#### Networked Regions and Cities in Times of Fragmentation: Developing Smart, Sustainable and Inclusive Places









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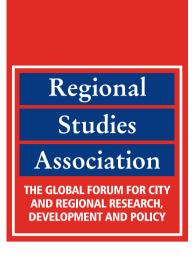
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### Networks Regions and Cities Times of Fragmentation: Developing Smart, Sustainable and Inclusive Places

Annual European Conference

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Delft University of Technology, Delft The Netherlands

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#### **Delft University of Technology**

Delft University of Technology was founded in 1842 by King Willem II as the 'Royal Academy for the education of civilian engineers, for serving both nation and industry, and of apprentices for trade'. The Academy also educated civil servants for the colonies and revenue officers of the Dutch East Indies.

The TU Delft (as it is known in the Netherlands) is probably best known for its engineers which designed the Dutch dikes and other defences against the sea. However, civil engineering is only one of the 8 faculties of TU Delft. They offer 14 bachelor programs and more than 30 master programs. The University has 17,000 students and an academic staff of 2,600.



OTB Research Institute for the Built Environment and the Faculty of Architecture are hosting the 2012 Annual RSA conference. OTB and the Faculty of Architecture provide specialist teaching and research in the areas of architecture, urban and regional studies, spatial planning and housing. Later this year OTB, currently an interfaculty research institute in the university, will become part of the Faculty of Architecture.

#### **OTB Research Institute for the Built Environment**

OTB was founded in 1985 and combines scientific and applied research on a national and international scale. Its research covers the areas of housing, urban, mobility and geo-studies. The research activities deal with the built environment, and refer to aspects of the technological sciences, the policy and management sciences, the behavioural sciences, spatial disciplines and the application of information and communications technology. This research profile is directly connected to the mission of the institute to conduct strategic research on the built environment in which both a fundamental understanding and application of results are central objectives. More specifically, research on the built environment is focused on the design and use of system innovations. The interplay between technical components and societal issues forms a key element of the research.

Research is carried out by multidisciplinary teams of experts in housing, systems engineering, policy analysis, management, architecture, social geography, town and country planning, economics, sociology, civil engineering, law, geodesy and GIS technology. OTB has over 100 staff of whom over 75 held research posts (among which 20 PhD-students). Also OTB hosts on average about 30 international guest researchers each year.

The research at OTB is organised within six themes:

- Urban renewal and housing
- Housing systems
- Urban and regional development
- Sustainable housing transformations
- Geo-information and land development
- GIS technology

OTB is involved in various national and international research projects and programmes and also hosts the office European Network for Housing Research

#### **OTB Building**



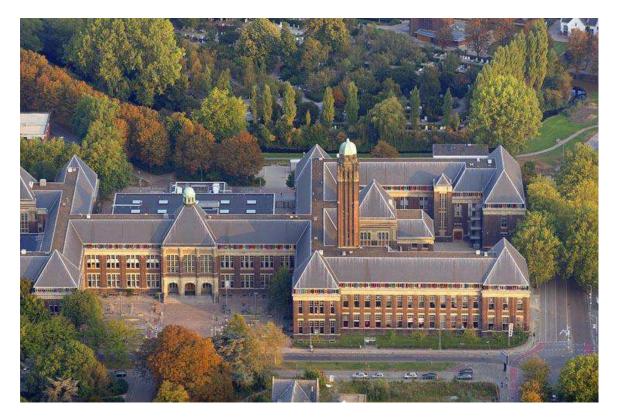
#### **Faculty of Architecture**

The Faculty of Architecture is the largest, oldest, most international and most prestigious of the two faculties of architecture in the Netherlands. As such it attracts more national, European and international students, what makes it the largest faculty of the TU Delft in terms of students. The faculty has about 160 PhD-students. The faculty's mission is to make significant contributions to finding solutions for pressing social issues, both nationally and internationally. It provides Bachelors, Masters and PhD programmes to more than 3,000 Dutch, European and international students. It also conducts research on its different specialisations. Teaching and research are organised in four main areas: Architecture, Urbanism, Real Estate and Housing and Building Technology.

Since 2008, the faculty is housed in the former head office of TU Delft, located at the beginning of the campus, very close to the centre of Delft. The building has been adapted and renovated to house the faculty and has won national design prizes. The university is keen to promote the building as an international example of the sustainable reutilisation of buildings with great monumental significance. As part of this ambition, the faculty has developed the concept of BK City Slim, aiming to transform

the faculty into an energy-neutral and CO2-neutral building. This also provides a way of showcasing the knowledge and creativity of the staff in the faculty and other parts of TU Delft.

#### **Faculty of Architecture Building**



The Berlage Room



#### Dear Colleagues

We welcome you to this eighteenth Annual European Conference of the Regional Studies Association 2012, entitled 'Networked Regions and Cities in Times of Fragmentation: Developing Smart, Sustainable and Inclusive Places' which takes place in the beautiful city of Delft, Netherlands. The conference will be one of our largest.

These are interesting times for regional policy in many parts of the world. Internationally, including recently in the USA, there seems to be growing recognition of the importance of space-based policies but such patterns are uneven. In Europe, the recent publication of DG Regio's Fifth Cohesion Report highlights success on the ground but that much remains to be done. Indeed member states now face the need to deliver against the ambitious targets laid out in *Europe 2020*. Meanwhile, in England there is also a substantial change in policy focus taking place with the coalition government replacing Regional Development Agencies with Local Enterprise Partnerships which have considerably less funding and uncoordinated geographies. Needless to say, there will be much to discuss at the conference.

In many (but not all) countries, higher education is now facing austerity cuts and these are being applied unevenly across different subject areas. The effects are also being felt differentially by researchers at different career stages, with more funding cuts appearing to impact on early career researchers. It is not only in higher education that monies are short for travel and conference attendance – the effect stretches to all branches and tiers of government and to the private sector. In response, the Regional Studies Association is working hard to address members' needs in this challenging environment.

At this conference the Association will reinforce this message through its commitment of £250,000 of extra funding for the regional studies community and by highlighting its recently introduced new research grant scheme (up to a maximum of £10,000, \$16,000, €12,700) aimed at early career researchers. Monies can also be accessed to attend conferences, to travel, to run research networks and to support non-RSA conferences and events. These opportunities are on offer alongside the more traditional benefits of RSA membership which include the following publications (all received in both print and online format):

- Journals Regional Studies (10 issues a year); Spatial Economic Analysis (4 issues a year); and from next year, our new journal *Territory*, *Politics*, *Governance*.
- Magazines Regions (4 issues a year); Regional Insights (2 issues a year);
- E-subscription to 8 related Routledge journals;
- 30% discount of subject related books from Routledge, Edward Elgar and Wiley Blackwell.

Go to our website <u>www.regionalstudies.org</u> or talk to our staff or Board members to find out more about our activities. We encourage you to maximise the value of your membership.

We would like to say a special thank you to those who have made this event possible. Particular thanks go to Evert Meijers and his colleagues within OTB Research Institute who have been magnificent to work with and who have been longstanding friends to the Association. We also thank Delft University of Technology for their generosity and help. We thank all of you who have played a role as conference gatekeepers in helping to organise and coordinate the sessions. And we also thank all those who will be active participants in the conference for their time in writing and presenting their work, for chairing sessions, and for participating in the debate. Finally we would like to thank the staff team at the Regional Studies Association for their continuing professionalism and commitment.

Finally, please pencil in dates in your diary for our two international conferences next year, 2013 in Tampere, Finland from Monday 6<sup>th</sup> – Wednesday 8<sup>th</sup> May (inclusive) and in Los Angeles, USA from Monday 16<sup>th</sup> – Wednesday 18<sup>th</sup> December (inclusive). Details will soon be on the Association website.

We do hope that you enjoy the conference, and look forward to meeting you.

With all best wishes

David Bailey

Sally Hardy

David Bailey

Chair, Regional Studies Association

Sally Herdy

Chief Executive, Regional Studies Association

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# BRINGING THE COUNTRY TO THE TOWN: THE POTENTIALLY CONNECTIVE ROLE OF THE URBAN FRINGE *Wishardt Michelle*

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# PLENARY SPEAKERS ABSTRACTS

#### TERRITORIAL COHESION, TERRITORIALISM, TERRITORIALITY

# Andreas Faludi, Delft University of Technology, NETHERLANDS

The European Commission is proposing territorial cohesion to become more central to Cohesion policy and with it to the 'Europe 2020' strategy. This paper focuses on the notion of territory underlying territorial cohesion. Is it like a property, with a governmental body the owner? Seeing territory as something more diffuse and negotiable leads to a better understanding, not only of territorial cohesion, but also of European integration: Awareness that the terms we use so casually are rooted not in 'nature,' but in the poetic imagination, has the effect of freeing deliberation ... reveals ... the contours of a Europe that is ... about deconstructing frontiers so as to bring to light a civilizational space that is ... intensely urban, cosmopolitan, multilingual, and less hierarchical than in the past. (Loriaux 2008, 2) As a preliminary I argue that territorial cohesion is simply a more convenient label for what strategic spatial planning stands for. The message in the remainder of this paper is that the relations, in terms of spatial planning and/or the pursuit of territorial cohesion, between the EU and its members had better be looked at in conjunction with the meaning of territory. If that meaning is challenged, then so are these relations, and if that relation changes, then this implies changes to the meaning of territory, in both instances, naturally, with implications for spatial planning. Now, globalisation and also European integration challenge the meaning of territory. Thus, Scholte (2000, 3) sees the '...advent and spread of what are alternately called 'global', 'supraterritorial', 'transworld' or 'transborder social spaces.' What Scholte articulates is the metageography underlying the emergence of supranational institutions, metageography referring to spatial structures of thought underlying perceptions of the world. Such metageographies, Murphy (2008, 9) says, shape common views and, by way of extension, policies and actions. More specifically as regards the EU, '...a metageography clearly persists that casts states as the ... most important internal spaces and that treats politicalterritorial developments at other levels largely in terms of the ideological norms that underpin the modern state system.' However, Scholte (2000, 47) challenges the dominant metageography of the EU for its 'territorialism' seeing macro social space as '... wholly organized in terms of units such as districts, towns, provinces, countries and regions. In times of statist territorialism more particularly, countries have held pride of place above the other kinds of territorial realms...' I explore the implications for European spatial planning of the critique of territorialism with reference to the related concept of 'territoriality.' According to the Sack (1986, 19) territoriality is '...the attempt ... to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographical area.' (Emphasis in the original) Certainly in its statutory form, spatial planning relates to state territoriality and to the territoriality of its sub-national derivatives, but Burgess (2006, 102) identifies challenges to territoriality and the territorial state '...suggesting a complex combination of territorial and non-territorial functional principles.' Where European spatial planning is concerned, all this is only too evident, but as yet the challenge seems not to have been articulated in terms of territorialism and territoriality. The work of Haughton et al. (2010) on soft spaces is relevant her. Indeed, in Faludi (2010) I argue that 'soft planning for soft spaces' beyond the territorialism that is now characteristic of thinking about it - in fact of thinking about European integration as such - will be the future of European spatial planning. As Loriaux has been quoted as arguing, thinking in such terms implies deconstructing frontiers, with a liberating effect that represents as promising a perspective for twenty-first century European spatial planning as one might wish.

### LINKING INNOVATION AND SUSTAINABILITY IN URBAN DEVELOPMENT

#### Joan Fitzgerald, Northeastern University, USA

Innovation is at the core of urban sustainability and climate change planning. This presentation examines several types of innovation that have propelled cities in Europe and the U.S. into the forefront of achieving sustainability and economic development goals. The tour begins in Los Angeles, Austin and Stockholm, where different types of public-private partnerships are leading to clean-technology product development. For many aspects of climate change planning, it is important to have business on board. Energy efficiency is one such area and London, Charlotte, and areas of Colorado are implementing business-led strategies to dramatically decrease energy consumption. Innovation can also occur in city government. Malmö provides an example of how climate-change planning can transcend the traditional silos of local government and allow realization of a grand

vision for change. The eco-district is an innovation in land-use planning that can be the catalyst for supporting city-wide innovation in sustainable development. Malmö, Stockholm, Hamburg and Portland illustrate different approaches to eco-district development. Innovation, by definition, involves risk. The discussion concludes by examining where some initiatives have fallen off the rails and what it might take to get back on track.

# ECONOMIC GEOGRAPHY AS SEEN FROM ECONOMICS

# Harry Garretsen, University of Groningen, NETHERLANDS

Economic geography deals with the analysis of spatial interdependencies. Spatial interactions are at the heart of the 2012 annual conference of the RSA. Economists also feature strongly at this conference, so it seems the right time and place to ask what economics has to offer when it comes to the subject of economic geography. How can the analytical framework of (mainstream) economics be used to enhance our understanding of spatial interdependencies between countries, regions and cities? For a long time, the answer to this last question was quite easy. Mainstream economics had by and large not much to offer when it came to the analysis of spatial interactions and hence to the topic of economic geography. Most (sub)fields of economics were and continue to be devoid of geography. But even in those corners of economics where the relevance of geography was hard to ignore, the role of economic geography was at best limited. International economics is a case in point. It has long been recognized that distance, and hence geography, matters empirically for international trade, but until quite recently these were facts in search of a theory. Also in subfields that are by definition more directly aimed at understanding the determinants and consequences of the location of economic activity, like urban and regional economics, the attention paid to spatial interdependencies is often incomplete or simply non-existent. Much of modern urban economics simply does not care about economic geography since cities are, to use Masa Fujita's well-known phrase, 'like freely floating islands'. This means that a transfer of the city of Delft to the north of The Netherlands would have no implications for its 'performance' in terms of population or job growth. Against this background of the neglect of or at best rather partial attention paid to economic geography in economics at large, the arrival of the new economic geography (NEG) literature as initiated by Krugman (1991) remains an important milestone for it is precisely aimed at the (re)introduction of economic geography into economics. Twenty years down the road, when NEG itself can be said to have become middle-aged (Krugman, 2011) and to have been 'canonized' in textbooks (Brakman et al, 2009), this lecture will take stock of the NEG approach and doing will show what the analytical, empirical and policy contributions have been. In doing so, it will also become apparent that the NEG project has to some extent failed to live up its promise. Right from start, NEG has been criticized by for instance geographers and regional scientists for not being new, for constituting bad economics and for allowing only for a very limited role of geography. Whatever the merits of this critique (and it will turn out that the criticasters do score some points), it will be argued that the main problem of NEG it that has so far failed to live up to its own promise. In that respect, economics is actually moving backwards in dealing with economic geography 20 years after the launch of NEG. As a result, economic geography is still not taken seriously enough within economics. This is unfortunate because the theoretical and empirical tools of modern economics could be of much greater use for the analysis of spatial interactions.

### KNOWLEDGE, NETWORKS AND SPACE

# Johannes Glückler, Universität Heidelberg, GERMANY

Over the last decade, the network paradigm has gained wide prominence across the social sciences and in economic geography. The network paradigm, however, is so broad that between semantic metaphor and formal metrics many uses and perspectives have established. While economic geography is characterized by a legacy of network rhetoric (Grabher 2006), the analytic treatment of relational structures has been rather scarce until recently (e.g. Glückler 2007, Ter Wal & Boschma 2009). The aim of this paper is to engage more fundamentally with the broad arena of network research, to appraise its recent achievements and challenges, and to explore conceptual opportunities with respect to the geography of knowledge. The paper puts particular emphasis on organized networks of enduring inter-firm cooperation as opposed to clusters (Glückler 2012). The argument develops along three sections. First, the paper distinguishes four realms of network research where each has generated considerable relevance within the study of the geography of knowledge. The term network research is chosen as an umbrella to include four analytical levels of scholarly concern: network as a perspective, network as a methodology, network as an object of knowledge and, finally, network as a body of theory (e.g. Borgatti &

Halgin 2011, Salancik 1995). Along these levels of network research, the paper reviews important achievements and explores the role for economic geography in accounting for knowledge generation and reproduction within and across regions. An obvious critique, here, is the reluctance with which geographers treat networks conceptually. The paper discusses conceptual challenges, both, within the quantitative network paradigm, e.g. network dynamics and network multiplexity, as well as between quantitative and qualitative approaches to network theorizing, e.g. the controversy of connectivity and culture (e.g. Mische 2011). Second, the paper assesses the utility of current network research for the geographical analysis of knowledge generation and reproduction. Here, two problems are addressed: the first discusses the contingency of geography as an external condition to the outcomes of network structure while the second reflects on the problem of knowledge spillovers as transcending the logic of connectivity, thus pushing network theory to its limits in the explanation of knowledge generation (Owen-Smith & Powell 2004). Third, the paper focuses on networks as an object of knowledge within the geography of knowledge. Economic geography has dedicated major effort to the analysis of inter-firm networks. The public desire for successful regional networks has fuelled network and cluster policies, often however, with limited success. Most research has been focusing on individual advantages of focal actors within total or ego networks. However, the effects and outcomes at the network level have largely been ignored. In turn, research at the network level is still very scarce. Only recently has emerged a systematic interest in networks as organizations and their governance challenge (Provan et al 2007, Provan & Kenis 2008). By taking a perspective of relational geography, this paper uses explorative data, both quantitative and qualitative to provide some empirical evidence of the pioneering phenomenon of organized inter-firm networks.

# 'THE ENERGETIC SOCIETY - OR: HOW TO CONCEIVE OF GOVERNANCE IN THE 21ST CENTURY?'

# Maarten Hajer, University of Amsterdam, NETHERLANDS

Government has much to gain from a better utilization of its citizens' creativity and innovation potential. With a different philosophy of governance as well as a new mindset, government may affectively improve development towards a cleaner economy. Ecological boundaries are well-known. Many entrepreneurs and institutions already consider ecologically responsible behaviour as a precondition for success within a changing world; a world in which nine billion people are all entitled to their share of scare resources. By combining the mindset of 'green growth' with 'the energetic society', a new perspective is created on the role of government: one that considers the long term and that creates opportunities for society. In his lecture, Maarten Hajer describes ways in which such a new philosophy of governance could be formed.

#### THE ENDLESS UNALTERED PEOPLE: SOCIAL DARWINISM AND HUMAN CAPITAL

#### Peter Hall, University College London, UK

Rigidly they persisted, linked, through lengths and breadths of time. Snow fell, undated. Light Each summer thronged the glass. A bright Litter of birdcalls strewed the same Bone-riddled ground. And up the paths The endless altered people came, Washing at their identity. Philip Larkin, An Arundel Tomb (1964) There has been much analysis of the need to improve transport linkages in order to shrink effective distances and thus to reduce inter-regional and inter-urban differences in economic performance in EU member states. Cha-Lin's recent research provides evidence of this effect resulting from the introduction of high-speed train services in the UK and France since 1980, but also appears to confirm other research: that improved transport links can fortify the development potential of places that demonstrate that potential in the first place, but may do little for places where that potential is not manifest. Here attention needs to shift to other possible explanations and to other policy solutions. Prominent among these is the quality of human capital. Some researchers, echoing an old places-versus-people regional debate, suggest that places do not matter; their people do. This may well be true; the question is how human performance can be improved. Path dependency theory has been useful in suggesting ways in which places can escape from old economic and social structures. Here it is important not merely to take snapshots of performance at points of time, but also to understand how social structures evolve over time. A socio-economic historical approach, using contrasted local case studies, may be most illuminating here. We know that over time societies have shown amazing capacity to make rapid adjustments to new circumstances most dramatically, in the first industrial revolution in Europe and now in the cities of rapidly-industrialising nations like China and India, where millions pour in from the countryside and soon learn industrial thought ways. But equally, we can see that in some old-industrialised places the capacity to grow and change appears to ossify: the 'endless altered people' cease to alter. One obvious explanation is that adaptation from the industrial economy to the knowledge economy is a much harder process to undertake, involving as it does both formal education and training, but also the capacity to engage with new knowledge. Cross-sectional studies so far, from bodies like OECD and the EU, seem to suggest that this may be particularly difficult for smaller and more isolated urban places. Understanding precisely why this should be so, and how to overcome it, appears to be one of the most fruitful avenues for regional studies.

# STILL AN ERA OF REGIONALIZATION? A REPORT ON NEW DATA FOR 81 COUNTRIES ACROSS THE GLOBE

# Liesbet Hooghe, University of North Carolina at Chapel Hill, USA

Is this still an era of regionalization? To what extent has authority been dispersed to regions? Has there been convergence in the organization of multilevel government, or is there persistent divergence? And how can one explain variation in centralization and decentralization? These and other questions will be addressed by means of new data on the evolution of regional authority in 81 OECD, European, Latin American, and South-East Asian countries from 1950 to 2010. The Regional Studies Conference is the first occasion to introduce these data to the scholarly community. First, the data confirm that the past sixty years have been an era of regionalization. Change is measurable, but subtle; it becomes apparent when one escapes methodological nationalism, which boils regional government down to a limited number of national categories, such as unitary, federal, or confederal. Few countries have jumped from one category to the other, but many have engineered basic reforms of regional government that have led in the direction of greater regional authority. Deepening regionalization has occurred in Europe, the rest of the OECD, Latin America, and South East Asia-albeit at different times, and to different degrees, and with only a handful countries swimming against the trend. Second, similar change has not led to convergence. There is instead continuing, and potentially widening divergence in the structure of government. The standard deviation in country scores is as great in 2010 as it was in 1950 or 1970. Third, we detect common engines of change and continuity across the 81 countries, in particular, the demands of scale and efficiency, community and diversity, and democracy. The preliminary conclusion is that the causes of government structure can be generalized across regions, countries and continents. So, for example, democratic transition improves the opportunities for decentralization whether it takes place in Latin-America, Europe or South-East Asia. Where government portfolios expand to include welfare, environment, or education, one may expect pressures for decentralization. Still, the large dataset allows one to probe more deeply in causality to ask: is there a 'Latin-American way' or an 'Asian way' of structuring government that is recognizably different from the 'OECD way'? This question needs to be confronted head-on. After all, much theorizing about decentralization has a keen appreciation of diversity among the regions of the world. Does it make sense to treat regions or countries as independent units of analysis, or should one treat them as causally connected in world regions?

#### **EUROPE'S TERRITORY TOWARDS THE YEAR 2020**

# Karl Peter, ESPON, GERMANY

Present long-term political thinking is targeting the year 2020. The joint Europe 2020 strategy wants Europe to become a smarter, more sustainable and more inclusive place to live in. The ministers responsible for territorial cohesion in the member states agreed, last year in Gödöll? (Hungary), on a revised Territorial Agenda of the European Union 2020 taking into consideration the recent developments described in the updated Territorial State and Perspectives of the European Union, on the Commission's Fifth Report on Economic, Social and Territorial Cohesion and on the Europe 2020 Strategy and aiming at adding a territorial dimension to Europe's growth strategy. And the European Commission, the European Parliament and the EU Member States are currently preparing for the next seven year Structural Funds period 2014 to 2020. The presentation will focus on the territorial dimension of these European growth and cohesion targets and strategies and will present empirical evidence from a scientific perspective. It will point out some core challenges of the state and development perspectives of the EU territory focussing on the analysis of the diverse regional conditions for smart, inclusive and sustainable growth and territorial cohesion in the EU. By doing so the presentation will

summarise some key scientific findings for an evidence-based scientific policy support, and it will also try to identify some gaps and needs for further research on policy oriented territorial research in Europe.

### MULTISCALARITY, METROPOLITAN GOVERNANCE AND THE CITY OF DELFT

### Bas Verkerk, Municipality of Delft, NETHERLANDS

The city of Delft is located in one of the most densely populated parts of is the Netherlands, one of the most densely populated countries in the world. Within a 20 km radius from Delft, there are 2 larger cities (Rotterdam, The Hague) as well as a handful of others of about the same size as Delft. The fortunes of Delft are increasingly closely intertwined with that of its urban neighbours. Effective regional governance is essential to develop Delft and the larger metropolitan area, which is nowadays known as the Metropolitan Area of Rotterdam - The Hague. The mayor will discuss the existing arrangements for regional coordination and co-operation in this metropolitan region, particularly addressing how the 'multiscalarity' of spatial development issues demand tailor-made solutions for regional governance. The most recent initiative for regional governance in which the mayor has taken a leading role is the development of the 'Metropolitan Area of Rotterdam - The Hague' in which the city of Delft is centrally located. This initiative can be considered a direct response to the failure to organize regional governance in the Randstad over the past decade. The mayors of The Hague, Delft and Rotterdam have taken a lead in fostering greater integration of these cities and surrounding municipalities, in order to provide citizens and firms with a wider variety of opportunities. The mayor will elaborate the role that local government can play in fostering such regional integration, and illustrate some of the difficulties involved in such an endeavour.

#### Gateway L1

# FROM CLUSTER POLICIES TO GEOPOLITICS OF CLUSTERS: SEEKING ALTERNATIVE INTERPRETATIONS IN THE CONTEXT OF EUROPEAN SPATIAL GOVERNANCE

#### Toni Ahlqvist, VTT Technical Research Centre of Finland, FINLAND

European spatial governance is becoming an intriguing mix of ideas from economic, political and cultural spheres. In the prevalent mindset, the 'economic' is usually perceived as the pace-setter of societal development, while the 'political' is seen either as its administrative reflection or, at the most, a perpetual runner-up. Nonetheless, it is a specific form of 'economic' that is driving the game, namely one emphasising constant renewal through innovations. Adapting Rose and Miller (1992), it can be argued that this specific understanding of the 'economic' has emerged as a critical governmental problematic, i.e. as a position in which political processes are increasingly valued and made calculable by their contributions to the innovative capacities at different spatial scales and across varied societal spaces. Concomitantly, the fields of geopolitics and political geography have witnessed alike arguments about the changing borderlines between the 'political' and the 'economic'. For example, Cowen and Smith (2009) have proposed that the 'geopolitical social', as the project of making the national society and national territory, is currently being 'recalibrated by market logics'. From the perspective of spatial governance, this intermingling of the 'economic' and the 'political' elicits new kinds of boundary objects and hybrid practices. The paper suggests that one such hybrid practice is emerging through a political dimension connected to the notion of the 'cluster'. By politico-geographical dimension the paper refers to meta-level, and increasingly transnational, practices that are made in the name of 'cluster' by different actors. These practices travel beyond the more canonised policies that emphasise cluster implementation and development at various spatial scales. The paper suggests that there are significant spatial practices - especially in the context of the spatial governance of European Union (EU) - that go beyond mere promotion of cluster development in state territories and regions. Based on these premises, the paper argues for a geopolitical perspective towards clusters and the process of clustering, a perspective that augments the more established economic geographical conceptualisations of clusters, agglomerations, and related policies. The paper asserts that in the European context, the 'cluster' is currently being scripted as a spatial political idea, emphasising the building of new kinds of transnational, and increasingly digital, spaces of competitiveness. The 'cluster' is thus translated into a "problematic of government" (Rose and Miller 1992), i.e. a specific way of setting questions and solutions concerning spatial governance in Europe. However, the intention here is not to suggest that the emerging political dimension is somehow overhauling the traditional Marshallian, Porterian or any other regional, network-based, or material – definitions of the 'cluster', but to propose that a geopolitical perspective

could help geographers and regional scholars to illuminate the emerging transnational spatial fixes in the context of the European innovation economy. The paper outlines a theoretical argument on geopolitics of clusters, and provides selective empirical examples from EU. The empirical outlook focuses on two perspectives. Firstly, the 'cluster' is analysed as a mediating instrument to stimulate and re-scale transnational market developments in the EU. Secondly, the 'cluster' is studied as a technology of spatial management that builds on a business managerial ethos and endorses a specific hierarchical spatial imaginary and a cluster evidence-base to assess productivity and efficiency of European clusters.

#### Gateway N FINANCING OF ROADS INFRASTRUCTURES IN ALGERIA: THE CASE OF THE HIGHWAY EAST- WEST

#### Smahi Ahmed, University of Tlemcen, ALGERIA

The road projects are undertaken to improve the economic and social welfare of users and populations served. Thus, the road is positioned at the heart of planning, since it is what will create a coordination and synergy between different roads, participates in the hierarchy of the urban ensures, in particular economic exchanges between different regions of a country and helps to reduce transportation costs. The development of communication channels is also an essential instrument of any policy planning and development of a country. At the dawn of the third millennium, Algeria faces major economic challenges in a global environment dominated by market forces and competitiveness, and where communication networks play an increasingly important. The realization of the highway east-west length of 1216 km, and a real global cost and 11 billion dollars, is the liaison between Annaba and Tlemcen with serving the large pole directly affecting 24 wilayas, and is part of a National Spatial Planning (SNAT), it will reshape the territorial occupation, and rebalance the territory to give an attractive cities in Algeria in the Euro-Mediterranean framework Maghreb and in order to attract investment to the poles of competition and excellence. The problem of our work is mainly to highlight the review of public projects including the east west highway through the economic and financial mechanisms and to identify sources of funding for this infrastructure while ensuring give directions when necessary to diversify sources of financing involving challenges in a world affected by the financial crisis.

#### Gateway G URBAN ASSEMBLAGE: ELAT

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The European territory is constructed of a network of cities which no longer can be treated as unrelated entities. This paper explores the formation of such network known as ELAt (Eindhoven, Leuven, and Aachen Triangle) and its influence on the spatial reorganization. The three cities of the Triangle are forced into a new transnational organizing logic to enhance their competences and competitiveness on the global market. The Triangle is a transnational network crossing various administration borders such as municipalities, provinces and national borders. The network of ELAt is centred on high-tech innovation and knowledge based on a triplehelix model. Triple helix model involves actors from the three pillars of the society (business, government, and civic society). The consequence of such networks is that the spatial development mismatches the administrative borders leaving the scales of development without governmental representation. To analyze and describe the impact of such networks on spatial reorganization and the role that spatial disciplines play or could play in the development, it is important to understand how these networks come into being and how they develop over time. The Actor Network Theory (ANT) has shown positive analytical results in the context of spatial development. Yet, as well as researchers as practitioners in this field must recognize the importance of complementing these advances with improved understanding of the patterns of network-activities that need support through spatial disciplines. The questions this research tries to answer are: How does an urban network develop and what are the motives and goals of the driving forces behind them? Further, the paper explores and explains the driving forces behind the network formation according to Actor Network Theory and will give insight in as well the motives and means of various stakeholders as the influence of the network on spatial reorganization. Formation and major opportunities and bottlenecks of the Triangle will be subjected to a method of reconstruction which demonstrates four phases of development concentrating on the actor-relations. Thus, this paper investigates the potential of ANT in analysis and description of development on the subject of urban networks and spatial reorganization. The aim is also to contribute to the conceptual tools of ANT in this context.

### Gateway J1 THE INFLUENCE OF SCIENCE AND TECHNOLOGY PARKS 'CHARACTERISTICS ON FIRMS' INNOVATION RESULTS

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To date literature on evaluation of Science and Technology Parks (STPs) (and more in general on agglomerations) has focused on assessing their impacts on tenants, often drawing contrasting conclusions, to such an extant that some authors have referred to STPs as 'high-tech fantasies'. According to other authors STPs are a way to foster technology transfers from academia to industry and to promote the growth of innovative firms. One possible explanation of these contrasting results is that some parks work well, while others do not. However, to our knowledge there has been no attempt to analyze if some characteristics of STPs contribute to improve performance. The purpose of this paper is to study the effects that park's age, dimension (proxied by number of tenants and squared metres) and location (in terms of technological development of surrounding environment) have on the innovative performance of its firms, measured by the turnover from products new to the market (as a percentage of total turnover). To this end we have used the 2009 Community Innovation Survey for Spain (published in 2011) managed by the National Statistics Institute. Compared with previous studies on STPs, our work can rely on a much wider sample of firms and takes into account a larger number of STPs: the 2009 survey collects information on 37.201 companies, 849 of which are located on 25 STPs in 12 different Spanish regions, allowing for higher heterogeneity across STPs than previous studies. One advantage of this survey is that it provides very detailed information about the characteristics of innovation process of firms, thus allowing us to use a wide set of covariates. We employ multiple linear and non linear regression techniques and deal with the sample selection problem caused by the endogenous decision to locate inside a Park. Preliminary results show that: a) The age of the park has a non-linear effect on innovative performance. Firms located on younger and older STPs show better innovative performance. We interpret this result as showing the confluence of two different types of impact on tenants. First, a short-term impact, probably due to increased visibility or reputation and, second, a long term impact, related to the better access to external knowledge. b) The dimension of a STP, in terms of number of tenants, positively affects the innovative performance of its firms: the more tenants the park has, the better innovative results firms obtain. This finding can be interpreted as the result of agglomeration economies. No evidence of congestion effects is found. c) Firms in less technologically developed regions benefit more from being on-park. This finding supports the view of STPs as a local development policy instrument.

#### Gateway J

# A SET OF COMBINED ANALYSIS TO MEASURE THE MANUFACTURING COMPETITIVENESS AND VULNERABILITY OF THE REGIONS

### Michele Alessandrini, T33 Srl, ITALY

The European regions shall face the increasing global competition. Stakeholders and policy decision makers understand the threats affecting the development of their territories but do not have a clear picture of the magnitude of the challenge and the economic repercussions on the regional productive manufacturing sectors. This could become a real issue in the coming years when the new Cohesion Regional Operational Program (ROP) has to be drafted. The need of a more focused (thematic priorities) and more result-oriented policy (conditionality and performance) demands for a sharp and methodical diagnosis of regional strengths, weakness and opportunities in the manufacturing sectors. The typical analysis on the regional competitiveness performed by the ex-ante evaluation of ROPs or the existing index (e.g. the EU Regional Competitiveness Index) take into account a general range of economic and social factors – such as innovation and technological capabilities, transport and communication infrastructure, health, education policies, quality of institutions. But there is still

an additional need to assess the real degree of competitiveness of the regional manufacturing sectors through a detailed and structured economic analysis of the regional pattern of international trade specialization. Based on the most recent economic literature and empirical findings on international trade, this paper illustrates an experimental set of analysis which provides a picture of the level of regional competitiveness and vulnerability through the screening of the patterns of international trade specialization in the last two decades and investigates the effect and the intensity of the competition on manufacturing sectors coming from emerging countries. More specifically, the paper provides the findings of a test for Italian Regions toward Chinese competition. The analysis is based on the Lafay index, which, by including imports, allows to control for intra-industry flows (this is not the case for instance for the Balassa Revealed Comparative Advantage index widely used in this kind of studies). In particular, we explore the level of sophistication in the pattern of specialization of the Italian regions in order to assess whether there has been a significant shift towards those sectors that have experienced the fastest growth in world demand and which tend to be characterized by high technological content. We further consider the level of dynamism in the regional trade specialization of the Italian regions by looking at the transition matrix probabilities, which measure the probabilities that individual sectors become more or less specialized over time as a function of their initial degree of specialization. We then investigate and compare the pattern of specialization of the Italian regions with the specialization occurred in China in order to assess the degree of similarity amongst the trade patterns. Moreover, by calculating bilateral trade indexes between each single Italian region and China, we study the evolution of trade flows occurred in the Italian regions by evaluating the degree of trade dependence from China and by examining in which sector and in which Italian regions the competition of the Chinese product categories has been the most threatening. Finally, we draw some conclusions aiming at assessing how this experimental analytical tool can provide new information regarding the traditional ex ante evaluation used in Italy and we make some operational suggestions for the policy actors dealing with the global competition challenges.

# Gateway M NEW SPACES OF NEOLIBERAL SPATIAL GOVERNANCE

#### Philip Allmendinger, University of Cambridge, UK

English spatial planning is undergoing significant reform including the creation and destruction of scales and spaces. This paper explores these on-going changes focusing in particular upon the changing relationship between hard and soft spaces of planning. We argue that previous analyses of this relationship have underplayed the elasticity of hard spaces as the scope and scale of statutory planning spaces stretches to 'fill' and 'reach into' gaps and create functional planning areas. We also propose a new understanding of the co-existence of hard and soft spaces as they cooperate, compete or disregard each other depending upon the specifics of a locality or the overall planning ethos. An ethos of austerity is more likely to involve competition as opposed to the more cooperative relationship characteristic of the previous era of spatial planning.

#### Gateway O1

# GROWTH BARRIERS OF CREATIVE INDUSTRIES FIRMS IN SHRINKING REGIONS AND CHALLENGES FOR POLICY AND FIRM STRATEGIES

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Companies and self-employed persons (in the following text company will address enterprises with more than one employee as well as self-employed persons) have to cope with effects of a demographic shrinkage. The strengths of possible impacts on the companies as well as necessary adjustments regarding the entrepreneurial acting towards those effects depend on factors like the economic branch of the company and the markets the company is active (e.g. local or export markets). Institutional support might absorb some challenges which emerge because of the demographic shrinkage. The paper is based on research on the creative industries in a shrinking city (Cottbus, Brandenburg, Germany). The research is part of the Interreg IVb project "Urban Creative Poles" (UCP). UCP is a project which aims to support the CCI with different instruments in five European medium-sized cities. Expert interviews with CCI companies have been conducted and analysed in a qualitative and quantitative way. The creative industries are by themselves a heterogeneous economic sector which merges branches like advertising, design, performing and visual arts and others into one concept. Each branch does have to deal with our own prerequisites to act successful on its markets. Companies of the creative industries may have more problems to meet the challenges of a demographic shrinkage as they usually consist of small and medium sized companies. Impacts of the demographic shrinkage can become growth barriers for the firms. The question arises what specific problems do companies of the creative industries encounter in shrinking regions (in this case in the city of Cottbus and the region of South Lusatia, Brandenburg)? Do companies in and around Cottbus recognize the challenge and how do they react? What are the differences of each branch of the creative industries regarding the demographic challenge and their reactions? Institutions and public support play an important role to foster companies with the help of instruments of urban planning and business development. Especially the topic of the creative industries has become an important one for public support institutions in metropolitan areas and major cities. The number of economic and spatial development plans which has taken the creative industries into account increased in recent years. In many smaller and medium-sized cities as well as in regions afar from metropolitan areas support institutions have not taken the creative industries into account that strongly. This is true for Cottbus as well. Regarding the institutional settings the question arises how the CCI can be supported in areas afar from metropolitan regions? Is a promotion of the CCI in peripheral and shrinking regions reasonable when looking at the supposed superiority of metropolitan areas and major cities? Which instruments might be applicable for the specific conditions of shrinking cities and regions? To give answers to those questions literature and other support projects (e.g. different projects from the EU to foster the creative industries) will be reviewed. It will be analysed what strategies and instruments as well as empirical findings from demographical growing metropolitan areas and major cities might be transferred to shrinking non-metropolitan regions and cities. Own research findings and practical evidence from the project "Urban Creative Poles" (UCP) will be incorporated.

#### Gateway B FRAGMENTED DECISION-MAKING: GOVERNANCE BARRIERS TO DECARBONISING TRANSPORT

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This paper offers a synthesis of findings from a recently completed doctoral thesis. It is an international comparative study looking at the extent to which fragmentation between levels and departments of government in policy development and processes contributes to the difficulty in successfully reducing transport emissions. The substance of policy is all too often the primary focus of research, leaving the settings in which these policies are developed and implemented relatively underexplored. Examining the relationships and interplay that exists between departments responsible for climate change and transport at the sub-national (state) level and those with their local and national counterparts, this research tries to unpick the organisational intricacies that may act as barriers to delivery. Sub-national (state) governments have become a promising source of action to reduce emissions from other sectors for which they have legislative responsibility; however, the private road transport sector remains a challenge. This research examines the barriers preventing such progress and whether fragmentation in decision-making - brought about by a lack of interaction and collaboration between departments and across levels of government - is responsible in part for these challenges. Taking a specific policy intervention designed to reduce transport-related emissions from four case study governments (Bavaria, California, Scotland and South Australia), the main hypothesis of the research is that there is a disparity between conventional environmental/climate change - and transport- policymaking practices - consequently efforts to implement policies to reduce the climate impact of transport are hampered. Each of the subject case study governments have been chosen since they are self-determined 'leaders' on climate change. This research serves to highlight some of the governance issues that need to be overcome or removed for such positive political intent to be realised. It posits that without successfully linking frameworks and interested stakeholders in the process, tangible emissions reductions will be difficult to achieve. The main objective of the research is to investigate the frameworks, interplay and dynamics at the sub-national level of government across departments and between levels of government. The relationship and collaboration with industry is also examined as a supplementary consideration. The second objective is to look at how and whether climate change policy can be more closely integrated with transport policy and the barriers to this integration. This investigation is underpinned by cross-disciplinary governance theory, as well as notions from socio-political governance and applies the concept of institutional interplay in this context between levels of government. It develops the concept of sub-national governance which argues that relationships between levels are distinct and nonhierarchical in terms of policy development and implementation. The research is guided by four research themes - scale, scope, leadership and process. Each of these themes has a distinct yet important part to play in understanding and comparing the case study contexts, in terms of the cross-departmental and cross-level interactions occurring within each of the sub-national governments.

# *Gateway L2* THE ARTS IN RURAL PLACE RENAISSANCE

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This paper focuses on the construction of socially creative places in rural areas as a result of original (tailormade) responses to deal with adversity. These responses originate in novel concepts and strategies that have enough value to emerge as projects - real utopias guided by political visions and based on creative thinking - to be appropriated and developed by local communities (Friedman 2000). This gives rise to two sets of questions: (i - concerning the projects) to what extent are they creative? And socially creative? Who designs them? How are they expressed/communicated?; and (ii - regarding the appropriation process) how, why and by whom is participation ensured? Does it involve a change in social relations?. The concept of social creativity in the context of local development corresponds to collective knowledge, visions and intuitions that engender the 'power to connect the seemingly unconnected' (William Plomer). Socially creative places come to light as dynamic territories open to change and, at the same time, able to preserve or recreate their identity and coherence. This capacity seems to be facilitated by the combination of three conditions: (i) cultural diversity and dialogue;

(ii) tolerance and acceptance of the risk to be creative;

(iii) the interaction between (shared) memories and (collectively desired) futures.

These conditions draw in creative people, artists in particular, and stimulate new pathways of local development. This is quite relevant for projects in socially creative places, not only because the arts inspire creativity across a range of other existential fields (citizen participation, social care, economic initiatives,...), but also because they have a specific ability to convey meaning across different cultures and social groups. The recourse to diverse forms of expression and to metaphor makes it possible for art to transcend the obvious and to communicate beyond the confines of everyday language. The aesthetic experience contributes to enriching individual experiences and to challenging the excessive emphasis on the materiality of everyday life. This role played by the arts in association with communication is also crucial for the appropriation and development of the projects on the part of the local community, thus strengthening the local identity by engendering new forms of expression. To develop a socially creative place means to simultaneously mobilize critical thinking, imagination and communication. From this point of view, the arts can play an important role in inspiring new social bonds and ties. Generally speaking, the arts emphasize performance, as opposed to 'conformance'. Their capacity to impart meaning even to unrecognized feelings or beliefs - transforming impressions into expressions - is essential in order to overcome dissonances and cleavages, to generate new consensus platforms and to explore new possibilities. The specific aim of this paper is to discuss the construction of socially creative places - both as projects, processes and practices - that are inspired and encouraged by the arts. The discussion draws on a specific case-study: the small rural city of Montemor-o-Novo (around 9,000 inhabitants in 2011), which is located in Alentejo, Portugal. In response to the adversity experienced in what is the poorest region in Portugal, the local left-wing authorities have over the last three decades pursued a local development strategy of which culture and the arts constitute the central pillar. This has made it possible for an interesting and dynamic local 'cluster' to emerge based on the interaction between various forms of artistic expression, including dance, theatre, sculpture, photography and video art. Three critical features of this case-study are particularly interesting in the context of this discussion:

- (i) the political vision of the project;
- (ii) (ii) the links between memories (historical buildings) and novelties (artistic production, innovative socio-cultural movements and actions, creative small enterprises); and
- (iii) (iii) the relationship between the cultural and artistic agents (mainly outsiders, at least in the first stages) and the local community. This is, in sum, a paper that addresses and discusses socially creative forms of rural renaissance real utopias and the ways to encourage, inspire and pursue them.

# REAL ESTATE FINANCE VS THE GROWTH MACHINE. WHAT ARE THE CONSEQUENCES OF FINANCIALIZATION ON LOCAL PROPERTY MARKETS? AN ANALYTICAL FRAMEWORK

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Guido Anselmi - Università degli studi Milano Bicocca, Urbeur phd candidate. Session G3 Financialisation and the built environment: what does it mean for city-regions? The study of local real estate markets is a topic that has always attracted the attention of urban sociologists. In the last years of the '80s, some significant pieces of research, were published; those works analyzed how the advent of new trans-local (Molotch and Logan 1987), financialized (Logan 1991) real estate firms, could modify the governance structure within which local markets were embedded (Granovetter 1985). Later on, in correspondence with the financial crisis of 2007/2009, other important works were published (Gotham 2006, 2009, Aalbers 2008) which, building on the concept of "capital switching" (Harvey 1985), investigated on the connection between the financialization of world economy and the changes within real estate industry. Given, however, a fair number of works studying the effects of financialization of real estate markets in general, the amount of research that analyzes the impact of these new actors, from the financialized real estate industry, on local governance arrangements remains rather small. Thanks to the work of Sassen (1994) and Fainstein (1994), we learned that the process of financialization has favoured the rise of transnational developers such as Hines or Olympia and York, who, having played a key role in the restructuring of global cities such as London and New York, may, however, have contributed to the marginalization of local real estate firms; this happened because of their superior ability to access credit, manage risk, exploit economies of scale and positive externalities (Molotch and Logan 1987 pg: 237). Despite these studies, however, we are still far from understanding what may have been the impact of these new actors on local property markets and whether the advent of these new firms has, in fact, led to the marginalization of local players. This has happened for two reasons, in the first place, because there are few pieces of research that address the problem, secondly, because there are no comparative studies on the subject. The contribution that I want to bring with this work, to the field of urban sociology and to urban studies in general, goes towards bridging these gaps: what I want to propose, is a model for comparative analysis of those urban development processes that involve these new firms of financialized real estate industry. My main theoretical framework will be urban political economy (Molotch 1973, Stone 1989), therefore, I will frame the local property market as a product of a governance system, on which the interests of local economic elites can exert a major influence. The comparative framework that I will be using, builds upon the concept of 'bargain power', developed by Hank Savitch and Paul Kantor (Kantor, Savitch, Vicari 1997, Kantor and Savitch 2002, 2005). The value of the comparative method in this field of inquiry is undeniable, as it allows the researcher to assess the effect of the local rentier elite's agency, while taking into account the structural factors that may influence the development of an area; this, in turn, enables the researcher to formulate more generalisable observations. As regards the variables that comprise the model: the dependent variable is the type of integration existing between the members of the local rentier elite and the new real estate firms; in other words, by looking at a process of urban renewal, we want to measure whether or not the local elites will be able to reap some benefits, in terms of an increase in values of ground rent or other positive externalities, triggered by the project (e.g. increase of foot traffic and, as a consequence, of retail trade sales). On the other hand, in the model there are three independent variables. The first is called 'intergovernmental support', which measures the level of support and integration existing between municipal government, regional government and national government; in the case of a strong integration we can assume that the bargain power of the local system of governance increases. The second variable is called "market conditions" and measures local economic conditions (e.g. the vitality of local property market, the presence of a skilled workforce and how much office space is available in the area) in order to understand whether or not the local area has some appeal in the eyes of investors. The third, and last, variable is called "local power structure", it measures both the composition of the local elite and the degree of influence that they are able to exert on local policy choices regarding urban development.

# Gateway NI AIRPORTS AS NEW URBAN ANCHORS

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As large cities continue to expand outward and dependence upon air transport continues to increase even after a rocky decade, large commercial airports may be emerging as central nodes in large U.S. metropolitan areas,

much as ports and rail terminals were in the past. We discuss how multi-modal transportation nodes can accumulate employment by servicing passenger, facilitating frequent travellers, and providing a spatial focus for unrelated firms. Our exploration is supported by an analysis of small-area employment data (Zip Business Patterns) for the areas surrounding 25 major U.S. airports and the related central cities. We find the concentration of employment within 2.5 miles of these airports to be substantial - approximately half that within 2.5 miles of the central point of the corresponding CBDs. Although recently passed by CBDs, airport area employment growth rates were higher than those of suburban employment as a whole. Our analysis refocuses a key question about the future of intra-metropolitan spatial structure and points to a need to re-orient urban theory and practice to take contemporary transportation patterns into account.

#### Gateway D1

# COULD THE NEW COHESION POLICY (2014-2020) PRODUCE MORE SPATIALLY JUST OUTCOMES?

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EU cohesion policy that started through the evolution of the Structural Funds has changed a lot during the last 25 years. The first two programmatic periods were dominated by an economistic way of thinking that paid very little attention to the spatiality of cohesion and the subsequent spatial injustices that capitalism produces. For the last two periods a move towards more geographical policy thinking was introduced through a particular attention to the sustainable development of regions and cities, the benefits of industrial clustering, spatial inequalities etc. The proposals for the cohesion policy of 2014-2020 that were introduced by the Commission in October 2011 include another conceptual turn; a more relational one, that emphasizes place based approaches, bottom up planning and less horizontal policy making and priorities. Evidence of that relational geography can be found in the Barca report and the reports and proposals that followed Barca¢s report. Relational geographical thinking can be regarded as a more spatially just way of producing policies for the development of cities, especially for those cities that have been stuck in an unproductive and less developed trajectory (cities and regions of the European South), and could not follow the development trajectory of more prosperous regions; nor could they transfer successfully the policies and best practices of the latter. In that respect the paper asks a fundamental question that is whether the new proposals for the cohesion policy of 2014-2020 can be regarded as truly relational and in what ways could they produce more spatially just policies and outcomes. In order to examine the relationality of the new cohesion policy proposals and the ways; space; is treated in them, the paper uses a set of conceptual tools (introduced by Healey, 2006) that have to do with the ways regions are positioned in relation to other regions, the ways hierarchies are being constructed, the connectivities and boundaries of different spaces, the openness and closeness of spatial scales, time and history, and whose conception of space is being privileged.

# Gateway O PUBLIC PARTICIPATION AS AN ELEMENT OF ADAPTIVE LOCAL POLICY-MAKING

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The agency of local actors within the political arena is often influenced by ideologies sustained by hegemonies. Economic theorizing on regional and local economic development, through its policy implications, may contribute to such an influencing of the agency. This hegemonic nature is the consequence of the hidden value-contents of such theorizing. This also implies that it is hegemonic only to the extent that the underlying value-choices remain hidden. Present paper argues that public participation and deliberation is of vital importance for economic theorizing on regional and local economic development. But instead of including public participation into economic models as a contributing factor of development or growth, it rather argues that public participation and deliberation should be incorporated into the process of moulding the policy suggestions (expert proposals). Therefore the main concern of this paper is a field for public participation and deliberation that falls outside the ordinary political arena. I propose that the capability approach of Amartya Sen could serve as a useful basis for economic theorizing and for expert proposals on regional and local economic development, because it provides wide opportunities to make the value-contents of expert proposals visible and leaves room for participation. However the capability approach must be complemented with a more elaborate view on the factors influencing the agency of local actors. On this basis I will introduce public participation and deliberation

as an element of adaptive policy-making, where the knowledge of experts and laypeople complement each other in the process of moulding policy proposals. The main point is not to expect engagement from local actors in developing concepts about the operation and possible change of the local economy, but to provide feedbacks on the welfare effects assumed by experts. Therefore the dichotomy of expert analysis versus public participation is transcended within this (post-normal) approach. Public participation as element of the adaptive policy-making is not proposed as an alternative for participation in the ordinary political arena, rather a complement that can make agency more effective at the political field.

#### Gateway M SPATIAL SYNERGIES AND CONFLICTS: GOVERNMENT POLICIES AND PROGRAMMES IN ENGLAND

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Following the 2004 Planning and Compulsory Purchase Act, the planning system in England was transformed from 'landuse' to 'spatial'. Spatial planning encapsulates a broader meaning than the pure landuse type of planning by emphasising critical thinking about space and places as the basis for intervention. In 2010, the Coalition government announced the wholesale revocation of Regional Strategies and introduced the Localism Bill which emphasised a fundamental shift from the previous top-down, and target-driven approach of spatial planning to an open source, local oriented style (using neighbourhood plans as a pro-growth mechanism). While the gravity shift to a more localised approach provides opportunities for developing more contextualised planning, this can only be achieved if a clear and well articulated national planning framework can provide the parameters for local planning authorities to deliver their planning policies. The National Planning Policy Framework (NPPF) was finally published for consultation in the summer of 2011 and has attracted much debate within and beyond the planning community. One of the main criticisms of the NPPF is its lack of a 'spatial' dimension. This begs the question of how local planning can perform the coordination and management role of sustainable development when there is a lack of an overarching spatial framework to join up different sectoral policies. Despite the fact that the draft NPPF is an 'aspatial' document, it is clear that government policies and programmes do have spatial implications. In some instances these spatial implications are more explicit, such as in the case of the high speed rail network proposal and other projects set out in the National Infrastructure Plan. Other mainstream government policies (e.g. on supply-side measures for tackling non-employment, on investment in flood risk prevention projects etc.) also have implications for the spatial distribution of economic activity and opportunity. These differential spatial operating contexts and potential outcomes are particularly important to inform local authorities if they are preparing local strategies and spatial plans to deliver the objectives of sustainable growth. Moreover, administrative boundaries at regional and local levels do not define functional entities. Economic, social and spatial processes do not stop at an administrative boundary. Rather, there are 'spillover effects' reflecting inter-area linkages. This is perhaps most clear in the case of London, the South East and East of England regions, where three regions are influenced by the role of London as a 'World City' and where a key policy area, the Thames Gateway, straddles regional boundaries. Elsewhere, there are also important functional (commuting and migration) links, for example, between parts of Derbyshire (in the East Midlands) and Sheffield (in Yorkshire and the Humber), and southern Milton Keynes. Certain sub-regions, such as High Peak and northern Cheshire, have strong linkages with the Greater Manchester Local Enterprise Partnership. Relevant information with regard to these spatial functional connections will help to inform local authorities to develop more robust growth strategies by taking account of issues such as strategic housing market areas and flood risk planning. This paper aims to map the key policies and programmes of the Coalition Government that have an explicit spatial expression to inform the discussion of spatial planning issues and priorities. The attention focuses on analysing three key policy documents recently published by the Coalition government which are significant in terms of shaping the spatial development of England: the National Infrastructure Plan (NIP); the Unlocking Growth in Cities (UGC) document; and the Draft National Planning Policy Framework (NPPF). This is then followed by a visual analysis of GIS mapping to illustrate the need to 'think spatially, act spatially' when devising government policies and programmes to galvanise capacities and to maximise opportunities, but also to minimise potential conflicting landuses to mitigate negative consequences to places and their residents. Three sets of key planning issues are particularly identified for this analysis: • The Growing Places Fund and Regional Growth Fund; • The High Speed Rail Link; and • Future Housing

Delivery. The paper concludes that making such spatial challenges and opportunities explicit can help to inform policy debate and encourage partnership working to better coordinate and manage the delivery of very complex spatial planning policies. On the contrary, not articulating the spatial relationships of planning issues can lead to disjointed and ad hoc management of infrastructure and service provision at the local level.

#### Gateway H

# (ATHENS IN CRISIS): MAPPING THE URBAN POLICIES AND THEIR UNEVEN IMPACTS IN PERIODS OF GROWTH AND RECESSION

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In the past three decades, the neoliberal shift has transformed the global economy as well as the urban process.Before the recent global recession and more precisely during the 2004 Olympics, Athens was portraved as an 'international metropolis', envisioning its role as the 'capital of South-Eastern Europe'. The state adopted a laisser-faire land policy, withdrawing government regulations and restrictions, shrinking the public domain and in the same time denying access to the commons. Athens became a cultural and residential industry, an optimal location for high-value businesses, a touristic (destination) occupied by the demands of a ravaged property market. Along with the radical restructuring of the urban process, an incredible transformation of lifestyle occurred, surrounding the contemporary urban experience with an aura of freedom of choice. Moreover, the neoliberal ethics and the police suppression harmed collective values like those of citizenship and democracy. After the 2008 global recession, the public debt crisis and the aggressive neoliberal E.U and IMF policies, Greek society experiences an unprecedented austerity. Poverty, unemployment, social destabilization and polarization structure the new geography of the metropolis today. The victims of such policy are not only the most vulnerable categories of citizens like immigrants and the financially weak, but also the majority of the population.Under this deterministic political and economic urban function all citizens, in such a model, are now de facto outcasts. This paper examines how contemporary urban policy, during the years of growth in the last decade but also and mainly during the recent recession, abolished the concept of the 'public interest', producing in the same time intra-urban inequalities. Under these sircumstances, the concept of the 'public interest' within the urban context of Athens asks for a substantive redefinition. In practical terms, in order to incorporate a planning policy is necessary to answer the question 'Who designed, and for whom.' Or else 'who has the right to the city'.

# Gateway K2

# THE TECHNOLOGICAL DIVERSIFICATION OF REGIONS: A STRUCTURAL APPROACH BASED ON RELATEDNESS, KNOWLEDGE TRANSFER AND PROXIMITY

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The transfer of knowledge between related activities plays a crucial role in regional economic resilience and cluster life cycles. In order to maintain competitive advantage and sustain economic growth, innovative regions increasingly need to diversify over time. Recently, the literature has provided strong empirical evidence on processes of product diversification at the country level (Hidalgo et al. 2007, Hausmann and Hidalgo 2010) but also at the regional level (Neffke et al. 2011, Boschma et al. 2012). The main outcome of these studies has been to explicitly demonstrate how the current productive structure and the existing set of capabilities shape the development of new economic activities. Therefore, this literature suggests that regions should diversify into related activities in order to achieve economic resilience (Boschma 2009). To the best of our knowledge, however, these studies consider events of diversification of regions as independent from each others. But in an increasingly globalized economy, events of brain drain, relocation or knowledge spillovers show that capabilities can move quickly between regions and countries, and empirical studies of regional diversification should consider these phenomenons. In this paper, we analyze processes of technological diversification of regions by using patent data and statistical models for network dynamics (Snijders 2010). All patent data utilized in the present study originally are from the United States Patent and Trademark Office (USPTO). Several publicly available patent datasets as well as supplement patent data related data were exploited in order to derive the various measures that are employed in the model described below. These include the 'Patent Network Dataverse' at the Institute for Quantitative Social Science at Harvard University (Lai et al., 2011), the NBER Patent and Citations Data (Hall et al., 2001), and the USPTO harmonization of names of organizations data file (USPTO, 2010). Our study covers the periods 1975-2010. More precisely, we use a structural and two-mode network approach, which allows us to analyze the diversification processes of regions as conditionally dependents from each others. Doing this, we are able to make three contributions to the literature on regional diversification. First, we model relatedness endogenously, i.e. as a result of an evolutionary process conditioned by joint processes of diversification of regions. Second, we analyze knowledge transfer between regions, arguing that regions can not only diversify by building on existing capabilities, but also by accessing knowledge from outside through collaborations or labor mobility. Third, we analyze whether proximity (Boschma 2005, Balland 2011) between regions sets a common path of diversification.

#### Gateway M

# STUDIO SOUTH WING: DESIGN IN THE CONTEXT OF FRAGMENTED REGIONAL GOVERNANCE

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In European regions, such as the Randstad Holland, emerging patterns of interaction and movement result in increasing spatial fragmentation. This development creates enormous challenges for the governance of territories. Classic forms of government, based upon clear-cut divisions in terms of administrative levels, policy sectors and the public and private domains become less relevant. One outcome is a rapid accumulation of consultation, coordination and partnership structures. Another outcome is the emergence of more flexible forms of governance, working around traditional arrangements and formal jurisdictions which do not coincide with actual spatial relationships and levels of functional integration. The result is a complex pattern over overlapping governance regions, characterized by fuzzy territorial boundaries and interrelationships between public and private actors. The formation of governance arrangements around planning issues that transgress multiple administrative boundaries has, in the Netherlands, frequently been assisted by a design approach or, as de Jonge (2009)1 calls it, a 'design dialog. This is a distinctive method of negotiation which makes use of spatial representations of the future of regions. The aim of such representations is not limited to the mere indication of physical change but to debate the distribution of responsibilities and resources for planning tasks among plan actors. Policy makers in the Netherlands currently recognise that design could be an effective and powerful tool for the integration of planning perspectives and strategies. There is however little understanding of the way how designs perform in the (social) construction of comprehensive planning frameworks on the level of regions. Their influence on spatial, organisational and conceptual change remains largely unclear. This is specifically due to the fact that in the context of regional planning plan actors compete with each other. Design proposals thus often gain hybrid and unintended purposes while being used and their performance is difficult to predict and trace. The purpose of this paper is to contribute to a better understanding of the influence of regional design in the context of fragmented regional governance. We seek to achieve this by means of a case study positioned in the southern part of the Randstad Holland. This particular case is centred around the transformation of the planning concept 'polycentrism'-. more precisely the idea that an urban region forms a 'network city'. from a rather abstract metaphor into a framework to direct operational decision-making. 'is the planning concept Network City South Wing useful?' was the initial question that the newly appointed director of the spatial planning department of the province of South Holland has asked himself in 2002. On his initiative the Atelier Zuidvleugel (Studio South Wing) was set up in 2005 to facilitate deliberation on this question by means of design. In this paper one of the design processes carried out by the studio is reviewed. Specific attention is given to its influence on the formation of regional governance structures. The performance of design is assessed through the identification of the use of types of design proposals in policy argumentations and an assessment of their influence on changes in governance arrangements. Drawing on a number of general dimensions of planning concepts, design proposals are distinguished based on their source of information and purpose: 1) design as a craft to integrate and explicate analytical knowledge, thus urging for reflection from a scientific ('evidence based') point of view and 2) design as a craft to allocate meaning, thus urging for deliberation from the point of view of politics and ethics. Policy argumentations are distinguished based on their purposes, ranging from technical verification to societal vindication. Institutional change is assessed through reviewing adjustments to policies, changes in the constellation of stakeholders and attention given to design proposals in indirectly related policies. This assessment is based on a review of policy documents and interviews with key players. Findings from the case study show that design proposals became directly effective in technical implementation processes when responding to a range of preconditions: 1) making use of explicit analytical

knowledge; 2) responding to a shared understanding of the urgency to meet planning objectives and 3) connections made with established policy routines. The indirect influence of the design process .for instance on argumentations concerned about the scope of existing, related policies . is less easy to detect. It will however be argued that this influence has turned out to be robust. The paper begins by describing the theoretical framework used in the case study. Next the governance situation in the South Wing of the Randstad and the establishment of the design studio within this context is explained. The main part of the paper analysis one of the design processes led by the Studio South Wing in depth. In the final section insights into the performance of the applied design process will be summarized and discussed in the broader context of governance situations as they occur in European regions.

#### Gateway B

# LOCAL CLIMATE POLICY AND THE REGIONAL METROPOLIS: CASES FROM THE UNITED STATES

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Over one thousand municipalities in the United States have signed on to the US Mayors Climate Protection Agreement. Among other things, signatories to the agreement pledge to take actions to reduce local greenhouse gas emissions by seven percent from their 1990 levels by 2012. Although many signatories have developed emissions inventories and climate action plans, a vast majority have yet to systematically address greenhouse gas mitigation policy as demanded by the agreement. Many of these signatories are suburbs situated in metropolitan regions where the reality of intra-metropolitan integration can impact policy decisions and capacity. This paper seeks to explore the obstacles facing comprehensive climate implementation in smaller signatory municipalities by analyzing policy stagnation from three theoretical perspectives. Because no large-N studies exist analyzing the intricacies of Climate Protection Agreement implementation and due to the complex nature of implementation in a variety of contexts, this study deploys a case-study approach with data gleaned from interviews, and primary and secondary sources. First, I look at implementation obstacles from the standpoint of the governance challenges inherent in the complexity of the policy problem of emissions mitigation. Greenhouse gas emissions come from a variety of sources and their accounting is not a simple matter. The US Mayors Climate Protection Agreement—as a purely voluntary aspiration—commits signatories to achieve community-wide emissions reductions. Thus, municipal action alone in most locales will be insufficient to reach the agreement's targets. Furthermore, suburban municipalities exist within larger regions. Patterns of social interaction are regional as a matter of course. Thus, the extent to which a single municipality's actions can fundamentally impact greenhouse gas emissions in regional contexts is challenging. The ways in which local climate governance proceeds through coordinated (or un-coordinated) interaction with regional partners and civil society will be discussed. Secondly, I discuss the challenges of municipal institutional capacity in developing comprehensive emissions mitigation policy. As indicated above, the Climate Protection Agreement asks signatories to reduce their greenhouse gas emissions by seven percent in their municipalities. As such, the agreement suggests that cities undertake an emissions inventory and develop a set of mitigation strategies. This first crucial step of conducting an emissions inventory is complicated and requires technical expertise. I am particularly interested in this section to discuss the difficulties facing suburbs in conducting emissions inventories. The bulk of the signatories of the agreement are suburbs, however suburbs often have smaller and less-specialized city staffs. In much of the urban studies literature, the particularities of suburban policy development and implementation are given little investigation. The lens of local climate policy is useful to explore suburban policy development due to the technical nature of emissions accounting. In this section I explore the role of suburban institutional capacity as it relates to achieving (or not achieving) emissions reductions goals. Finally, I look at the role that local political conflict plays in developing climate policy in signatory suburbs. In the United States, large cities like Chicago and New York have well-developed climate policies and carbon mitigation strategies. In some sense the density of these older industrial cities makes emissions reduction easier. Density generally results in lower per capita emissions due to transportation and building efficiencies. Suburbs, however, are marked by their low density, sprawling nature. Emissions reduction strategies in these settings often require policies that can fundamentally impact the character and identity of suburbs. At the same time, a greater awareness of environmental problems has prompted many suburbs to sign the US Mayors Climate Protection Agreement. As such, political conflict ensues around the new policies required to minimize carbon emissions and the fundamental nature of suburbia in North America. I finish the paper with an assessment of the future of greenhouse gas emissions policies in suburbia by focusing on the challenges and opportunities evident brought about by governance regimes, institutional capacity, and political conflict.

#### Gateway J1

# BACK TO THE FUTURE OF HIGH TECHNOLOGY FANTASIES? REFRAMING THE ROLE OF KNOWLEDGE PARKS AND SCIENCE CITIES IN INNOVATION BASED ECONOMIC DEVELOPMENT.

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In the question of what makes territories attractive to investment and supportive of endogenous growth, the answer has shifted from factors of production towards dynamic, learning-driven supply chains, clusters of production, to innovative ecologies. The OECD (2011) have identified the ingredients that contribute to the recipe for a successful 'science city', and highlight the degree of different national contexts within which science cities are currently being developed. But placing urban science in this lineage of neo-endogenous development provides a stark reminder of the limits of the policy applications of these models. We have already experienced two waves of 'policy bubble' in these third wave neo-endogenous models, the 1980s enthusiasm for science parks and the 1990 enthusiasm for clusters sparked by Porter's (1990). Of course the lessons of these episodes is not that these original ideas or analyses were in some way flawed. Rather there was a valid critique in that somehow these notions became caught between a consensus of the 'correctness' of the idea and policy momentum, preventing understanding particular situations and responding to problems. This paper seeks to understand urban science in this context, as the latest wave of potentially 'irrational exuberance' in territorial innovation models. The paper offers a brief overview of a sample of science city projects, exploring the motivations of participants in those projects and their apparent success. The paper then turns to focus on a particular urban science project, the Netherlands-based Kennispark (Knowledge Park) project where investments around a successful university entrepreneurship project have sought to address a long-standing set of regional development problematics. This provides the basis for an interrogation of the limits of urban science and helps to contribute to ongoing debates around the relationship of these new symbolic spaces to the economic development trajectories of their host territories.

### Gateway I SUSTAINABLE URBAN NEIGHBOURHOODS: INTEGRATED LEARNING FOR SUSTAINABLE DEVELOPMENT

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# Regional urban networks have the potential to support mutual learning and joint innovation needed for sustainable urban development. This also counts for urban networks crossing country borders. The Interreg SUN (Sustainable Urban Neighbourhoods) project aims to stimulate the sustainable development of urban neighbourhoods in the cross-border Euregio Meuse-Rhine. The objective of the SUN project was to initiate integrated dynamic cross-disciplinary and cross-border engagement for the improvement of the overall quality of life of existing, deprived post-industrial neighbourhoods in the Euregio. More specifically, the objective of the SUN project includes four central 'action' themes: 1. the development of the local economy, through improving the neighbourhood image and through attraction of new investors and the promotion of local entrepreneurship; 2. the greening of the neighbourhoods through participative greening of the public spaces, through other participative projects, through awareness raising about the importance of green in urban areas; 3. the energy renovation of private housing buildings, which includes sub-objectives like raising awareness about climate, and about energy use and saving energy. 4. the promotion of social cohesion, through small-scale actions aimed at addressing social issues that are specific to the neighbourhood or through inter-neighbourhood exchanges. Participating neigbourhoods in the SUN project are located in the cities of Liege, Verviers, Heerlen, Genk, Eupen Aachen and Eschweiler. In this paper we will focus on the learning experiences of the neighbourhood MSP in Heerlen. The SUN project provides concerted public and private action focussing on community engagement and supporting bottom-up collective innovation. In this process, 'learning' implies the exchange and co-creation of knowledge, skills and innovative practices across different types of boundaries. These boundaries vary from different academic disciplines, different types of expert and practical knowledge, policymakers from different countries and inhabitants of the different Euregional neighbourhoods. Knowledge crossing those boundaries may be of different type and may be facilitated by different types of learning activities

and tools. Until now, systematic analyses of learning processes in such complex networks are lacking. It is therefore taken as a case study to analyse the learning processes at work in a cross-border and cross-disciplinary learning network for sustainable development. The academic evaluation process of the project gives more systematic insight in the learning processes and the connected challenges and advantages of such a cross border learning network for sustainable development. Qualitative survey data give answers to the following broad questions: 1. How were the initial objectives of the SUN project met in the assessed neighbourhoods? 2. How will the devices that were developed under the SUN project, as well as the initiated social dynamics be sustained in the longer term? 3. What were the learning effects of the SUN project in the assessed neighbourhood? To better support learning and innovation in such a complex network, this paper provides an overview of knowledge exchange in the SUN project, highlighting the various knowledge boundaries, types of knowledge and practices co-created and exchanged, and learning activities in place. We reflect on SUN learning experiences so far, identifying success factors and bottlenecks that emerged. Finally we discuss how learning processes arising from such cooperation projects can be supported in a longer-term perspective.

#### Gateway G1

# SMART SPECIALIZATION STRATEGIES: THE ROLE OF PUBLIC PRIVATE PARTNERSHIP IN PLANNING SMARTER CITIES

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In the mid-90s, in the US, the Smart Growth movement emerged, promoting a blended approach to urban sprawl management through a broad range of policies and land use strategies being implemented at different institutional levels. The Smart Growth movement represents an important contribution from North American planning theory on the issue of curbing urban sprawl (Daniels, 2001; Soule, 2006). Smart Growth has been defined in many different ways (Gillham, 2002; Ye, Mandpe and Meyer, 2005; Smart Growth Network, n.d.); nevertheless, general consensus exists in considering it as part of the broader sustainable planning movement (Wheeler, 2000, Krueger and Gibbs, 2008, Krueger et al., 2004). As Gillham (2002; p.155) notes, "many of the growth-management planning techniques developed in the past three decades have become instruments in the toolbox of the today's smart growth movement". On the other hand, Local Economic Development issues are being pushing into the international policy agenda to encourage the change towards a more flexible management of local resources. According with European Commission (2010) about "Regional Policy contributes to smart growth in Europe 2020", the development of smart specialisation strategies is crucial "to maximize the impact of Regional Policy in combination with other Union policies". Smart specialization strategies become a key factor to stimulate private investment. And "They should be integrated into regional development strategies in order to ensure an effective partnership between civil society, businesses and public authorities at regional, national and European levels". By following the above conceptual framework, we focus on the role that Public Private Partnership (PPP) at local/urban level can play in the smart specialization strategies. More in particular, we argue that PPP can be as a privileged means of governance, useful to establish different kind of actions: BID, Social Enterprise, Community development corporation, business incubators, urban-rural issues and others actions, to tackle smart specialization strategies by highlighting the concept of Cluster as driver to link local initiative with regional growth. The paper introduces some case studies analyzed within a wider research project financed within 7FP Marie Curie IRSES program 2010 and oriented to the implementation of an innovative tools: CLUDs, Commercial Local Urban Districts, aimed at emphasizing the strategic role of small retails handcraft and typical food- in reinforcing the sense of community, reducing transportation costs and contributing to the creation of attractive urban environment, thus producing increase of private investments. The case study analysis refers to the first strategic objective of the CLUDs project concerning: Setting up an analytical process to understand how Public Private Partnership can be both marketable and social sustainable by highlight integrated approach related to Credit access, local resources promotion, job creation, social activation. The CLUDs project is a Joint Exchange Programme among four European universities and two US Universities. The paper intends to show the results of 4 selected case studies in Boston: 1) Fort Point District, inside Boston Innovation District; 2) Concord, Massachusetts inside Transit Oriented Development (TOD) Suburban Case Study; 3) Boston Marine Industrial Park inside Boston Innovation District; 4) Codman Square in Boston. The aim is to analyze the PPP performance within the selected urban/suburb areas, which are subjected to redevelopment projects managed by a partnership between the Boston Redevelopment Authority and private partners. The objective is to identify what are key factors involved in urban regeneration led by local economics that foster successful Public-Private Partnership initiatives, following the general principles of smart specialization strategies (EC, 2010). The methodological approach is based on evaluation multicriteria technique belongs to the huge family of Multivariate statistics. In particular, a set of variables supposed to affect PPP performances are collected through two basic instruments, specifically built, named Survey Form PPP Analysis and Interview form PPP governance. The evaluation is based on the different sets of variables included in these two instruments. The Survey Form contents 5 sets of variables: Overall outline of the initiative Budget size, Income, Vacancy rate, Strategic Priorities, Partnership characteristics - Socioeconomic structure Demographic data, Labour Market, Production - Fiscal Analysis Summary Items of expenditures, Source of revenue -Marketing and promotion Business attraction, retention assistance programs, Services and improvements -Spatial Data Real Estate, Commerce and advanced services sectors, Accessibility, Supply chain: the supply of local products, Environmental data, Social data. The interview form contents 3 sets of variables: Vision and Strategy, Management and Organization, Stakeholders and Governance. The general criterion of the PPP performances' analysis and evaluation is to confer spatial connotation to economic forces, which includes physical transformation, dealing with both socio-economic and spatial information. The latter are connected with more detailed information about the partnership, in terms of interests involved, risk sharing and accountability.

#### Gateway K

# TOWARDS AN EVIDENCE BASED HUMAN CAPITAL AGENDA FOR A REGIONAL INNOVATION STRATEGY

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The issue of human capital is more and more incorporated in national and regional innovation strategies. The Dutch government added for example a Human Capital chapter to each of the nine priority sector programmes. Particular in the more peripheral regions a future lack of human capital presents a threat to the innovation capacity in these regions. Human capital shortages are related to increasing competition of core regions for the highly educated and demographic change that may lead to shrinkage of the working population in these regions. Many regions have adopted a policy on attracting and retaining talented people, but actions have been rather fragmented, and lack clear success indicators. Most regional stakeholders agree that human resources are essential for a knowledge-based economy, but data remain scarce on the scope of the future problems. This is especially the case on the local and regional level. A successful regional innovation strategy creates in itself a demand for human capital. But a future shortage would be a barrier for innovation. The skills and competencies required for regional innovation are broad, difficult to predict, and may be changing since innovation outputs and processes are characterised by diversity and heterogeneity. What kind of insights and predictions would we need to develop a long term regional human capital agenda complementary to a regional innovation strategy? This paper is based on the experiences in a pioneering region in the Netherlands, Twente. The region has been appointed as pilot region to develop a human capital agenda in the priority sector 'High tech systems and materials'. Although peripheral in the Netherlands compared to the core economic regions in the West, the former textile region is regarded as a relatively successful innovation region. It is a also a region where the regional stakeholders (business, knowledge institutions, government) recognised the need and challenges of a complementary human capital strategy and investment programme early on. The paper addresses the experiences with the problem of underpinning the regional innovation agenda with data, indicators and analyses from a human capital agenda perspective. The necessity of human capital is addressed from a simple model of regional human capital stock.

#### Gateway D

# LIVING NEXT TO A FLAGSHIP DEVELOPMENT A LITERATURE REVIEW ON THE SPATIAL AND SOCIO-ECONOMIC BENEFITS THAT FLAGSHIP DEVELOPMENTS CAN GENERATE FOR ADJACENT RESIDENTIAL NEIGHBOURHOODS

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Over the last decades flagship regeneration emerged as an answer to neoliberalism and de-industrialisation in developed countries. Flagship development can be defined as 'significant, high-profile and prestigious land and property developments which play an influential and catalytic role in urban regeneration' (Bianchini et al., 1992, p.252). This paper consists of a literature review, answering the following question: what are the possible benefits that flagship development can generate for the local communities living in adjacent neighbourhoods and how can these benefits be exploited? Cities in which industry has taken a big part of, and therefore suffered the most from de-industrialisation, were the first cities in which flagship developments appeared, from the 1970s on. These cities suffered from high unemployment, poor image and declining public revenues. (Doucet, 2009, p.102). Therefore the first flagship developers aimed at attracting tourists and investment, revitalising an attractive image for the city (Doucet, 2009; Smyth, 1994) and encourage private investment (Bianchini et al., 1992; Healey et al., 1992; Loftman and Nevin, 1995, p.304). All of these aims focused on outsiders or on the city as a whole. The local community could not benefit from the new developments that took place in areas adjacent to their own neighbourhood. The first flagship developments -e.g. in Baltimore, Newcastle and Bilbaoseemed very successful: many cities copied the developments. Flagship projects are still being built nowadays. When taking a look at the aims that private developers put forward today, it is striking to notice that still none of these focus on beneficial possibilities for the local community living in adjacent neighbourhoods. The only cases in which local benefits do play part, is where the development is a collaboration of private and public developers. Several municipalities do take the local community into account. (Doucet, 2009, p.102) Flagship development has many positive but also many negative effects. The positive effects, such as the developer's aims mentioned above, mainly concern outsiders. Besides this, proponents see a positive effect for adjacent neighbourhoods as flagships can function as catalysts for urban regeneration in adjacent areas (Bianchini et al., 1992, p.249; Grodach, 2010, p.353; Loftman and Nevin, 1995, p.299). Regeneration is however a tenuous notion, and is not always positive for residents, for example in the case of gentrification. The negative effects of the flagship developments mainly affect the local community. The most important disadvantage is fragmentation. Many flagship areas function as an island inside the city. (Doucet, 2009, p.105; Loftman and Nevin, 1995, p.305; Wilkinson, 1992, p.206). This has a negative influence on for instance social cohesion and accessibility of e.g. public spaces and facilities. In literature, several opportunities that flagships can bring are mentioned. For example, flagships can provide facilities and amenities for everyone. It can provide transport possibilities and the possibility to make a housing career in the neighbourhood. (Loftman and Nevin, 1995, p.303; Doucet et al., 2010, p.126). This means the local community can benefit from the contemporary developments. However, these beneficial possibilities remain theoretical and have hardly been developed in practice. Looking back at the research question, it can be answered by stating that there are indeed possibilities for the local community to benefit from flagship development, as mentioned above. But how can the local community actually exploit the beneficial opportunities? To make this possible, three recommendations can be made that should be taken into account in future flagship development. First of all, flagship developers should reposition their aims to be more economically and socially inclusive (Doucet, 2009, p.106). Only then, flagships can affect adjacent neighbourhoods and their residents in a positive way. Second, the design for the projects should explicitly contain benefits for the local community to use, such as facilities and public places. Third, the effects that prevent people from exploiting the benefits -such as fragmentation- need to be taken away or diminished in order to make the flagship beneficial for residents of adjacent neighbourhoods. This study can be used as a theoretical starting point in urban design or planning. Research is needed to know what spatial and socio-economic prerequisites are at the base of successful beneficial possibilities that can be used by the local community of adjoining neighbourhoods and that are located in flagship areas. The paper puts forward a list of beneficial goals; now the methods and tools to reach them need to be explored.

# THE EMERGENCE OF NEW INDUSTRIES AT THE REGIONAL LEVEL IN SPAIN A PROXIMITY APPROACH BASED ON PRODUCT-RELATEDNESS

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How do regions diversify over time? Inspired by recent studies, we argue that regions diversify into industries that make use of capabilities in which regions are specialized. As the spread of capabilities occurs through mechanisms that have a strong regional bias, we expect that capabilities available at the regional level play a larger role than capabilities available at the country level for the development of new industries. To test this, we analyze the emergence of new industries in 50 Spanish regions at the NUTS 3 level in the period 1988-2008. We calculate the capability-distance between new export products and existing export products in Spanish regions, and provide econometric evidence that regions tend to diversify into new industries that use similar capabilities as existing industries in these regions. We show that proximity to the regional industrial structure plays a much larger role in the emergence of new industries in regions than proximity to the national industrial structure. This suggests that capabilities at the regional level enable the development of new industries.

#### Gateway M1 INTERPRETING RURALITY: MULTIDISCIPLINARY APPROACHES

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Interpreting Rurality: Multidisciplinary Approaches Pete Somerville, Gary Bosworth & Rebecca Herron University of Lincoln For the European Regional Studies Conference, Delft, May 2012 Abstract This paper is an early draft of a set of concluding chapters for a forthcoming publication entitled "Interpreting Rurality: Multidisciplinary Approaches". The aim of the volume is to present a diverse range of chapters that focus on questions of rurality from a range of methodological and disciplinary perspectives based on the hypothesis that our approaches to understanding and researching the rural and bases for developing policies aimed at the rural are intrinsically shaped by a range of perceptions and preconceptions. Some will be historical and set within our cultural heritage and sub-conscience while others will be more contemporary, contested and to the fore of our consciences when using the term "rural". Four key strands of analysis are explored within this paper. In the first section we assess historical and cultural perspectives, secondly we examine the role of agriculture, animals and landscape and in the third section we address both social and economic questions. The contributing chapters apply a range of methodological approaches but in drawing them together, we apply an Actor Network Theory approach to consider how the human and non-human actants and processes combine to create different understandings of rurality. The case studies are largely focused on the UK but international examples are also used to demonstrate the significance of this context and to enable with comparisons to be drawn. We not only show that "rural" has different meanings to different people but that research and policy in this field will inevitably continue to be shaped by these meanings which may be drawn from incredibly diverse sources. Recognition of this can help researchers and policy-makers alike to contemplate which version or versions of "rural" are most relevant at any given time.

#### Gateway F1

# PLANNING FORWARD BY LOOKING BACK: COHESION POLICY IN SCOTLAND

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The paper will outline initial issues, research questions and methodological plans for recently commenced doctoral research on Cohesion policy implementation models in Scotland. Existing academic and policy literatures identify a wide range of management and implementation approaches for Structural Funds programmes and projects. An important variable is the type of intervention being supported: different delivery models can be appropriate for different priorities, themes, sectors or types of intervention. In the context of new

Cohesion policy regulations, domestic political and institutional flux and the impact of the global financial crisis, the priorities and thematic focus of Cohesion policy, and the type of interventions being funded are being reviewed. Member States must assess management and implementation arrangements accordingly. Based on policy implementation and policy change literature this research addresses these issues in the Scottish context: are delivery systems shifting to adapt to the changing context? What are the optimal delivery mechanisms for different thematic priorities or types of intervention and to what extent are these evident in the Scottish case?

#### Gateway WHO

# COOPERATION IN BORDER REGIONS TO REDUCE HEALTH INEQUALITIES. EXAMPLES FROM THE EUREGIO MAAS-RHEIN

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The Euregio Maas-Rhein has a long tradition in cooperation in Public Health. For the last years the question of how a cooperation in a cross border setting can help to reduce health inequalities between the involved countries got more importance. Therefore this topic was given more attention in project work. The activities of the Euregio can be clustered around five concrete topics:

1. Health reporting in border regions. Are there differences in the health status between the involved regions? How can they be described and explained? Several European projects (ISARE I to III and I2SARE) developed an indicator set and made indicators available to describe health on the regional level, especially for border regions. Now regions have the possibility to have access on regional health data that are produces routinely and can be used as a health profile in a cross border setting.

2. Health behaviour Do citizens in neighbouring regions have a different health behaviour that may explain the differences in health status? Several activities like the youth survey in Germany and the Netherland or the European Health Literacy Survey (HLS-EU) highlighted this issues.

3. Cooperation in health care. Good health care in a cross border setting can help to decrease inequalities. An example for this is the cooperation between the University Clinic in Aachen, Germany, and the Maastricht Academic Hospital in the Netherlands. Questions of Health Technology Assessment (HTA) in a cross border setting and legal issues were analysed by the European funded project EUREGIO II to improve cooperation and quality.

4. Patient safety as an indicator of inequality. The European project and cooperation on the control of hospital infections (MRSA-NET) is a classic example of an effective cross-border cooperation that can help to reduce inequalities by mutual learning. In the cross border setting of the Euregio Maas-Rhein hospital joined a common learning exercise which is now exported to other Euregios.

5. Analysing the health status in deindustrialised regions in Europe. Grouping regions along their common history e.g. of being former industrial centres makes it possible to analyse their progress in health status. By this no border regions are compared but regions who share the same history and challenges. The results of this kind of comparisons make it possible to identify best practice examples in regional development regarding health. All the above examples show how it is possible to work on the reduction of health inequalities in a cross border setting when the political will is there and a long-term commitment of the actors can be secured. Europe always learned from the pragmatism of the cross border settings, e.g. the recent Patient Directive of the European Commission is based on the experiences in bordering regions.

Gateway L2

# DEVELOPING THE EXPERIENCE ECONOMY IN NON-METROPOLITAN REGIONS – CROSS-CLUSTER NETWORKS IN VÄRMLAND

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A common challenge for many companies in the experience economy is that firms are small, struggle with low profits and, particularly in non-metropolitan regions, often are scattered over a large area. These challenges make it different for the firms to find time for accessing new markets and to innovate and engage in product development. An important aspect of product development is the interaction between producer and consumer

that drives innovation through new trends expressed through consumer demands. One way of supporting firms in the experience economy is through different types of collaborative bodies such as destination management organisations or cluster organisations. These organisations typically include different actors such as public agencies, local authorities and chambers of commerce in addition to the companies. Public agencies working with local and regional development issues tend to be actively involved in the setting up and managing these organisations both because they can play the role as broker and 'neutral' party in relation to many different competing interests and also because of the importance of a strong experience economy with regards to regional growth. This paper presents a new project that focuses on cross-cluster networking in the Värmland region in Sweden. This non-metropolitan region has a number of strong and established clusters in several export industries supported by cluster organisations such as the IT cluster 'Compare', the cluster of pulp and paper technology 'Paper Province' and 'Steel & Engineering'. In February 2011 a cluster organisation for the experience economy 'Visit Värmland' was established based on earlier collaboration. The project aims at studying and supporting cross-cluster networks between Visit Värmland and other clusters. Two important aspects of the study is firstly to focus on opportunities for firms in the experience economy with regards to product development and accessing new markets through collaborations with the established clusters and secondly to explore knowledge development and learning for both the new and the established clusters through cross-cluster networking. The project involves actors from the clusters and is thereby partly co-produced research. The first aspect of the study is based on the practice of the export firms in the established clusters to involve different types of Värmland experiences in their customer relations. A large number of small and large events are organised every year involving a variety of firms within the experience economy. The scale and scope of these activities are not known. In a first phase of the project a mapping exercise is taking place with regards to these activities and the scope for a development of the experience economy through a more organised cross-cluster networking between 'Visit Värmland' and the established clusters. Can firms in the experience economy tap into this market and through customer-producer interactions with overseas visitors access opportunities to innovate and engage in product development? The second aspect of the study is planned to involve deeper research into the knowledge dynamics of cross-cluster networks e.g. in terms of organisational learning. In what ways can the new cluster 'Visit Värmland' learn from interactions with the established clusters and their ways of working with regards to activities such as business development, innovation, marketing and competence development? In what ways can established clusters learn from a new cluster organisation for example through being exposed to different ways of working and thereby perhaps avoiding getting locked in in established work practices? Cross-cluster networks may provide opportunities for innovative thinking also in terms of organisation development since this type of interaction challenges what is taken for granted in organisational practices. In a third phase of the project we aim to expand the study to comparative research involving cross-cluster working with the experience economy in other regions and countries.

#### Gateway H ECONOMIC INTEGRATION, GROWTH CYCLES AND THE BEHAVIOUR OF REGIONAL DISPARITIES

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In this paper we seek to examine what has been happening to regional growth rates across the European Union and assess whether they appear to have become more susceptible to regional specific economic shocks in the period since monetary union. A feature of our analysis is to compare the experience in the EU with that of the USA and assess whether there is evidence that the EU is becoming more like the USA. Regional disparities in both the EU and USA appear to vary with the economic cycle but the growth dynamics vary by type of region and we explore the possible reasons for this and implications for policy.

#### Gateway K2 TOWARDS A GEOGRAPHICAL POLITICAL ECONOMY OF REGIONAL RESILIENCE

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The concept of resilience has become increasingly prominent in economic geography and regional studies as regional economies and societies struggle to respond and adapt to shocks and change. The concept is developing particular within evolutionary economic geography (EEG) where it resonates strongly with non-equilibrium and path-dependent notions of adaptive change. EEG perspectives on resilience are still in their infancy however, and subject to critique not least because of their focus upon the firm and relative neglect of broader actor-networks and agency. This paper seeks to build upon nascent EEH theorising about resilience by adopting a broader geographical political economy perspective on the concept. In so doing it focuses on developing three key and under-theorised areas of thinking around regional resilience. The first of these is the notion of agency and the need for a broader understanding of the role of non-firm actors, notably consumers and social enterprises, in delivering regional resilience. The second is the role of policy design and implementation in shaping both what regions need to be resilient to and the potential policy and institutional innovations required in response. And third, the importance of understanding the new, often highly distributed network of interconnections that exist between these actors.

#### Gateway H

# THE WELFARE EFFECT OF ECONOMIC DIVERSITY IN RURAL REGIONS: AN ANALYSIS OF DUTCH MUNICIPALITIES

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It is usually assumed that the presence of multiple economic sectors in a given region reduces employment fluctuations in that region and therefore increases economic stability. This assumption has been tested frequently at the urban level, taking into account agglomeration forces that cause either specialization or diversity in economic activities. The diversity of economic activities and the effect on economic development in a rural setting, however, has not been a research focus in this context. Nonetheless, in the discussion on the development of rural areas in times of population decline, this question is very relevant. This chapter investigates to what extent economic diversity is associated with income levels in rural municipalities in the Netherlands. The findings show in an explorative cross-sectional setting that a diverse rural economy is associated with higher levels of income.

#### Gateway G1

# PLANNING SUSTAINABLE URBAN FUTURES? USING SCENARIO ANALYSIS TO ASSESS LAND-USE OPTIONS FOR EASTSIDE, BIRMINGHAM, UK

### Julie Brown, University of Birmingham, UK

Scenario analysis is an analytical tool widely utilised by planners and policymakers to help explore and visualise the future and help identify strategies that prove resilient to changing circumstances. Scenario analysis has not, however, been used to explore the urban environment in much depth, yet it has the potential to provide valuable insights regarding the future robustness of measures which are undertaken today in the name of sustainable urban (re)development. Using the major regeneration area of Eastside in Birmingham, UK as a case study, the aims of this paper are twofold: First, to critically assess the application of the scenario analysis approach in the context of a complex, inner-city, urban regeneration area. Second, to utilise scenario analysis to evaluate the robustness of land-use options proposed as sustainability measures for the case study site. This analysis will, in turn, help urban planners think through the implications of current land-use planning strategies and whether they will be robust enough to continue to meet their sustainability objectives now and in the future.

### Leslie Budd, Open University, UK

The European Union's Europe2020: a strategy for smart, sustainable growth contains seven flagship initiatives, including A Digital Agenda for Europe. This initiative is the successor to i2010 - A European Information Society for growth and employment the Information and Communication Technologies (ICT). There has been a subtle shift of emphasis between the two digital strategies from competitiveness towards cohesion as the authors of Europe2020 seek greater complementarity with the 5th Cohesion Report. The latter has included a commitment to territorial cohesion for the first time; the achievement of which may occur in both real and The recent and ongoing financial and fiscal crises have shown the EU's socio-economic virtual spaces. governance in sharp relief. Although A Digital Agenda for Europe predates the start of the crisis, the commitment to developing eGovernment is an important part of this form of governance. On the other hand, the role of eGovernance in developing and sustaining the competitiveness is reinforced in the European Commission's Europe's Digital Competitiveness Report, published in 2010. In the last couple of decades there have been a number of debates about re-structuring the public domain and public sector reform. These include "Reinventing government" New Public Management (NPM) and "New Public Governance" (NPG) (Osborne, 2006). "Network Governance and "Digital-Era Governance" (DEG). These discourses are centred on notions of post-bureaucracy, and in particular the role of on-line or digitally enabled public services. The latter two discourses focus on modernising public services by developing eGovernment practices. In particular, how eGovernance processes and eGovernment practices can contribute to combating social exclusion through combining multi-channel Information and Communications technologies (ICT) with multi-channel means of dissemination and uptake of on-line public services. These are distinguished as: Multi-channel ICT networks: These are the technical means by which eGovernment services are enabled and include, inter alia, internet and web-based ICT; mobile telephony; call centres etc. Multi-Channel eService and User Networks: These types of networks are the means by which citizens and communities are able to access public services that they may have been excluded from because of different forms of social exclusion. The different channels may be accessed directly or through intermediary groups. These are the main elements of multi-channel network governance whose conceptual building blocks rest on Habermas's Theory of Communicative Action combined with Bourdieu's different forms of capital in regard to his concept of habitus. This combination is used to identify the degree of social inclusion enabled in particular regions and sub-regions over successive periods of time. By drawing Bourdieu's seven forms of capital (and social capital in particular) changes in a portfolio of community capitals. This portfolio is based on the capacities and capabilities of each habitus which is investigated in order to evaluate the prospects for multi-channel network governance, using a particular case. The idea of multichannel governance is compared and contrasted with the revival of interest in multi-level governance (MLG), particularly within the European Union (EU). The case in which these concepts and discourses are interrogated is the EGOV4U E-Government for You project, funded by the European Commission in order to produce best practice in developing on-line public services to combat social exclusion. The locales are Dublin, Malta, Milton Keynes, Reykjavik and Rijeka with the Open University undertaking the evaluation of the impact of this intervention

Each locale has identified a number of on-line public services projects to be evaluated in respect of creating public value and increasing social inclusion. In measuring the changes in these objectives, the interaction of transactional and transformational economies is analysed. Transactional economies are associated with aligning internal operational decisions of multi-channel eService providers with service transactions. These economies relate to current or backward-looking perspectives of the organisations they occur in. They are set in relation to the costs of administering or running a provider organisation and are thus closely related to transactions costs. Transformational economies are associated with strategic decisions over the outputs of the multi-channel eService and responding to and influencing the (democratic) governance and regulatory environment. They tend to be associated with forward-looking perspectives and are set in relation to external goals and transforming the performance and future of the community and society. Investigating these combinations of elements and drawing on the EGOV4U the paper examines the contention that the region is the locus of multi-channel network governance rather than MLG because of the latter's hierarchical logic.

# Gateway I DILEMMAS OF REGIONAL IDENTITY IN HUNGARY

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The topic of spatial and regional identity is a crucial and inevitable question today in the wake of European regionalization focusing on a number of social, cultural and emotional points that have been surveyed in researches. It has been concluded that people identify strongly with spatial categories that are relevant to the feelings of 'homeliness', human relationship and economic prosperity. The category of 'nation and locality is dominating in Hungary, while in other countries of the European Union, like Austria, Germany or Spain regional categories are just as relevant. (The research uses the term spatial as an overall category including the local, the regional and the national levels of identity.) The concept of spatial identity derives on the one hand from the historical-ideological term of national, geographic and ethnic based category of identity, on the other hand from the individual endeavour analysed by psychology. To provide an adequate answer one has to reconsider the analyses concerning regional identity. It can be stated that spatial identity is based on the one hand on emotional (spontaneous), on the other hand on cognitive (existential) elements as building bricks, influenced greatly by the development of the given area. Based on spatial identity it is locality bearing the highest degree of spatial identification beside the notion of nation in Hungary. Due to historical reasons the concept of the region had been mixed with several geographical and political categories, such as counties, geographical regions, historically differentiated regions and other administrative categories but were eliminated later. There were different regional categories present during the Austro-Hungarian Monarchy than in the first half of the XX. century, and these were overwritten in the state socialist political regime and again after the political transformation of 1989. But even in the last twenty years there were at least two main political regionalization processes, which meant that an innate, basic regional structure was being absent in Hungary. Regions at present refer to three sub-national regional categories: the county-regional level, the geographical regional aspect (e.g. Transdanubia or the Great Plain) and the political and administrative regions (NUTS II., based on the union of three or four counties). The development of a region enhances the feeling of success leading to the stability of spatial identity and makes it a sustainable category. If for instance economic prosperity such as employment rates and infrastructural conditions are bettering then affection towards settlement and country increases, giving way to growing regional identity. The question is how inclusive a category can it become? Theoretically identity is an inclusive term, and as such gives way to processes that create inclusive results. Such is the incorporation of different forms of identities (accepting cosmopolitism, globalisation just as patriotism or localisation at the same time) which in turn have a strong effect on economy, as social cohesion and tolerance pave the way for further social development leading to regional development as well. Within the scope of regional identity it is endogenous creativity (which is equivalent to smart identity factor) that can have an essentially positive effect on regional development. This refers mainly to those strategies that apply to specific economic sectors, such as tourism, industry (automobile industry), other forms of service sector that attract investment or people (talented employees, tourists etc) into certain regions and can enhance the presence of innovation and knowledge. This process involves the reinforcement of trust and the spread of participation, the growth of civil society which in turn has a positive feedback on the degree of spatial, regional identity. It proves to be a positive vicious circle in which one - having a strong local identity for instance - will join local programmes in order to fulfil one needs aroused by strong affection, which in turn will lead to the reintensification of regional identity. The dilemma however is – in the case of Hungary – how to promote or base regional identity provided that in Hungary it is rather a fuzzy concept socially and politically as well, while without it, social and economic development might be hindered? The paper tries to provide an insight into the dilemma of regional identity in Hungary as a phenomenon which has substantial potential in society and without which one can base sustainability for the future in a globalizing world.

#### Gateway F1

# CHANGING GOVERNANCE IN RURAL DEVELOPMENT: BOTTOM-UP POLICIES AND COMMUNITY PARTICIPATION IN NORWAY AND POLAND

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The paper examines two rural development policy programs aiming at enhancing rural community participation in processes of local development: Bygdeutviklingsprogrammet (BU-Program) implemented in Sogn og Fjordane region in Norway and LEADER axis of Rural Development Program for Poland. The empirical investigation is based on documentary evidence of both programs and surveys conducted on groups and individuals involved in formulation and implementation of local development strategies under the two programs. The paper analyses community responses to the policy tools introduced by the programs and local capacity for strategy formulation and implementation. From this evidence, the paper discusses challenges concerning regional development policies in the context of social capital and multi-level governance theories.

#### Gateway B REGIONAL SPATIAL STRUCTURE AND ENVIRONMENTAL SUSTAINABILITY IN ITALIAN URBAN SYSTEMS

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This work aims to investigate whether the spatial structure may have a role for the environmental sustainability of regional urban systems. Nowadays spatial structures, polycentricity in particular, have assumed an increasing importance in both in territorial analysis and policy agendas of countries and regions. Structure has also been capturing the interest of spatial economics. In fact, urban systems have been subject to massive changes in the last decades, both from a physical and an economic point of view. Changes in the production processes promoted new forms of urban development, such as dispersion and polycentricity. Thus, it has been argued that also agglomeration economies, as well as diseconomies, are changing. Those are affecting environmental sustainability of spatial systems. In particular, the literature generally assumes that urban dispersion (sprawl) is harmful for the environmental performances of cities and regions, mainly because it stimulates habits such as the use of private transportation, causing greenhouse emissions and congestion, which turns into collective costs and diseconomies. Conversely, polycentric structures, which are characterised by high densities, are often assumed to foster both environmental and economic performances, because they allow for a more efficient land use. Hence, polycentric structures are highly promoted by spatial planning strategies and policies, in order to foster a balanced and sustainable development: it is a goal which has been promoted, for instance, by the European Spatial Development Perspective (1999) and, more recently, by the Territorial Agenda 2020 (2012). However, the role of polycentricity for environmental sustainability is not corroborated enough by empirical assessment. More in general, few empirical research about the relationships between regional form and economic efficiency, including environmental performances, has been carried out. Thus, the work aims to bridge this gap, providing an empirical application to Italian regions, which provide an interesting case study, being characterised by different paths of territorial and economic development that affected spatial distribution of economic activities between cities and their relationships. Regional spatial structures have been conceptualised in terms of urban size, sprawl and dispersion, by using several measures, which consider both the morphological and functional features of regions. The former aspect relates to the spatial distribution of people and jobs within the regions, while the latter considers flows and interaction between the centres of the region. Then, by using spatial economic analysis tools, we study the impact of structure on environmental performances in Italian NUTS-3 regions. In particular, we assess the effects of spatial structure on greenhouse car emissions and on energy use. The findings will allow to reflect on the effectiveness of polycentricity and dispersion for the ecological footprint of urban systems and, more in general, on the structural complexity of urban systems.

#### Gateway M

# 'THE RIGHT TO THE CITY', URBANISATION AND NEOLIBERALISM : WHAT IS THE ROLE FOR TERRITORIAL PLANNING

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The subject of the article is the relation between expanding urbanisation processes and neoliberal reforms in territorial planning and urban regulation. This relation has always been functional for the development of the capitalist city, hampering the creation of conditions for the "right to the city", defined by Harvey after Lefebvre, as "a right of individual access to the resources that the city embodies ... a collective rather than an individual right" (Harvey, David "The Right to the City" New Left Review 53, Sept-Oct 2008). Moreover, the development of extensive and intensive urbanisation programmes is connected with the housing bubble and the recent worldwide financial crisis, with implications for the rising national debt of many countries, particularly Portugal and Spain. In Europe the institutional and planning approaches for dealing with the development problems of expanding cities and urban regions combine different perspectives. All of them share a strong focus on the distinctiveness and the role of local societies and places. On the one hand, there has been a shift into more conservative governments and for decentralised and restructuring territorial policies for coping with the rising financial crisis of the state. The neoliberal urban reforms and the promotion of localism reflect these trends. On the other hand, in line with international organisations and state concerns for territorial cohesion and a more efficient use of public funds, investment in research and development programmes emphasize the need for place policies and place-based approaches. The development of local societies and territories reflects the problems articulating local with national / global actors and interests, different territorial scales and approaches to planning interventions, from strategic plans to urban projects. We argue that the role of territorial and spatial planning in a scenario of economic uncertainty and neoliberal policies emerges from an understanding of how these articulations occur and how different planning cultures mediate and produce governance practices for effectively programming urbanisation processes, reclaiming "the right to the city". The article explores the following different aspects: a) identifying discourses on urban regulation and territorial development; b) establishing critical relations between the financial crisis, the property sector and the crisis of the state using the case of Portugal; c) exploring different policy responses with similar political meanings - the localism bill in the UK and the territorial reforms in Portugal – and how they contrast with place-based development approaches; d) establishing articulations between jurisdictions, territorial scales and processes of intervention mediated and influenced by local planning cultures; and e) assessing the implications for planning and governance systems and for new planning methodologies.

#### Gateway E

# A PINT OF HAPPINESS! MEASURING THE IMPACT OF PUBLIC HOUSES ON COMMUNITIES' WELLBEING IN RURAL AND REMOTE AREAS OF ENGLAND

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In recent years, a number of studies have shown the importance of social and community cohesion with regard to communities' health and well-being. In communities where social cohesion is higher people are more included in, individuals are happier and in the most extreme cases enjoy better health. In Britain, recent research conducted on public houses (Ross and Mayo 2009, Cabras and Reggiani 2010, Canduela et al 2011, Cabras 2011) has demonstrated that these places are important hubs to foster social cohesion in a community. Indeed, pubs facilitate interpersonal communication among individuals and are important incubators for the development of human relationships, social networking and communal activities. The so-called village pubs represent vital and essential networking places for those communities located in disadvantaged areas with regard to major railway routes and road connections. Furthermore, village pubs are important employers and play a significant role in rural and peripheral areas, where there are fewer opportunities to find part-time and casual jobs for particular categories of workers. Cabras and Reggiani (2010) explored the role played by village pubs in creating social capital and business opportunities in Cumbria, Northern England, by testing the presence of one of more pubs in parishes against the level of socio-economic activity produced at a local level. Results obtained from their econometric study showed evidence of a positive relationship between the two. While these findings prove pubs to be important assets for rural communities, there has been a constant decline in their number during the past decades (Leach 2009). Their disappearance often results in the vanishing of socio-economic benefits arising from initiatives which frequently have an origin in the village pubs, which work as a network tier for the entire area (Cabras 2011). The aims of this paper are twofold: firstly, to demonstrate the importance

of public houses to facilitating social and community cohesion; and secondly, to determine if public houses contribute to well-being, whether it be directly or indirectly via social cohesion. To investigate these aims, the author explores and examines a unique dataset formed from the attributes of 2,779 rural parishes in England. The dataset was compiled from a number of sources, including the Office for National Statistics (ONS), National Archives (NA), and the Campaign for Real Ale (CAMRA). Information comprised in the dataset is diverse and span from socio-economic data to aspects of rural life, such as the organisation of markets and social events, volunteering services within communities etc. Results gathered from this study will be discussed and analysed with regard to issues concerning well-being and sustainable life in peripheral and remote areas of England. In addition, findings will be discussed in relation to policies and initiatives which can save rural public houses from closure and could halt the progressive decline of the number of these businesses in the UK.

## Gateway A1

### THE ISSUE OF REGIONAL PPS INDICATORS - CASE STUDY OF THE CZECH REPUBLIC

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The Purchasing Power Standard (PPS) is widely used for economic analyses, studies and strategic documents in the European Union. Although it is necessary to take the purchasing power i.e. price level into consideration, the PPS indicators are usually not usable at regional level (although widely used). The current PPS is not reflecting regional prices but is based on one country price level. This might lead to serious imperfections and misspecifications especially in relation to regionally oriented policies like the Cohesion Policy. Using PPS for analyzing regional economic processes like regional convergence reveals quite puzzling conclusions (among the countries convergence vs within the country regional divergence) which are supporting this possible problem of PPS. To get reliable research results, perform good analyses and undertake efficient policies it is probably necessary to adjust the PPS methodology for the case of European regions. In our contribution we show that there is a substantial difference between the currently used PPS and real regional purchasing power, i.e. price levels. We use the case study of the Czech Republic to demonstrate the differences and description of methodology.

### Gateway K2

# REGIONAL RESILIENCE AND EVOLUTIONARY TRENDS IN MARSHALLIAN INDUSTRIAL DISTRICTS: AN EMPIRICAL INVESTIGATION USING ITALIAN MICRO-DATA

## Jacopo Canello, Società Per Gli Studi Di Settore S.P.A., ITALY Paolo Pavone, Società Per Gli Studi Di Settore S.P.A., ITALY

The globalization of markets and production activities is drastically reshaping the economic landscape in most knowledge-based economies, with a relevant impact on the existing local networks: rather than representing temporary deviations from a unique equilibrium, these exogenous shocks are slowly driving most regional systems towards new and irreversible scenarios. In this evolving context, several concerns have been raised regarding the ability of these originally closed systems to adapt and react to the increasing external pressures, thus fostering a number of theoretical and empirical investigations on territorial resilience. The challenge raised by global markets is particularly daunting for the Marshallian industrial districts (IDs), where the strong specialization patterns in traditional and labour-intensive manufacturing sectors expose them to dangerous lockin dynamics potentially reducing their degree of adaptation to exogenous shocks. The aim of this paper is to provide empirical evidence of the evolutionary paths taken by the Italian IDs in the recent past, following the stimulus of the new global forces. Italy is seen as a particularly suitable setting to study this phenomenon, considering the key role played by the IDs in driving domestic development and economic growth till the last decade. This positive trend has been followed by a significant downturn, which is often considered as the consequence of the increasing competitive pressure from emerging countries. Case studies have reported a number of alternative strategies implemented by the ID firms to face the global challenge, including the establishment of niche markets, the diversification of business activities and the development of process and product innovation: such strategies have shown varying degree of success depending on the environmental conditions. Nonetheless, other centripetal forces driven by globalization, such as offshore outsourcing of production and selection of foreign specialized suppliers, are having a larger potential impact in transforming the IDs into open networks linked to the global value chains. This process is likely to have a number of different effects on the ID: the local subcontracting population may gradually decline, as a result of the inability of most firms to adapt to the changing scenario, or rather survive by building new links outside the district. Alternatively, the leading firms may exploit the opportunities provided by the global market while keeping intact the existing links with the local network. In the former cases the degree of resilience in the ID is limited, considering most economic and social ties break as a consequence of the external shocks, while in the latter circumstance resilience is likely to have occurred through the ID adaptive behaviour. In general, the core of the recent theoretical and empirical works have attempted to draw general lessons on the structural evolution of IDs from case studies or theoretical models: nevertheless, and despite these valuable contributions, a general picture is still far from emerging. This paper aims to fill part of the existing gap by providing a more general analysis of the issue. The empirical investigation relies on business population data extracted from the Italian Statistical Register of Active Enterprises (ASIA) to identify and map IDs for the period between 2005 and 2009. The quantitative framework used for the analysis is a revised version of the widely acknowledged algorithm proposed by Sforzi to identify this particular type of local productive systems. The new quantitative tool implemented in this paper is aimed at overcoming the main limitations reported by the recent literature, mostly concerned with the definition of the territorial and industrial boundaries, the structure of the tests and the industrial districts classification. The specific structure of the alternative framework is particularly suitable for the purpose of inspecting the evolutionary dynamics of these systems, thus providing a tool for the study of territorial resilience. The results of the analysis will be used to investigate the features of this phenomenon in IDs according to the theoretical perspectives proposed by the literature, by focusing on the impact of outsourcing patterns and their consequences in terms of ID adaptive behaviour. Although the limited time span at disposal is not sufficient to provide definite answers on how resilience is created, the updated picture emerging from this empirical investigation offers a number of suggestions to evaluate the degree to which the IDs have reacted to the exogenous shocks and the structural changes resulting from this effort. It is believed that this work will foster further discussion in the field of regional resilience, interacting with the existing and new case studies where a deeper analysis on cumulative causation and path dependency dynamics could help to explain the attitudes towards change of the local systems.

### *Gateway K3* ACADEMIC SPIN-OFFS IN CONTEST THE SELECTIVE ROLE OF OWN RESOURCES AND REGIONAL NETWORK EMBEDDEDNESS

# Uwe Cantner, Friedrich-Schiller-University Jena, GERMANY Maximilan Göthner, Friedrich-Schiller-University Jena, GERMANY Tina Wolf, Friedrich-Schiller-University Jena, GERMANY

Over the past decades, academic entrepreneurship -i.e., scientists founding own firms in order to commercially exploit their research and inventions - has started to be considered a third mission in which higher education institutions engage, in addition to their more traditional mandates of research and teaching (Etzkowitz, 2004; Shane, 2004; Wright et al., 2007). The underlying rational for this is to be rooted in the impact that scientific research has on high-technology sectors and, more generally, on today's knowledge-based economy (Dosi, 1988; Mansfield, 1998; Rosenberg & Nelson, 1994). Businesses created by academic scientists, so-called academic spin-off companies, are widely seen as important contributors to economic development (e.g., by transforming the results of scientific research into new innovative products and services) and societal wealth (e.g., by creating highly innovative jobs) (Roberts, 1991; Shane, 2004). Not surprisingly, governments in most industrialized countries are explicitly targeting the creation and growth of business start-ups from the public science sector (OECD, 2003). Besides legislative changes (mostly adopting models from the US, such as the Bayh-Dole Act of 1980), a number of structural mechanisms have been put in place like technology transfer organizations (TTOs), science parks, industrial liaison offices, and incubators directed at supporting and promoting entrepreneurial activity in academia (Wright et al., 2007). However, despite this growing acceptance of the importance of academic entrepreneurship for national economies, positions on the significance of academic spin-off companies for innovation, economic growth and industrial renewal compared to other types of entrepreneurial venturing vary greatly. On the one hand, a few empirical studies document the success of academic scientists when engaging in business creation (e.g., Shane, e.g. Zhang, 2009) and to grow less than other high-technology start-ups (e.g. Ensley & Hmieleski, 2005). Building on previous research on the resourcebased view of the firm which posits that initial resource endowments and strategic decisions can have longlasting effects on a start-up firm's future development, we identify a number of key determinants of new venture performance, comprising technological resources, financial resources, entrepreneurial human capital and the market strategy at founding. We propose that, due to "genetic characteristics" of academic spin-off companies (Colombo & Piva, 2008) these performance determinants may position science-based businesses on growth paths that are different from those of other innovative start-ups. In a previous paper (Cantner and Göthner 2011) we find that compared to normal start-ups academic spin-offs perform better in terms of innovative output and default risk, whereas in terms of employment growth no significant differences are found. These results, however, do not take into account any factors indicating external relationships and embeddedness of the young firm into the region and regional system. In addition and complementing initial resource endowments and strategic decisions we take into account the region-specific sources for cooperation and knowledge exchange. Some works see university-based knowledge spillovers as one such factor (Audretsch and Lehmann 2005, Cassia et al. 2009). We extend this approach to the regional innovator network (RIN), promoting region-specific knowledge spillovers. If a new venture is connected to a well-functioning RIN, knowledge spillovers result in new ideas, promoting firm's survival (Cantner and Wolf 2010). Moreover, it may not be irrelevant what characteristics the network has and which position the entrepreneur assumes within the network. In a recent paper (Canter and Wolf 2012) we find that a not to close connectedness and embeddedness of a young firm in its RIN has a positive influence on its survival. Here, academic spin-offs show to perform even better. In this paper we merge the two analyses and investigate the combined influence of firm specific resources on the one hand and collaborative embeddedness on the other hand on firm performance and survival. For this comparison we first distinguish academic spin-offs, normal start-ups and non-academic spin-offs. Another line of comparison is done by distinguishing between university based spin-offs and academic spin-offs from other research organizations.

#### *Gateway G*

# READING HETEROGENEOUS CITY-REGIONS: PERSPECTIVES ON THE URBAN REGION OF PORTO

## Rodrigo Cardoso, the Bartlett School of Planning- University College London, UK

In a time when visions of a coherent and confined city were replaced by notions of diffuse and unbounded urbanization, and the suspicion that digital economic flows make physical space irrelevant is confronted with increasingly complex territorial interventions, it is important to acknowledge that the current institutional, economic and cultural focus on cities happens simultaneously with their loss of prominence in favour of larger, polycentric urbanised regions. Porto, Portugal's second city is a specific case of embeddedness in a diluted urban region comprising a set of centres with some differentiation between them, but lacking a dominant core city in terms of population, economic and functional centrality and higher order services. The weak attractive power of traditional centres generated a territorial distribution which is fundamentally different from other cityregions whose hierarchies of core and periphery are more visible. Here, more than functional relationships or economic flows, it is the spatial distribution of urban programmes and material infrastructure that transcends administrative boundaries and hierarchic constrains. This implies that, arguably, the relevance of Porto as a functionally complete urban entity only occurs at the urban region scale, since there seem to be no competing, but rather indispensable and complementary centralities scattered throughout the territory. Therefore, spatial fragmentation and heterogeneity turn into central features of daily urban life. This is not a model of a core city deconcentrating into a city-region, but a web of cities densifying their inter-urban spaces until they build a contiguous and functionally complete urban region. Using the city-region of Porto as an illustration, the main purpose of this paper is to characterise and discuss the implications of this model, ask how it can be an asset for future development, and envision the narratives that can enhance its socio-economic development, political autonomy and regional identity. It will start by reviewing concepts about the materiality of cities and the spatial specificity of urban territories as active generators of political, social and economic life against other, physically more indifferent approaches to territory. Then, it will spatially describe diffuse urban regions in general, propose ways to visualise them through clear analogies and frameworks, and discuss the consequences of the full urbanisation of territories for urban/rural dichotomies, growth patterns of cities and the role of traditional urban cores. With this framework in mind, the paper will look at the aforementioned spatial structure of the urban region of Porto, and explain some of its unique features through Porto's condition of a national 'second city': a specifically European tradition of cities with a lesser presence from the state and state-driven economy, whose territorial distribution is less constrained by the polarising force of power institutions and high-end directional functions, and therefore escape more easily from the 'core city - secondary centres' model. Finally, it will address the lack of conscious planning options for this territorial scale, and the mismatch between the true dynamics of the territory and the political-administrative frames governing it. Considering that these decisionmaking frames are highly detached from the city-region scale, the paper will retrieve the concept of spatial specificity of urban space to discuss the possible advantages of aligning the local regionalist vision, now under discussion in Portugal, with the actual forms and flows of the urban territory. That approach will serve to suggest a governance model based on territorial evidence rather than political abstraction that accepts the cityregion as its rightful measure.

#### Gateway N

# ELECTRIC MOBILITY - INTEGRATING ELECTRIC CHARGING INFRASTRUCTURE, BUSINESS MODEL AND NETWORK OPERATOR

## Eduardo Carrajana, Lisbon University Institute, PORTUGAL José Carvalho, Lisbon University Institute, PORTUGAL

The clear possibility of the introduction of the electric car as a model of movement directly follows the volatility of the oil prices on the world market and increasing scientific evidence attributed to the greenhouse effect and its consequences on Earth. Besides the cost of the actual electric car and the reduced autonomy of the batteries, the problem of energy supply, in cities with electric vehicles, also appears as an obstacle to its widespread generalization and use. In addition, the production of electrical energy from renewable sources, for example by wind, and not consumed during night time, has a low yield for the production of energy. A third problem remains, which is, in terms of the open economy trend in this market, no longer a monopoly, the customer may select the supplier of electricity supply at any point, or that is closer. The resolution of this problem requires the interaction of several entities, whose roles are not only regulatory, as well as the development of a prototype, financial flow and electrical software and loading solutions. The harmonization of the integral framework for the charging system for electric vehicles is presented as the best way to attract new users to electrical mobility. Another aspect that should be studied is the introduction of the charging system in apartment buildings, which allows absorbing the flow of electrical peak, produced in wind farms and hydro-electric dams. This matter, at this stage, relates to the cost of investment and amortization and does not constitute, in advance, a technological problem. Moreover, the possibility of injecting power in the electrical network, vehicle-to-grid concept, is still an unresolved technical problem for the coming years. The need for an innovative model that will resolve the first two mentioned problems arises with the response developed in pilot projects since 2009, in several countries such as Israel, Denmark, Germany and Spain. The article will cross-reference the existing models of electric supply and the MOBLE project, currently in the pilot stage and being implemented in Portugal since 2009 and until 2012. It presents a solution to the third problem formulated. Since it is an open and intelligent architecture, this allows the selection of the energy provider, providing wide supplier range and, thus, a framework to integrate the element of electrical load with a business model and a network of operators. Under this project, the technological component-based information systems can connect to the Internet, which allows a real-time multi-channel connection. This project presents innovation and may be an example to the design of the future framework model.

## Gateway J1 AGGLOMERATION AND INNOVATION OUTCOMES IN PLANNED KNOWLEDGE LOCATIONS

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How do planned knowledge locations manage to agglomerate knowledge intensive companies and unleash new innovation ecosystems over time? Since the development of the first technopoles, agglomeration and development of innovation networks have been in the genesis of investing in planned knowledge locations such as science parks, technology hubs or, more recently, creative quarters. Knowledge locations are believed to provide opportunities for resource and facility sharing while facilitating networking and face-to-face contacts leading to knowledge exchange. They are also assumed as good settings to foster new linkages between entrepreneurs, industry and local knowledge institutes, as well as favourable environments for start-up ventures. Yet, despite such announced benefits, the empirical evidence on the economic and innovation success of knowledge locations is far from encouraging. Therefore, during the last decade-and-a-half many commentators called for a reassessment of their societal benefits, while others, more vehemently, plead to stop public

investments in such places. Yet, there are reasons to believe that the phenomena of knowledge locations in general and their outcomes in particular are still insufficiently and inadequately understood. Evidence on their relevance fostering agglomeration and innovation networks is contradictory, fragmented and seems to vary across locations. Moreover, existing literature is generally silent on the causal paths and mechanisms driving such outcomes and the differences across cases. For example, recent research has found out that technology parks in the US grew faster when specialized in a certain field (e.g. ICTs and biosciences) but called for further research to clarify the causes. Other authors argue that there is limited understanding on the types of market or system failures addressed by such locations, for example, their role in uniting stakeholders among common goals, or in contributing to change crystallized regional institutions and routines. Finally, the relation between the success of a knowledge location and its urban-regional environment is not fully clear: is it a question of urban scale or is it the fit between the location's design and a region's (innovation and production) context? All in all, an integrated conceptual framework is lacking as well as a theory to understand the development of different manifestations of knowledge locations. An important challenge relies on understanding the dynamic nature of such phenomena and their relations with the urban-regional contexts in which they are inserted. In this paper, based on hints from the literature and on an in-depth, longitudinal comparative case study of planned knowledge locations in Europe (in Finland, Ireland, Spain and Portugal), we bring forward a framework to understand the early emergence and development of knowledge locations in their regions. Namely, the framework puts forwards three constructs underpinning agglomeration dynamics and the development of new innovation ecosystems in a location - the tenant mix, its urban-spatial integration and management conditions establishing causal mechanisms linking them with agglomeration and innovation dynamics. Moreover, we suggest that the relations between these constructs and the dynamics of agglomeration in a location are mediated by processes of image building and institutional flexibility.

#### Gateway L

# EXPLORING THE LINKAGES BETWEEN CREATIVE CLUSTERING, HIGHER EDUCATION AND CULTURAL CONSUMPTION USING COMPLEXITY THEORY APPROACHES

## Caroline Chapain, University of Birmingham, UK

Complexity science has emerged in the last decades as a promising and powerful way of understanding a variety of systems, physical, biological, computational, social etc. It represents an approach to science, which sees that most phenomena or systems in the world cannot be understood without looking at their multiple interactions and interdependencies with other systems across different scales. Breaking with traditional reductionist approaches in science, complexity focuses on studying how diverse components and systems interact in space and time leading to the creation of new forms of order and organisation. As complexity science has started maturing, its policy relevance and influence has grown (e.g. OECD Report 2008, Geyer and Rihani, 2010, Johnson, 2010). However, despite an increasing body of research using complexity science in social sciences and the arts and humanities (e.g. Alexiou et al, 2009) there is still very little research focussed on understanding and supporting the creative economy (e.g Comunian, 2010). This paper will use theoretical and methodological approaches from the complexity theory field and apply them to better understand the links between creative production and creative consumption at the local and regional levels. Based on the literature around creative clustering, the project aims to test if the concentrations of creative firms in specific geographic locations in the South East region (UK) are linked with the presence of creative graduates and /or cultural consumptions in these areas. The paper is mostly quantitative in nature and combines various databases on firms, higher education institutions and cultural consumption in new ways, using methodological tools borrowed from the complexity theory. It is expected that this original methodology will help shed new lights on creative clustering processes and the degree of their local embeddedness. In addition, the paper will discuss the potential policy implications of the findings for the newly created Local Enterprise Partnerships in England.

### Gateway J1

# FROM TECHNOPOLES TO SCIENCE CITIES: CHARACTERISTICS OF A NEW PHASE OF SCIENCE CITIES

## David Charles, EPRC, University of Strathclyde, UK

Hall and Castells' book on Technopoles of the world included a number of cases of cities built to exploit investment in science such as Akademgorok and Tsukuba Science city. These megaprojects brought together a cluster of largely government funded research facilities as national developments in new cities. In recent years this idea of the science city has seen further development and it can be argued that the concept has passed through three generations, each generation enlarging on the concept whilst also shifting from the idea of a new city to the transformation of existing cities. In this paper we begin by outlining the nature of this evolution of science city models from the original science based new towns to large-scale science parks for national economic development to a current generation of science-based development strategies in existing cities.

• 1st Wave: The term science city emerged in the context of purpose-built, campus-based new towns, nationally instigated and hosting new public basic research. Examples include Akademgorodok in Siberia and Tsukuba in Japan.

• 2nd Wave: Several Asian countries developed the concept into large scale capital developments funded by national governments, often on the outskirts of existing cities, heavily orientated towards developmental applied science and the attraction of multinational research centres as well as supporting local and national industry. Examples include Biopolis in Singapore, Hsinchu in Taiwan and Daedeok in Korea.

• 3rd Wave: The more recent science city designations tend to place science-based economic development within existing metropolitan areas. A broader social mandate concerned with social inclusion and public engagement with science emerges in many of the cases as a wider local partnership is constructed to develop the vision. These new third generation science cities are exemplified by the UK science city programme, but there are many other such examples around the world, some with a science city label, others with science city type policy frameworks but without the label. The paper then explores the characteristics of this new generation of science cities in terms of a set of key attributes:

• The science city vision: what kind of vision has emerged and what is the process by which it has been developed?

• Governance arrangements and partnerships: what kinds of governance arrangements have developed and are they determined by the nature of multi-level governance arrangements within the particular countries?

• Conceptualisations of innovation: has there been a development in the way in which science city partnerships conceptualise innovation beyond the old linear supply push model?

• International orientation: are science cities taking an international orientation or focusing on domestic policy agendas? • Funding: how are science city projects being funded? These characteristics are explored in the cases of the UK science cities, as well as other international cases such as Brisbane, Barcelona, and Singapore.

## Gateway G1

# ADOPTION FRAMEWORK OF GREEN BUILDING GUIDELINES IN DEVELOPING COUNTRIES: INDIA, INDONESIA, AND TURKEY CASES

## Citra Chergia, Istanbul Technical University, TURKEY Esin Ergen, Istanbul Technical University, TURKEY Sinem Korkmaz, Michigan State University, USA

Throughout last decade green buildings became one of the important elements in the global effort to build smart city and reach higher sustainability through more efficient use of scarce natural resources and producing less waste. As a result of the development in green building concepts, many countries have established their green building councils and guidelines. Such guidelines are considered as one of the widely recognized innovations in the construction industry. This study focused on examining how green building guidelines diffuse in developing countries which have relatively young green building movement compared with developed countries that have long history of the green building guidelines. Adoption framework of green building guidelines in developing countries is built based on examples of three developing countries: India, Indonesia, and Turkey. These three countries have similar circumstances but with different situation. India has successfully established green building guidelines can catalyze the number of certified green building guidelines. Indonesia has established

green building council and launched its green building guideline. However, the number of certified green building guidelines is quite low and centralized in the capital city. Turkey has already had its green building council. Nevertheless, this country is using international green building guidelines (Leadership in Energy and Environment Design – LEED from the U.S., and Building Research Establishment Environmental Assessment Method – BREEAM from the U.K.), and working on framing their green building guidelines based on the existing ones. The study is done through a thorough literature review, evolution of green building movements, and survey in those selected countries in which participated 150 experts representing individuals, private and governmental sectors. Based on the findings, this study offers adoption framework of green building guidelines in developing countries consists of:

- (1) the most useful sources of information to bring awareness about green building guidelines;
- (2) individual's and company's motivation to adopt green building guidelines;
- (3) incentives and barriers associated with green building guidelines; and
- (4) "Diffusion of Innovation" category that defines the current state of each adopter organization. However, as the result is developed only according to data from three countries, future verification based on other countries experiences will be necessary. Nevertheless, the adaption framework proposed in this study can serve as a foundation for future progress towards more sustainable buildings in many developing countries.

## Gateway I

# **BEYOND COHESION DISCOURSE: IS THERE CROSS-BORDER SPATIAL DEVELOPMENT IN EUROPE?**

## Tobias Chilla, University of Erlangen, GERMANY

Border regions are often considered as laboratories of European integration and of cohesion policy. The INTERREG programmes and the European Groupings of Territorial Cooperation (EGTC) are just two prominent key words. The new EU objective of territorial cohesion raises the question what we can learn from border regions for cohesion policy in general. The paper at hand takes stock of the current situation on a European scale and elaborates two main arguments: Firstly, a European wide comparison of border regions shows a differing maturity of territorial cross-border cooperation. A high degree of abstractness and a low degree of abidingness seems to be rather typical for current strategies of cross-border territorial development. Secondly, the obvious difference between political ambitions and the state of the art is due to many reasons and barriers. The paper postulates that the 'multi-level misfit' is one of the most important reasons and discusses which development options are the most probable scenarios for future development. The paper is based on the involvement in a series of ESPON projects (Ulysses, Terco, Metroborder).

## *Gateway G*

# THE GOVERNANCE OF URBAN PUBLIC TRANSPORT SYSTEMS: THE CASE OF ZURICH (ZVV)

# Aris Christodoulou, École polytechnique fédérale de Lausanne (EPFL), SWITZERLAND Matthias Finger, École polytechnique fédérale de Lausanne, (EPFL), SWITZERLAND

The complexity of urban systems is reflected in all network industries and in the urban transport systems in general. Our research focuses on the modelling of the governance of the public transport system as well as on the exploration of the role of intelligent systems as a means of improving their performance. The types of governance of public transport vary from city to city worldwide and are linked to institutional legacies, ownership and others more. In the urban context, public transport services need to be integrated in order to best serve the needs of users and to provide a reliable service. Such integration can be achieved by means of a regional transport authority coordinating and contracting transport operators and which is furthermore responsible for planning, operations and financing. This is for example the model of the transport authority of the canton of Zurich in Switzerland, i.e., the ZVV (Zürcher Verkehrsverbund), which serves as the case study of this research. In the case of Zurich, operations are mainly coordinated by the transport companies, whereas ZVV is responsible for the strategic planning, as well as for the financing and marketing of the transport system. This paper will present a framework for the analysis of the governance of an urban public transport system and its

impact on performance. According to this framework the transport system is represented through the interactions of its main actors which are the following:

(a) the transport authority, i.e., the ZVV which is coordinating and contracting transport companies and operators as well as financing the system,

(b) public authorities, mainly the municipalities, which have service requests and are partly financing the system via ZVV,

(c) the transport companies which are coordinating operations, implementing timetable requests and subcontracting transport operators,

(d) the transport operators which are running the everyday operations of the transport network and

(e) the users, i.e., the passengers.

The governance system defines the relationships between

(a) the transport authority and the companies/operators,

(b)the transport authority and local authorities and

(c) the transport companies/operators and the users.

A simulation model based on this framework will be developed. In order to evaluate the impact of governance, we will focus on two types of performance: economic and operational. Regarding economic performance measures to be used include the annual deficit, but also indicators relating cost to passengers as well as to the public transport network more generally. Operational performance is divided in two broad categories: the first one has to do with the efficiency and effectiveness of the labour/employees of the transport system and the second with the quality of the service provided. Although the evaluation of the level of service is of high interest, the efficient usage of resources, such as labour, affects both economics and operations. Furthermore, it is anticipated that the type of ownership affects labour efficiency. On the other hand, it is also expected that under a private and revenue-driven scheme, network characteristics such as frequency of service will be directly related to profitability. The analysis of the transport system in the case of ZVV will be conducted at two levels. First, the organisational structure of the transport authority or agency will be discussed, looking at the interactions between the actors involved in planning, operation and financing of the system. Secondly, the transport system will be modelled in the context of the urban or regional system in order to measure total operational and economic performance. Here, issues relevant to demand for transport will be taken into account.

#### Gateway E

# FORMATION OF SPATIAL IDENTITIES IN AREAS WITH INTENSIVELY CHANGED LANDSCAPE: THE CASE OF NORTH- WESTERN BOHEMIA

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Landscape and regional identity are concepts that are frequently mentioned in relation to regional development and spatial planning. However, their mutual relationship is often overlooked. On the one hand, we can speak of the role of regional identity in regional development, yet on the other hand, we can also speak about the necessity of planning and landscape protection, because the landscape constitutes an important part of our identity (the European Landscape Convention). These concepts are, inter alia, mentioned in the context of areas, where inhabitants are not firmly established and where their relationship to a given area can be stated nonunambiguously. Such regions, in particular, are often perceived and classified as areas of intensive landscape change. This is true of suburban zones as well as of such areas as the borderland regions that were resettled after the transfer of the Czech Germans (after WW II). Both can be defined as areas that experienced intensive landscape changes and for which the impact of these changes on inhabitants' relationship to the territory they live in is evident. The perceived intensity of landscape change is relative, i.e. in relation to something, and its conditionality is complex. Thus, changes that occurred a long time ago, relatively speaking, can be perceived as intensive, as well as relatively recent changes. However, both types of change exhibit certain, substantial common features: 1) the fact that they have not yet been overcome or resolved; 2) their suddenness and speed partly determine their perceived significance. Identity describes the manner in which, either an individual or a group of individuals define themselves, recognize their existence (uniqueness) and support their consciousness in relation to others. Identity can exhibit a number of forms that mutually overlap or complement one another. It is not uncommon for these forms to compete one with another. The spatial (geographical) aspect is one of many aspects represented in the identity forming process. People's relationship to their region is a natural part of their life. A particular territory with its unique social, economic or developmental conditions (with unique historical development) serves as a base for the formation of spatial/regional identity. The paper develops researches on regional identity (concepts of the new regional and cultural geography) and historical geography (land use changes, landscape as heritage etc.). It focuses on analysis of the process of formation of regional identity and identity of regions in the areas in Czechia where the landscape has been intensively changed. It deals with identification of the inner development potential of the principal research area (North-Western Bohemia defined by 3 regions: Ustecky, Karlovarsky, Liberecky) from socio-economic and socio-cultural points of view. In the first part of the paper, the inner image (its perception by its inhabitants) as well as the outer image (within Czechia) of the whole research area will be analyzed. Second part, the analysis of model regions (with different geographical location, intensity of landscape changes and lifestyles of inhabitants), will focus on the issue of regional identity formation in the context of landscape changes.

#### Gateway L

# CREATIVITY AND THE 'POST-CONFLICT' SOCIETY? THE CASE OF BELFAST, NORTHERN IRELAND

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The 'Creative Class' thesis suggests that the ability to attract creativity and to be open to diverse groups of people of different ethnic, racial and lifestyle groups provides distinct advantages to regions in innovating and growing their economy. While this view is of course not universally accepted, there is growing empirical evidence from North America, Europe and the UK that can be used to support these claims. However, there is also recent evidence that 'context matters' when seeking to understand the locational choices of creative knowledge workers, aka the creative class. Of specific interest to us here is the question as to what such a model of economic development might mean for cities which have experienced high levels of social division and/or actual conflict? To this end, in this paper we consider the case of Belfast (Northern Ireland), and the context of Northern Ireland more generally. Northern Ireland was for many years the scene of a violent and bitter ethno-political conflict - known as 'The Troubles' - between nationalists (predominantly Roman Catholic and seeking unification with the Republic of Ireland) and unionists (predominantly Protestant and intent on maintaining Northern Ireland as part of the United Kingdom). The Troubles are typically viewed as beginning in the late 1960s and generally considered to have ended with the 'Good Friday' Agreement of 1998. Since 1999, Northern Ireland has possessed devolved governance within the UK via the Northern Ireland Assembly. However, the legacy of nearly four decades of conflict persists, and sporadic violence has been ongoing. If it is indeed true that the most economically successful places are those which are characterised by tolerance, diversity, creativity and social cohesion, how can the various stakeholders in a post conflict and divided society address this in social and economic policy? To this end this paper seeks to address the following questions:

- What is the current context in Northern Ireland in terms of diversity and inclusion?
- What are the implications of this for current government policies?
- What are the unique challenges faced in developing the idea of a 'Creative Class' in Northern Ireland?

Although Northern Ireland has become a more diverse society in recent years, the size of the minority ethnic and religious communities is still much smaller than many other European countries. Northern Ireland remains a predominantly white and Christian society, albeit a deeply divided one. However, there is evidence of a significant level of intolerance towards even this relatively limited level of ethnic and religious diversity. We suggest that this is unsurprising in a post conflict and divided society in which there have been generations of acceptance of fear and mistrust of the 'other side'. Crucially, with regard to policy-making, tolerance and inclusion appear to be regarded as an outcome of a strong economy, rather than being among the drivers of prosperity in Northern Ireland. Moreover, The Draft Programme for Government document makes no mention of migration, diversity or ethnic minorities. Thus the approach has essentially been to address problems created by migration in the 'stand alone' spheres of service provision and so on, rather than to develop a long term policy on migration as an opportunity, as envisaged in the 'Creative Class' within the knowledge-based sectors. Moreover we suggest that the failure to adequately join-up the social cohesion policy agenda with the economic development and innovation one has exacerbated the presence of an untapped reservoir of indigenous creativity within Northern Ireland. Finally, we consider limitations to viewing the Northern Ireland situation through the lens of a 'creative class' model in the context of what other related policy options might be available. We also speculate upon what lessons there might be for, or from, other post-conflict or transition cities.

## UNDERSTANDING 'BRAIN FLOWS' AS DIFFERENT PROBLEMS IN REGIONS

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Despite the economic crisis and increasing unemployment all over Europe the lack of human capital (especially highly educated) in particular regions is a growing issue on the European, national and regional political agendas. The presence of human capital in a region is not static but relates to 'brain flows', the sum of brain 'drains', 'gains' and 'circulations'. Just as technology and investments flow to the places that can achieve the greatest return and generate innovation, so also human capital or 'brains' circulate in the global labour market. Brain flow at the first glance, is mainly positive as the flowing of knowledge and social capital between regions avoid regional lock-ins, it changes into negative when the flow of brains turns into brain drain. Brain flows as such may not pose a problem in regions and cities (housing and infrastructure permit-ting), but its economic, social and ecological consequences might be a problem. Brain flows in terms of the exodus of highly educated inhabitants to other regions, the immigration of highly indicated into the region or return migration are natural processes. The significance of 'brain flows' for regional development have increased due to a number of factors: - as a side effect of globalisation, there is a concentration of international enterprises in metropolitan areas leading to a migration of highly-qualified employers into these bigger cities;

- the attraction of metropolitan regions for young, highly educated people; particularly the so called 'soft' settlement factors but also the availability of suitable jobs has grown;

- the new European labour market, where cross-border labour and housing mobility is becoming increasingly important

as a consequence of demographic change and a overall migration trend towards metropolis human capital is lost in peripheral regions. An ageing population through the retirement of the aged population eventually means less young people and a shrinking labour force in the peripheral regions. Brain flows present us with multi-angle subjective interpretive problems. Different stakeholders in different regions will view brain flows problematic for a variety of reasons with different criteria. The same regional facts can lead in a different context to different perceived problems. Factors that cause brain drain have similar roots but can also be very different between regions. Defining a problem is not solving it. But to be able to take tailored measures to influence 'brain flows' we need to zoom into the specific problem conditions and circumstances of regions. This paper seeks to provide a comprehensive understanding of different views and interpretation, and argue how policy can best deal with such differences while striving for the exchange of policy lessons between regions and implementing them into the given regional cultures. This paper addresses the question, how and why can we categorize 'brain flow' as a problem in a specific region?'. The paper discusses the first empirical results of the sub-project BUTTON - Pushing the right Button, Towards tailored policy measures to attract and retain highly educated workers, is as part of the INTERREG IV C Mini-Programme 'Brain Flow', founded by the ERDF. This subproject is focused on delivering tailor made policy options for every region based on an understanding of attraction, retention and expulsion of highly educated people. Based on a broad understanding of the problems in attracting and retaining highly educated workers, and an inventory and elaboration of policy options, the project will produce tailored assessments and policy prescriptions in six European regions, namely Detmold (North Rhine-Westphalia, Germany), Hedmark (Norway), Navarra (Spain), Twente (Overijssel, Netherlands), Arnhen-Nijmegen (Gelderland Netherlands) Nordwestschweiz/ Basel (Switzerland).

#### Gateway L

# FESTIVALS AS COMMUNITIES OF PRACTICE: LEARNING BY DOING AND KNOWLEDGE NETWORKS AMONGST ARTISTS

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Most of the current research and debate on the impact and role played by arts festivals in regional development concentrate on their external impact. In particular, they focus on two aspects: firstly, the economic impact of the festivals and their potential to attract tourism and therefore local expenditure; secondly, they focus on their role in re-branding or regenerating the locale, specifically looking at pride in place, social cohesion and participation of specific social groups. Instead of looking at the external impact of festivals on communities and economies, this paper wants to explore what is the impact of festivals on one of their core stakeholders: participating artists (Glow and Caust, 2010). The paper uses key theoretical approaches from the regional studies field, such

'communities of practice' (Wenger, 1998), 'learning by (Arrow, 1962), learning-by- interacting (Lundvall, 1992) and 'temporary architectures of learning' (Grabher, 2004) to explore the creative practice of artists involved in an emerging UK arts festival (Fuse Festival, Medway). It tries to capture the role of the festival on artists' careers and connections, as well as their creative practice and its potential to connect artists with other creative producers. Using the methodological framework offered by complexity theory, the paper adopts three different methodologies: semi-structured qualitative interviews with artists and creative practicioners; cognitive maps to expose the creative practice of artists; and social network analysis to reflect on the social connections established through the festival and the impact of the Festival in supporting and supporting the artistic work. They also expose the temporary and explorative nature of many artistic practices and the 'learning by interacting' (Lundvall, 1992) with audiences and other creative producers which characterise many performances. Finally, especially for emerging acts, festivals represent a temporary opportunity to learning and exchange knowledge with other artists - although within a very restricted timeframe. The voices of artists taking part in the Fuse festival seems to express the need for new opportunities for learning and sharing to be developed within the context of festivals themselves.

### Gateway F DIRECTING GROWTH IN EUROPE: THE EMERGING EUROPEAN PARADIGM

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The creation of the European Union has been based on various economic theories, such as the neoclassic, endogenous growth, competitiveness and the optimum currency area theory, as well as those views held on the significance of infrastructure, institutions, entrepreneurship, new firm formation, SME support, sustainability and smart growth. Despite initial expectations and official views and assessments, the peripheral and less advanced states share a smaller proportion of benefits, which, as it is gradually being realised, favour mostly the most advanced and central European economies. The present study provides similar evidence, using a sample of 34 European states and testing changes in the correlation coefficients of numerous variables and their significance, over the 2001-2008 period. It appears that the extent of the divergence problem has not been realised in depth and that the theories of economic geography and regional studies have not been taken into account in their appropriate dimensions. The opening of EU borders and the operation of the Euro-zone is associated with an unprecedented competitive pressure exercised on peripheral EU states, with substantial unemployment rising, increasing backwash effects, large immigration influxes that first arrive at the periphery and continuous social change taking place. These conditions lead to a rather unstable environment at the EU periphery. Despite a plethora of economic and social problems appearing in peripheries, the creation of largescale disequilibria, imbalances and the establishment of backward and forward linkages among EU economies have now paved the way for peripheral EU states to enter a new phase of development (Rostow, 1964), by enforcing their clustering around central and advanced EU economies. A 'big push' is now needed in the economies of peripheral and less advanced states (Rosestein-Rodan, 1943), through large-scale investment projects that would create hybrid products of high added value (Stiglitz and Dixit (1970)), enough to bring a long-term restructuring effect first in peripheries and progressively in the centres and to provide a sufficient number of jobs, by the creation of many small businesses. The European economy needs now to turn gradually to a European-level cluster, for which the most substantial initial steps have already been taken. Following this direction should draw all the necessary elements from teachings on cluster theory that would help to promote and enforce an environment ('milieu') of economic 'amyllae' rather than that of harsh competition. Implementing this environment would require the renewal of political personnel at the EU periphery. 1. In the ancient Olympic Games, the Greek City-States did not compete against each other, but rather participated in an environment of noble competition and collaboration that targeted mostly at the organisation of the Games and was characterized by 'amyllae'.

#### Gateway NI

# KEY CHARACTERISTICS AND DRIVING FORCES OF EUROPEAN AND ASIAN AIRPORT CITY DEVELOPMENTS. IS THERE POTENTIAL FOR TRANSFER?

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Worldwide, the business environment of airports has fundamentally changed, forcing airport operators to reorient their business areas in consequence. Ever since, they have intensified their involvement in the real estate development at and around airports, a process popularized by the term of "airport city development". Sometimes these developments spread out up to 15-20 Miles around the terminal building. Prominent examples of these developments are Amsterdam Schiphol, Seoul-Incheon, Kuala Lumpur, Hong Kong Chek lap Kok or Helsinki-Vantaa. Another important underlying driver of aviation-linked spatial patterns at and around international airports are the changed location requirements of knowledge-intensive companies. In recent years, these companies have started to relocate their branch offices from traditional CBDs close to the airport. The paper adresses the changing role of European and Asian airports and their specific impacts on the spatial structure. Airports are not just airports anymore. They are network-infrastructures and resemble more and more urban-like entities. The empirical analysis identifies and compares characteristics and drivers of selected European and Asian airport city developments. The paper asks, if there are more differences or similarities between them. Which driving factors are likely to be transferable and to what spatial consequence?

## Gateway H1 VIRTUAL AND PHYSICAL INTERACTION PATTERNS: COMMUTING AND CALLING IN NORTH PORTUGAL

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There are increasing opportunities to decompose the meso-level spatial dynamics that are much studied in quantitative regional studies by examining patterns of individual interactions. Research on individual mobility and networking behaviour is becoming possible through the emergence of mobile telephone interaction datasets. It may be suggested that such datasets will in future replace the need for the scarce and costly-to-collect data researchers on which have previously relied, such as Census datasets reporting area-to-area flows of migrants or, more especially, daily commuters. What is not yet known is how strongly similar the spatial patterns of mobile call flows are to commuting flows, or whether the differences found can then be accounted for by taking account of where the call was from and to (and also perhaps when the call was made). The case study covers the northern region of Portugal and the mobile call dataset derives from anonymised records of subscribers with one large network provider over twelve months. The analyses focus on the intensity of call flows between pairs of municipalities (based on the location of cell towers within each municipality). A preliminary stage of the analysis requires that due account is taken of the nature of each municipality (e.g. urban status, local social and demographic structure, type of jobs available there etc). The underlying hypothesis is that the mobile data reflects patterns of social interaction which may be quite different to the economic interaction that commuting flows represent, so the analyses need to take account of some different attributes of the places involved to those in models of commuting flows. It could also be that distance is much less of a deterrence to mobile calling because costs do not increase by distance in the same way as they do with physical interactions. After examining the relative role of these various factors in shaping the spatial patterning of mobile calls, the overall flow pattern is compared with that in the Census data on commuting flows. Some earlier work has developed an algorithm to analyse longitudinally the location and time of the calls by each anonymised user to generate proxy individual-level commuting flow data. Grouping this proxy data by municipality allows a comparison of the spatial patterns in this dataset with those in the Census data on commuting. At a later stage, it is intended to use the time stamping of the call data to examine how the overall patterns analysed in this paper vary by different times of day - for example, calls apparently made from work as opposed to those apparently from home - and vary between weekdays generally and weekends or holidays.

#### Gateway UF1

# MULTIFUNCTIONAL OPEN SPACES: A CHALLENGE FOR SUSTAINABLE SPATIAL PLANNING OF THE URBAN FRINGE IN ALPINE CITY REGIONS

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Urban sprawl, suburbanization, peri-urbanization: whatever the name used for the ongoing processes, the increasing functional interactions between urban centres and surrounding rural areas establish new urban-rural relations and reinforce underlying dynamics. This outgrowth of traditional boundaries of cities and towns as well as the striving for efficiency gains in planning processes has drawn a changing regard on the city itself as a larger functional area. Especially promoted by European policy objectives, namely the ESDP (CEC, 1999) and the Lisbon and Göteborg Agendas, the focus is laid on an integrative city region approach that builds on ruralurban partnership, in order to balance economic, environmental and social interests. They give the opportunity to question the role of land use planning assuming that it cannot be reduced to sole regulation of the spatial impact of economic development. It rather constitutes a strategic process that encounters current spatial dynamics in enlarging functional urban areas such as social change, economic polarization, urban expansion and the loss and fragmentation of landscapes. These sources of tension and the shift in planning systems apply in particular to urban fringes and their open spaces, situated on the edge between the city and its countryside. Recognized for their multifunctional character, they call for sustainable regulation and management and have become key spaces for spatial planning policy. The paper asks therefore whether and how regional and local planning systems adopt good governance practices and apply new approaches and tools to face the challenges of a sustainable development of the urban fringe. The paper concentrates in its analysis on planning systems in different alpine regions, spaces that share the common characteristic of morphologically constraint settlement areas. Dynamic alpine agglomerations have experienced a constant population growth since the 1970s due to residential and economic attractiveness. They extended their settlement areas along valley bottoms and to accessible mountain areas. Therefore today, urban fringes comprise a significant proportion of high value natural and agricultural open spaces, and besides serve as a multifunctional productive space. Their management has to meet recreation and tourism interests, account for ecosystem services provision for the cities and local food production, ensure biodiversity and environmental protection and finally respond to a high residential demand. In order to sustain this multifunctionality in a naturally constrained space, spatial planning has to explore and rethink tools, institutional arrangements and governance practices. Thereby, it has to take into account on the one hand the given multi-level framework of planning policy, i.e. EU, national and regional planning as well as local objectives for economic growth, environmental protection and population dynamics. On the other hand, it has to involve a broad array of actors and interest groups from private and public sectors in the planning process. Despite European and other international planning principles, spatial planning cultures and routines remain heterogeneous among alpine states and regions, although city regions and especially urban fringes face similar challenges. The proposed paper gives hence a comparison of planning cultures and practices with regard to implications on a balanced urban fringe development. The paper uses a comparative approach on the regional level of two different alpine planning systems: Savoy, France and Tyrol, Austria. In both cases, high residential pressure on high value open spaces questions other uses and services provided by these areas. Results will highlight the current planning practice and its obstacles, placing special emphasis on new ideas and arrangements that address the multifunctionality of urban fringes.

## Gateway H FINANCIALIZATION AND SPACE: AN INVESTIGATION OF AN EMERGENT COUNTRY

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The aim of the paper is to show the diffusion of financial institutions across the Brazilian territory in the last ten years. This process of spreading of financial institutions has been governed by two interconnected phenomena: the evolution of urban hierarchies with its consequences over the evolution of the hierarchies of the financial system; and the diffusion of the financialization across the country. As it is well known, the Brazilian territory

is a fragmented space characterized by the existence of a number of incomplete urban nuclei, in the sense that they are unable to embed a complex service sector, they are made of few complete urban agglomerations - far from constituting a polycentric spatial system – and characterized by considerable spatial income inequalities. In particular, the gap - in terms of the quality of the services supplied - among these few complete urban agglomerations and those many incomplete urban nuclei is very large. Associated with the previously aspect of small urban density, it is also relevant to take into account that, for the Brazilian case, the surroundings of big, metropolitan cities are usually of subsistence (meaning that the diversification and quality of services and goods and the productive structure are low as the level of income). In this case, the tertiary concentration and centralization does not follow a territorially contiguous urban hierarchy, and a strong segmentation of such a hierarchy in the regional surroundings occurs, mainly by the absence of medium-sized urban centres, which would be able to absorb complementary industrial activities sustained by the supply of services by the urban centre pole. This feature of the Brazilian space has its mirror in the way the financial system is organized across the territory. As shown by Crocco (2010), the financial system in Brazil shows a hierarchy much more segmented than the urban system as a whole, with deleterious consequences for the evolution of regional disparities inside the country. The way the phenomenon of financialization takes place in Brazil is also an important element to explain the spread of financial institutions across the territory. Financialization is understood here as the "growing influence of capital markets, their intermediaries, and processes in contemporary economic and political life" (Pike and Pollard, 2010, p. 30). The intensity of this process is influenced by the features of the Brazilian space, both in terms of its insertion in the international financial system and in terms of its domestic fragmentation. In these sense, the paper adopts the idea that financialization is not a concept that flies over the space, but it has a territorial dimension. In other words, the degree of financialization, being understood as the diffusion of capital markets values in the corporate sector, the political dominance of the finance power or the penetration of finance way of thinking in the social and cultural life of people, is influenced by the way the space, here understood as a social construct, is organized. The analysis of the evolution of financial institutions over the Brazilian territory is a valuable way to understand the dynamics of the financialization inside the country. It can show how the spreading of those social, cultural and economic practises related to financialization evolves in a very fragmented territory, both in terms of regional and urban development. The period of analysis (2000 to 2010) is relevant as it comprehends three distinctive phases of the Brazilian economy: the end of the period of intensive use of neoliberal policies; the turn to a more developmental approach, with an outstanding economic performance; and finally the period of the global financial crisis.

## Gateway E ICT IN POLISH AGRICULTURE - THE WAY TO OVERCOME SPATIAL PERIPHERALITY?

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Information & Communication Technologies (ICT) became indispensable element of contemporary human activity. They're used practically in all domains of life, also in modern agriculture economy. Farmer is gaining and extending his knowledge by means of them. ICT allow entering into contacts with other producers and agricultural services, to realize a promotion of agricultural products and services and order indispensable production goods. Access to modern ICT in agriculture is a basic element, determining correct and efficient activities of today's farms. The role and importance of each ICT element is still growing. But nowadays in the communication process the most important is the access to Internet, IT and mobile telephony. Especially internet creates unlimited opportunities to acquire and exchange of information. It's making possible the convenient realization of higher level services irrespective of distances. So called 'information society' is absolute condition for social and economic development, and to improve regions competition. To enable optimal using ICT, two basic conditions should be fulfilled: common access to ICT facilities and appropriate skills of users (knowledge and references). In the presentations main findings from a two-year project run in the Institute of Geography and Spatial Organization PAS titled ICT as an element of modernization of agriculture. Spatial analysis and diagnosis of utilization of ICT in agriculture in Mazovia Region will be presented. The

main aim of the project is to diagnose level of ICT use by farmers: from different parts of Mazovia region, from different types of agriculture area and from different localization towards to the city. In the project framework, among the others, over 1400 questionnaire interviews with farm owners from intentionally chosen 20 rural municipalities are realized. These municipalities are in different distances from Warsaw and are representing 6 different functional types. The gained results allowed making deepened analysis of successive phases of proceeding rural areas modernization in respect of ICT.

#### Gateway F1

## COMPARING THE EFFECTIVENESS AND IMPACTS OF HORIZONTAL PARTNERSHIP IN IMPLEMENTATION OF EU COHESION POLICY: EVIDENCE FROM CENTRAL AND EASTERN EUROPEAN REGIONS.

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EU cohesion policy is often credited for improving cooperation and coordination in the delivery of the regional development policy with the EU member states through the partnership principle. Existing studies showed that the later can alter the domestic centre-periphery relations creating scope for a growing role of the regional tier and greater bottom-up regional involvement in economic development policy. However, lack of traditions of decentralisation and collaborative policy-making as well as limited capacity of sub-national actors can result in uneven application and impact of the partnership principle across the member states. This prompts a question about the transferability of partnership and multi-level governance approach to the new member states characterised by weakly institutionalised sub-national authorities, legacy of centralised policy-making and weak civic involvement. Can one make the partnership principle work in the Central and Eastern European context? How do the sub-national actors respond to this new practice imposed upon them with the SF framework? Do they comply superficially or do they learn how to put it into practice and internalise it over time? This paper addresses those issues through a comparative case study. It sheds light on the mechanisms and outcomes of adjustment to EU cohesion policy' partnership principle and identifies the domestic factors affecting this process in in three countries with differentiated systems of territorial administration: Poland, the Czech Republic and Hungary. By doing so, the paper assesses EU cohesion policy's capacity to promote an inclusive regional governance and cooperative behaviour in Central and Eastern European countries. The study presented in the paper was based on 46 semi-structured interviews conducted with the key policy actors and stakeholders during winter of 2011 in Poland (Lower Silesia), Czech Republic (South East region) and Hungary (South Transdanubia) as well in these countries' capital cities. While the few existing studies on horizontal partnership focus on NGOs and economic and social partners this research puts emphasis on cooperation within the territorial administration across different levels and project level partnership. The study reveals that in all of the three countries studied, given their shared legacy of democratic centralism, the concept of horizontal partnership is a novelty introduced by with the EU cohesion policy framework that clashes with the features of their predominant political culture, such as centralisation, inter-institutional mistrust, lack of traditions of cooperation and clientelism. However, the findings presented in the paper also show that the imposition of the EU cohesion policy's cooperative framework spurred gradual development of the partnership culture, albeit to varying extent between the three countries. In fact, the study stresses the multi-faceted nature of EU cohesion policy's impacts by showing that the depth of adjustment varies considerably across the different aspects of partnership and, notably, across the different actors within a region. It presents evidence on both successful cases of internalisation of the partnership approach thanks to social learning processes, and cases where the purposefulness of partnership was undermined by political rivalries, patronage and focus on narrow particular interests. Therefore, the evidence presented in the paper suggests that the 'carrot and stick' approach of EU cohesion policy can be effective in promoting the partnership approach, building trust and nurturing cooperation between the sub-national actors in the Central and Eastern EU member states. At the same time, however, the findings also warn that in some cases partnership can generate perverse effects and lead to sub-optimal use of the Structural Funds.

# DEVELOPING THE EXPERIENCE ECONOMY IN NON-METROPOLITAN REGIONS – CROSS-CLUSTER NETWORKS IN VÄRMLAND

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A common challenge for many companies in the experience economy is that firms are small, struggle with low profits and, particularly in non-metropolitan regions, often are scattered over a large area. These challenges make it different for the firms to find time for accessing new markets and to innovate and engage in product development. An important aspect of product development is the interaction between producer and consumer that drives innovation through new trends expressed through consumer demands. One way of supporting firms in the experience economy is through different types of collaborative bodies such as destination management organisations or cluster organisations. These organisations typically include different actors such as public agencies, local authorities and chambers of commerce in addition to the companies. Public agencies working with local and regional development issues tend to be actively involved in the setting up and managing these organisations both because they can play the role as broker and 'neutral' party in relation to many different competing interests and also because of the importance of a strong experience economy with regards to regional growth. This paper presents a new project that focuses on cross-cluster networking in the Värmland region in Sweden. This non-metropolitan region has a number of strong and established clusters in several export industries supported by cluster organisations such as the IT cluster 'Compare', the cluster of pulp and paper technology 'Paper Province' and 'Steel & Engineering'. In February 2011 a cluster organisation for the experience economy 'Visit Värmland' was established based on earlier collaboration. The project aims at studying and supporting cross-cluster networks between Visit Värmland and other clusters. Two important aspects of the study is firstly to focus on opportunities for firms in the experience economy with regards to product development and accessing new markets through collaborations with the established clusters and secondly to explore knowledge development and learning for both the new and the established clusters through cross-cluster networking. The project involves actors from the clusters and is thereby partly co-produced research. The first aspect of the study is based on the practice of the export firms in the established clusters to involve different types of Värmland experiences in their customer relations. A large number of small and large events are organised every year involving a variety of firms within the experience economy. The scale and scope of these activities are not known. In a first phase of the project a mapping exercise is taking place with regards to these activities and the scope for a development of the experience economy through a more organised cross-cluster networking between 'Visit Värmland' and the established clusters. Can firms in the experience economy tap into this market and through customer-producer interactions with overseas visitors access opportunities to innovate and engage in product development? The second aspect of the study is planned to involve deeper research into the knowledge dynamics of cross-cluster networks e.g. in terms of organisational learning. In what ways can the new cluster 'Visit Värmland' learn from interactions with the established clusters and their ways of working with regards to activities such as business development, innovation, marketing and competence development? In what ways can established clusters learn from a new cluster organisation for example through being exposed to different ways of working and thereby perhaps avoiding getting locked in in established work practices? Cross-cluster networks may provide opportunities for innovative thinking also in terms of organisation development since this type of interaction challenges what is taken for granted in organisational practices. In a third phase of the project we aim to expand the study to comparative research involving cross-cluster working with the experience economy in other regions and countries.

### Gateway I REGIONAL ALUMNI NETWORKS – AN UNTAPPED POTENTIAL TO ATTRACT AND GAIN BRAINS?

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Facing the outflow of highly skilled brains, regions, but especially border regions, need to develop new strategies and instruments to retain and (re)attract qualified employees. For economies depending on innovation and knowledge generation, the brain drain phenomenon can endanger their social and economic development as

well as their sustainability. In order to assure brain gain and even to create brain circulation leading to a winwin-situation, border regions should seize the opportunity and foster cross-border learning and cross-border cooperation possibilities. Therefore, one strategic aim could be the reliance on interdependencies with other regions. A further aim concerns the change of inner regional procedures and interactions. As classic modes of governance are insufficient, attention should be given to new forms of regional arrangements. The responsibilities of both public and private actors can be reassessed and the increasing importance of regional networks can be taken stronger into consideration. Consequently, the question arises if regional networks can support and promote the sustainable regional development and competitiveness, contributing to the issue of brain drain/brain gain. The sub-project BRAND - Border Regions Alumni Network, as part of the INTERREG IV C Mini-Programme 'Brain Flow', founded by the ERDF, addresses both issues. It deals with regional networks as part of new regional interactions and fosters cross-border exchange among five European regions, namely North Rhine-Westphalia (Germany), Hedmark (Norway), Värmland (Sweden), Overijssel (Netherlands), Basel (Switzerland). The project focuses on the possibility to take advantage of regional alumni networks with regard to the attraction of a highly skilled workforce which is indispensable for the development of smart, sustainable and inclusive places (Europe 2020 Strategy). During the last decades, the importance of regional universities grew. In addition to the role as knowledge generators, universities act as employees, innovators and contributors to social capital in terms of cultivation of human resource. Alumni networks as part of regional universities seem to be an untapped potential to attract once migrated highly skilled to their home regions and (in this manner) to increase regional brain gain by regularly maintaining contact with former students(alumni). The paper ratio is to present an inventory of five border regions' alumni networks and to develop an alumni network typology by analyzing them. The outcomes are supposed to respond to the question: Can alumni networks contribute to the (re)attraction of highly skilled workers? If yes, which conditions must be given and do they apply to all or just several border regions with specific requests and profiles? In order to foster crossborder cooperation, good practice examples will be carved out and exchanged among the regions to improve and develop alumni network activities with regard to brain gain.

#### Gateway C

# COMPARING REGIONAL STRATEGIES AND POLICY OPTIONS FOR ADDRESSING THE LACK OF HUMAN CAPITAL

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Despite the economic crisis and increasing unemployment all over Europe, more and more regions develop specific policies to address the lack of human capital (especially highly educated) in their region. Many policy measures have an impact on the stock of human capital in a region. Basically all policies that contribute to the quality of life in a region or to its economic prosperity will influence the availability of human capital. But there is also a category of policies that has the aim explicitly to attract or keep human capital in the region. In other cases general measures have a foreseen influence on the stock of human capital. For instance measures to improve housing or the cultural climate with as a foreseen side effect attracting more higher educated to the region. This paper attempts to categorize and systematize these type of measures based on an overview of polices in six European peripheral regions. It discusses the inventory of these type of measures as part of the sub-project BUTTON - Pushing the right Button, Towards tailored policy measures to attract and retain highly educated workers, a part of the INTERREG IV C Mini-Programme 'Brain Flow', founded by the ERDF. This subproject is focused on delivering tailor made policy options for every region based on an understanding of attraction, retention and expulsion of highly educated people. Based on a broad understanding of the problems in attracting and retaining highly educated workers, and an inventory and elaboration of policy options, the project will produce tailored assessments and policy prescriptions in six European regions, namely Detmold (North Rhine-Westphalia, Germany), Hedmark (Norway), Navarra (Spain), Twente (Overijssel, Netherlands), Arnhem-Nijmegen (Gelderland Netherlands) Nordwestschweiz/ Basel (Switzerland).

#### Gateway I

# BOUNDARIES, BORDERS AND CROSS-BORDER LEANING - INTERREG I - III REFLECTED IN CASE REPORTS.

### Peter De Souza, University College of Hedmark, NORWAY

The problem tentatively approached in this paper is concerned with the nature of the learning sought in crossborder activities - comparing vision and ambition with reported outcomes. The case is focusing on cross-border activities in the framework of the EU INTERREG program I to III. The geographical framework is the so called Innland region of Norway and Sweden. The approach will start out with a discussion on the terms and concepts (borders, boundaries, border regions etc) involved, with consequential references made as to the ambiguities in methodological distinctions. This exercise makes a more clear demarcation possible, when it comes to the relation between the terms and some aspects of geographical reality. After this definitional exercise lightly sprinkled with some methodological implications, the focus will turn to a dissection of what the cross border learning is all about, categorized in preliminary terms of ambition/vision (defined in general program directives and in directives focused in the Swedish-Norwegian context and further reflections from the specific region) and reported results (gathered from a selection of case reports). A preliminary categorization will distinguish educational projects, experience exchange, transfer of working models and, a not to large pile of, unexpected knowledge transfers. The number of cases will be workload dependent. As this part of the study is explorative the primary ambition is to find enough experience described to be able to categorize any eventual findings, hoping the distinguish patterns in order to return later for a more systematic approach where summarized results are identified, even later to find ways and means to contribute to a more conscious policy-orientated management of knowledge exchange and knowledge flows. This discussion will take place in light of a tentative description of the general nature of the Swedish-Norwegian border in historical and functional terms. This in order to make a rough overview of the impact defining uniqueness of the spatial and functional context and, through this, discussing the generalisation of the findings. Complementary to the specific findings on cross-border learning as such, some reflections on border characteristics will be highlighted. The issue of crossborder activity does indicate aspects of the border in terms of technical-physical distinctions and in terms of substantiation and utilization. A crucial point being the dynamism, i.e., seeing the border as a process.

## Gateway UF1 SUSTAINABLE URBAN FRINGES FROM A REGIONAL PERSPECTIVE

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Within the disciplines of city planning, environmental management and regional economic development, urban fringes are getting more and more into the centre of attention given the transformational changes in both urban and rural areas, plus the fact that both areas are increasingly getting interwoven. The urban fringe area is defined as the zone connecting urban and rural areas, there where urban and rural functions and qualities meet and interact. Developments in the urban fringe area are increasingly seen as vital for the environmental, economic and social quality of cities and regions as a whole having both positive and negative effects. The understanding is growing in both academic debates and in practice that urban fringes have huge impacts on the quality of life and opportunities for economic and social development for all groups in society. The question we address in the paper is what role regional cooperation plays in relation to sustainable development in urban fringes. This question is especially salient given the often fragmented governance patterns regarding urban fringes. Urban fringes are prime examples of the complex patterns of overlapping governance and fuzzy boundaries, with diffuse roles of both public and private actors as mentioned in the Call for papers. In our paper we will focus on opportunities for mutual benefit: how regional cooperation can stimulate sustainable development, and how a focus on sustainable development can lead to more regional cooperation and a better performance of a region. The evidence comes partly from the experiences of local and regional authorities in four countries (UK, Flanders, the Netherlands, Germany and Sweden) that are working together in the project Sustainable Urban Fringes (SURF; part of the In-terreg IVB North Sea Region Programme). This project resulted in a valuable set of learning experiences that can contribute to sustainable development in urban fringes and therefore in cities and regions as a whole. In addition to this, other cases in Western Europe were studied where local and regional planning authorities had the ambition to stimulate sustainable development in urban fringes. The paper will first define the concept of a sustainable urban fringe. Next to that, it will describe how authorities and other stakeholders can contribute to sustainable urban fringes, and benefit from the qualities of sustainable urban fringes. The paper, therefore, builds on governance theories as well as notions of sustainable development in a broad sense. The conceptual framework to stimulate sustainable development in urban fringes focuses at creating synergy between different interests and qualities, for instance strengthening environmental and nature values, enhancing the accessibility of rural areas and offering high quality job opportunities. This happens within a participative process, with all stakeholders involved. Empowering these stakeholders is an important aspect in this. Not only the present and local situation is taken into account, but also the expected impact that choices in the Urban Fringe areas have on other areas, nearby or far away, and the expected impact in the future. This is where regional cooperation creates substantial advantages when stake-holders are aiming at sustainable development. Based on this view on sustainable development, two categories of interventions will be discussed in the paper:

• Building broad stakeholder networks and using these stakeholder networks to create cooperation in monitoring, planning, decision making and green space management;

• Develop new approaches to create synergy between economic competitiveness and social and environmental quality and create job opportunities and improve quality of life for all stakeholder groups.

In doing so, we develop multi-actor, multilevel governance approaches that operate from an integral perspective on the role of urban fringes in a regional con-text. The two categories of interventions are considered crucial, in order to apply principles of sustainable development and inclusiveness in mainstream projects. The paper will evaluate the experiences of the authorities, link them with recent theories on sustainable development and governance, and present the lessons from the cases. It ends with a research agenda for further elaboration of the conceptual framework.

## Gateway O1

# NEW FIRM FORMATION AND ITS EFFECT ON EMPLOYMENT GROWTH IN DECLINING REGIONS

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Regional decline of population is likely to occur increasingly in developed countries. Entrepreneurship can play an important role in keeping declining regions vital through job creation. But the way new firm formation exerts its influence on employment growth is not yet evident. Although there is a large and growing body of research on new firm formation and employment, there is still a knowledge gap concerning the regional context new firm formation takes place in. Also, the focus tends to be on growth and the spatial variety in the relation is often neglected. This paper therefore examines the economic consequences of new firm formation on regional development in terms of employment growth. We focus particularly on the context of population decline. We also investigate whether the relationship differs depending the intensity and type of population decline, and by the degree of urbanization. Promoting new firm formation is a policy measure all over the world. Particularly for regions that are declining, new firm formation is often highly prioritized by local governments. We know population decline, when controlling for other aspects, has a negative effect on the formation of firms. But what is the effect of start-ups on regional development in those areas that are facing population decline? New firm formation can contribute direct and indirectly to regional employment. The indirect effects are thought to have a larger impact on the long term, and indirect effects are not per sé positively related to employment growth. In order to establish the impact of new firm formation on employment rates, the paper examines firm dynamics and employment growth retrieved from the LISA database covering the whole of the Netherlands on a municipality level (441 regions). This data is complemented with data on population density, size, growth and decline from the Statistic Netherlands. Key words: Employment growth, population decline, new firm formation, urban and rural regions

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Today, choices are connected to a new logic, based on interaction at the intersection of global brands and local cultures (Thompson and Arsel, 2004; McNeill, 2000). The death of distance claim with its antecedents in the information technology concept of anytime, anywhere learning seems uncontroversial. However, they describe a 'point-to-mass' distribution model of learning overlooking the significance of place and the localization of learning. Knowledge generation is a social process involving extended groups and networks (Brown and Duguid, 2000). The exponential growth of communication threatens to disintegrate into incoherent fragments in everyday life and reminds us that mobility is more than movement, 'it carries with it the burden of meaning' (Cresswell, 2006: 7). Consequently, place borders are subject to competing and contradictory meanings, both material and symbolic (Anderson and O'Dowd, 1999: 593). In spatial policy research, same justifies investigation how humans create centers of meaning (Tuan, 1977) within networked communities to improve cross-border institutional frameworks for guiding multi-level interactive governance. Impelled by technological, social and political forces (Dwyer et al., 2009; Weaver, 2011), the emerging logics are radically changing territorial processes, leading to multiple institutionalization and forms of governance. The resulting paradoxical institutional fragmentation and new arrangements formation in spatial-environmental interactions can be illustrated by an account of the tourism subsystem. It involves complex patterns of multi-level, multi-actor and multi-sectoral challenges which arise as tourists meet with 'others'. In this context, economic institutions and networks of power (Massey and Jess, 1995) govern not only markets, but also social, spatial-environmental and political affairs. Levering media power, they reshape the symbolic meaning of reality. Consequently, developing smart, sustainable and inclusive places (Europe 2020) remains an utopia, if it fails to resolve the lock-in problem (Boschma, 2005) of 'place-specific circuits of power linked to society, economy and the state' (Yüksel et al., 2005). In addition, the political elitist power relationships within European territories impede regional cultures to 'blossom', by favouring global (McGuggenization) and standardization (McNeill, 2000) instead. While nations are ceding their power to the European Union (Anderson 1996), the contours of supranational and regional power are emerging. Membership in international networks, regional groups and institutions empowers people and places to deal directly with their counterparts in other states (Anderson, 1996: 150) thereby bypassing the power of national bodies. In the wake of top-down planning bankruptcy (Caalders, 2003; Richards and Hall, 2000) there is, therefore, an urgent need for redesigning configurations of space and place to accommodate and direct societal development. In an increasingly technology-driven networked world the authorities' decision-making at local/regional, national and supra-national scales tends to be increasingly influenced by mobility issues enabling bodily movement and the connecting of minds via new media. These two dimensions lead to intricate patterns of inclusive and exclusive places, along four spatial dimensions: material space, information space, social space, and mind or symbolic space (Go and Fenema, 2006). Their consequent global dispersion introduces several gaps – distance, socio-cultural, infrastructural – and governance differences. In EU policymaking these have proven complex to bridge, due to the continued rivalry between national institutions. Unlike governance in atomistic markets characterized by monitoring devices and impersonal contractual ties, in rural regions', network governance mechanism resides in social relationships between and among individuals and in social capital enabling trustworthy consultation, collaboration and coordination both in and by networked regions. The Trentino case, located in northern Italy, is framed in the 2008 Central Europe Program (Della Lucia and Martini, 2012; Go et al., 2011), part of the European Project 'Listen to the Voice of Villages' (www.listentothevoiceofvillages.org) and involves networked central European villages in six countries. They depend, increasingly, on tourist flows and the new media allowing for spontaneous, technologymediated interactions of global proportions. Same underscores the significance of developing governance analyses that move beyond earlier territorialized conceptions of the 'urban-rural' binary (Ward and Brown, 2009). The overlapping governance and fuzzy boundary relationships result in competing and contradictory material and symbolic meaning (Anderson and O'Dowd 1999: 593) that complicates rural Trentino stakeholders' decision making. First, governance at the supra-national, national, and local scale is often administratively isolated from one another, resulting in deferring the responsibility to a series of different organizations that often operate without a clear mandate. Second, supply and demand governance is exacerbated by the great variation of tourist demand, whose motives may differ (e.g., health, sports, recreational, cultural, spiritual and business to visiting friends and relatives). Third, tourism represents a political issue, perceived as a rather vulnerable basis for local development (Baerenholdt and Haldrup, 2006), In the overlap of social-cultural, economic and political interactions a co-existence strategy design (Go and Trunfio, 2011) can contribute to an interactive governance system (Kooiman et al., 2008) in which Trentino's strategic networked stakeholders (Warnaby, 2009) engage the Service-Dominant Logic (Vargo and Lush, 2008) for partnership-based learning innovation and social capital development (Inkpen and Tsang, 2005).

#### Gateway G

## REGIONS IN THE KNOWLEDGE ECONOMY: HOW THE CHANGING PATTERN OF JOURNEY-TO-WORK FLOWS IS CREATING A MORE FRAGMENTED REGIONAL IDENTITY IN ENGLAND AND WALES

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This paper examines the effects of socio-economic change on the evolution of functional regions in England and Wales between 1981 and 2001. It looks at how the rapid shift towards the knowledge economy has affected the clustering of industries and the interaction of labour markets for representative industrial sectors and occupational groups. These two streams of research are tied together to get an overview of how functional urban regions are changing. The first part of the analysis is centred upon capturing the shift from manufacturing to services. Spatial clustering patterns of economic activity are identified through measures of agglomeration developed within the field of economic geography. Regional trends are laid out by extracting the clustering distance for a sample of industries across England and Wales and in some of the major city regions. The second part of the analysis is focused on representing the changing nature of local and regional labour networks through journey-to-work flows. The focus of the analysis is the knowledge worker, who is portrayed in current socioeconomic literature as a major player in creating local and regional networks. This part of the analysis assesses the function of the knowledge worker as an agent for local and regional connectivity through an original visualisation of its commuting profile. This profile is then compared to other occupational groups for 1981 and 2001 to determine if there are any distinguishing patterns that emerge supporting the occupation's role in changing interactions within and amongst regions. The two parts of the analysis provide an overview of how recent socio-economic changes have affected the nature and size of economic clusters and the intensity of flows within and between their functional regions. This provides a step forward in disentangling the socio-economic forces behind the growing interdependence between cities and their regions in the knowledge economy. The main result of the first part of the analysis is that the representative industries for manufacturing and services have a contrasting spatial footprint in both census years. The manufacturing sectors are spatially clustered at the local level whereas service employment is evenly distributed across a wide range of distances. Furthermore manufacturing activities have been disassociating themselves from other economic functions and forming independent clusters. The shift towards the service sector is increasing the size of economic activity areas and is fragmenting industrial clusters; leading to a different kind of spatial identity for city regions. The second part of the analysis demonstrates that as the economy has moved towards knowledge based sectors in 2001, the proportion of higher tier occupations within the labour market have increased. This has shifted the market in favour of knowledge workers. Whereas knowledge workers such as 'professionals', who appear at the top of the social hierarchy, have had access to jobs over a wider range of distances, thus expanding local and regional linkages; lower ranking occupations such as 'personal services' were employed at a restricted range of distances within close proximity to their homes. Whereas knowledge workers have been increasing the connectivity within and amongst regions, lower-level occupations have not been able to expand their journey-to-work flows, creating separate labour markets within the same city region. The combination of the two analyses on production and worker location variables yield insight on supply and demand factors in labour flow change across city regions. Although manufacturing and lower ranking jobs maintain the same 'bounded' spatial footprint, the more distributed pattern of service industries is coupled with a versatile occupational group creating a flexible functional region. As the share of manufacturing activity and its labour market decrease within the economy, the 'fuzzy' boundaries of service jobs and higher tier occupations create a more interconnected and flexible functional region; leaving the former locked within its own boundaries. These results are especially relevant in laying out how the knowledge economy in England and Wales has been creating exclusive spatial realities for different segments of the population.

## Gateway M1

# CITIES NETWORKING IN PERIPHERAL CITIES: AN INCLUSIVE TOOL IN THE METROPOLIZATION PROCESS? PERSPECTIVES FROM FRENCH METROPOLITAN COOPERATION MODELS AND EXPERIENCES

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Key words: metropolitan cooperation, governance, intermediate cities, inclusive cities network, metropolization process Context of the research: Since the Second World War and more accurately since the policy called "métropoles d'équilibre" (1964), French government has intended various approaches to govern nonmetropolitan areas and to reduce disparities of French territorial organization, inherited from a long-time period policy planning. In spite of the measures to enhance polycentricism, France remains a very centralized State. While cities are perceived as the engine of innovation and creativity, one can tells that French territorial organization is not adequate anymore to support its position in the global economy. As a response, cooperation between peripheral cities has been perceived as a lever to reach a critical mass, and to achieve both sustainable development and urban competitiveness. Launched in 2004, the "metropolitan cooperation's call for projects" is the latest government initiative to reinforce cities networking. It calls for more co-operations between large and medium sized cities of a same area, in order to develop "metropolitan projects". Main questions: Discussing interactions between places and network governance of urban systems in peripheral areas, the author suggests several questionings: Inter-cities networking in peripheral territories are gathering medium-sized and small cities: are they an inclusive tools for "de-peripheralisation" in the metropolization process? Is the so-called metropolitan cooperation a suitable and innovative response to face the change of urban dynamics and the process of peripheralisation? Paradoxes and limits of this top-down trend are clear: Can good practices regarding local governance emerge from and be renewed by such a top-down initiative? In a context of urban competition, can particular interests of intermediate size and peripheral cities merge in cities network? How do local stakeholders adjust such an initiative to their local conventions and practices? Eight years later, what are the realities and the contents of the initiative? Study case and issues: The paper does not aim to proceed to a comprehensive approach of French peripheral areas and the governance responses to support their integration in the metropolization process. It offers to focus on two "metropolitan cooperation initiatives" on two peripheral territories, on both sides of Paris metropolitan area. On the west side, five cities are gathered in a Loire-Brittany metropolitan area (Angers, Nantes, Saint Nazaire, Rennes, Brest: 2 million inhabitants in 5 urban areas), certificated after the 2004' government call for projects. They attempt to make a better connection between Brittany and Pays de La Loire regions, and to identify common interests for cooperation and to compete at the European scale. Reims region, few years later, has attempted to duplicate metropolitan cooperation model and to adjust it locally. As a result, "G10 area" was created, gathering 10 urban areas and less than 500.000 inhabitants upon 5000 km2 (while Paris Region is 12 million inhabitants upon 1200 km2). In this rural and shrinking region, co-operation between cities is a political response to create new forms of proximity and cooperations, and to reach a critical mass capable of facing the challenges of French competition. Focusing on these very specific territorial contexts, what are the gaps between the territorial shapes of these cooperation areas, the observable spatial dynamics, and the ambition to reach metropolises' critical size? Regarding methodological issues, how to proceed to an efficient social and organization network analysis? What is the effective mobilization of the political actors on the projects? In what extent opening up processes between actors are at work? Are alliances between peripheral cities and their surroundings efficient strategies to play on a larger scale? To what extent these metropolitan co-operations in peripheral areas succeed to open up and to reach a better integration in metropolitan process?

#### Gateway K2

# THE RESISTANCE OF DUTCH REGIONS TO ECONOMIC SHOCKS. MEASURING THE RELEVANCE OF INTERACTIONS AMONG FIRMS AND WORKERS

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Motivation Following the recent financial and economic recession, a growing number of theoretical and empirical studies have begun to explore the resilience or adaptive capacities of regions to economic shocks (Martin, 2012). However, the empirical insights in what affects the resistance of regions for such shocks are still limited. In this paper, we try to quantify regional resilience by looking at the interactions among firms and

people both within and between regions. It is argued that the economic robustness of regions depends on to what extent regions are in a more central position within the network of interregional interactions. The aim of this paper is to obtain a better understanding of the differences in the resistance of Dutch regions to economic shocks, using information on different types of interactions (buyer-supplier relationships, inter-sectoral and inter-regional labour mobility) within and between regions in the Netherlands. Research questions The central question of this paper is: To what extent do the Dutch regions differ in resistance to an economic shock such as the closing down of a large company or a more generic recession? Following the ideas of the smart specialisation policy (McCann and Ortega-Argilés, 2011), the main assumption is that the economic vulnerability or resilience of regions depends on the level of embeddedness, relatedness and connectivity of the region. Each of these elements are assessed for the Dutch regions using information on, respectively, regional input-output relationships, inter-industry labour mobility and inter-regional labour mobility. These different elements are combined in one model that enables us to measure the differences in resilience of the Dutch regions to economic shocks. The model is composed in two steps. First, we answer the question how the regional input-output structure influences the impact of a shock. This analysis provides insights in the regional differences in the impact of the shock. Next, we examine the capacity of each region to absorb the effect of the shock on the regional employment. How likely is it that laid-off workers find a new job without having to move to another region? When companies are forced to closedown, a large number of unemployed workers has to find a new job. If the shock is large enough, it is likely that the sector they are trained to work for is not capable of re-absorbing this excess of labour supply. Workers who lost their jobs may need to make applications for sectors they have not previously worked for or find a new job in the same industry in another region within commuting distance from their home. In other words, both inter-sectoral and inter-regional job mobility should be taken into account to answer that question. Using information on the skill relatedness between industries in the region and commuting distances between regions, we estimate the likelihood that laid-off workers will find a new job after the shock for each region. Data To answer the research question different sources of data will be used. First, an analysis of supply networks serves to comprehend how a shock affects other activities connected by a supplierbuyer relationship. To estimate these effects we use a regional input-output model that has been composed by the Netherlands Environmental Assessment Agency using information from the National Accounts, the sectoral composition of Dutch regions and distribution patterns between regions (PBL, 2011). Second, to measure the inter-sectoral and inter-regional labour mobility we use information from the Social Statistics databases of Statistics Netherlands. We apply the indicator of skill relatedness between industries proposed by Neffke & Henning (forthcoming) to measure the likelihood that laid-off workers will find a new job in another industry in the region and information on commuting distances between municipalities to estimate the likelihood of interregional job mobility. Finally, these three factors together are taken into account to map the resistance of the Netherlands, by sector and by region.

#### Gateway F1

# **ROMANIAN REGIONAL DEVELOPMENT POLICY: JUST A FUNCTIONAL RESPONSE TO THE EU'S COHESION POLICY? EMERGING CHALLENGES**

## Anca Otilia Dodescu, University of Oradea, Faculty of Economics, ROMANIA Lavinia Florentina Chirilã, University of Oradea, Faculty of Economics, ROMANIA

What we aim through the present paper is to respond to the following question: Is the present regional development policy of Romania just a functional response to the cohesion policy of European Union? We also intend to highlight the main challenges and changing directions that regional development policy of Romania has to face in the period 2014-2020. The first part of the paper presents, after a short retrospective into the evolution of regional development policy in Romania, the general frame of the Romanian regional development policy and structural instruments for the period 2007-2013 in the context of the cohesion policy of European Union. It also analyses up to what extent the present regional development policy of Romania was an intrinsic part of economic policy in Romania, which were the relevant political options or the tendencies in the guidance of this policy: towards attaining social or economic objectives, towards using micro - instruments or macro instruments, towards influencing decisions regarding production localisation or changing the income and expenditure level at regional level, etc., which were the coordination procedures used, how efficient was this policy in reducing regional disparities and how modern and European was this policy. The second part of the paper presents the emerging challenges for the future regional development policy of Romania: the new cohesion policy of EU for the period 2014-2020, the imperative "exiting the crisis" and, not the least, "learning from failures". There is a large variety at local and regional level in terms of basic economic activity, resources, production factors, comparative advantages etc., thus impact of economic crisis for local and regional communities is different. Solutions for "exiting the crisis" are beyond the traditional analysis and actions. While the identification of growth opportunities is an ongoing process, promoting entrepreneurship and supporting new, emergent and innovative SMEs has been shown that help the growth and recovery process. We argue for a new regional awareness, for redefining the regional development policy of Romania starting from the neglected potential of endogenous development and taking special attention on key targets such as: SMEs and innovative process, flexibility in the application and combination of policies at national, regional and local level, crosssectorial strategies, mobilization of public - private partnerships etc. The paper presents research results afferent to the post-doctoral research project: "Growth and regional development economic policies. Challenges for Romania in the context of economic-financial crisis and European model integration", carried out in the project "Economic scientific research, reliance of human welfare and development in the European context", financed from the European Social Fund and by the Romanian Government through Sectorial Operational Programme Human Resources Development 2007-2013 (SOP HRD), contract number SOP HRD/89/1.5/S/62988 and afferent to the doctoral research project "Using the specific instruments of regional policy of the European Union for growing economic competitiveness of Romanian development regions", partially supported by the strategic grant POSDRU/CPP107/DMI1.5/S/80272, co-financed by the European Social Fund-Investing in People, within the Sectorial Operational Programme Human Resources Development 2007-2013.

#### Gateway I

# TRANSPORTATION POLICY NETWORKS IN CROSS-BORDER REGIONS. A SOCIAL NETWORK CASE ANALYSIS OF LUXEMBOURG AND THE GREATER REGION

## Sabine Dörry, CEPS/INSTEAD, LUXEMBOURG Antoine Decoville, CEPS/INSTEAD, LUXEMBOURG Christian Lamour, CEPS/INSTEAD, LUXEMBOURG

Despite continuing processes of economic and political integration in the European Union (EU), borders have been proven to be persistent. Politically backed and financially supported by the EU, cross-border regions (CBR) are subject to economic and cultural coalescence. However, the established top-down CB policy network structures do not necessarily lead to the results originally aimed at. Policy networks are supposed to make the proclaimed economic, socio-cultural, and spatial EU integration process work on a local level. Studies on CBR illustrate that there is no single formula to set up successful and accepted governance structures. Such studies further reveal that the necessary re-conceptualization of the political space in CBR currently lacks the empowerment of local (political) actors in the region (Durand & Nelles, 2012). Little is said both about the actual structure and composition of such CB policy networks and the flows of information or the manifestation of power in such networks. Based on an empirical survey, we aim to reveal the complex nature of a specific CB policy network, which - in the case at hand - consists of heterogeneous actors with different functions located in one of the four countries which shape this CBR, namely Belgium, Germany, France, and Luxembourg. With the technique of the social network analysis we will trace such a kind of network, drawing on the example of the policy domain of CB public transportation and illustrating foundational elements of the policy network such as the centrality of actors or the structural holes/cohesion. Our empirical findings lead us to critically examine what Marks and Hooghe (2003) describe as "Type II" governance in CBR. Despite acknowledging the prevailing network of collaborating and competing public and private actors in shifting coalitions, our data reveal the strong intervening presence of at least some of the involved national states in the decision making processes within the Greater Region.

## Gateway D SOCIAL JUSTICE AND HAPPINESS IN SCOTLAND

## Stewart Dunlop, Fraser of Allander Institute, University of Strathclyde, UK

Social Justice and Happiness in Scotland This paper discusses the findings of a recent study on Happiness in Scotland. The research, fieldwork for which was undertaken in September 2011, is a joint collaboration between Oxfam Scotland, the New Economics Foundation (NEF) and the Fraser of Allander Institute at Strathclyde University in Glasgow. The fieldwork collected a wide range of original data including a survey of 1,800 individuals in Scotland, community meetings and focus groups. This data was used to identify key areas valued by people in Scotland. This identified a set of 18 variables, including better health, employment, skills, access to

culture, being part of a community, public safety and public services. These variables were then weighted in order to assess the relative important of each. These weights were then used in conjunction with Scottish-level data to calculate a Happiness Index for Scotland. The Index assesses overall happiness by multiplying the weights by appropriate measures available for Scotland. This method was then used to estimate the change in Happiness between 2007/08 and 2009/10 and to calculate a Happiness Index by areas within Scotland (scores were calculated for all 32 Scottish Local Authority areas). This method was then extended to compare Happiness for Scotland as a whole against deprived areas in Scotland (as defined by the Scottish Government's Index of Multiple Deprivation). A comparison of the scores by variable for Scotland against deprived communities shows that deprived areas perform poorly against a wide set of measures. While economic differences clearly have some effect on Happiness, deprived communities also perform poorly in terms of health, housing, skills, neighbourhood quality, access to green spaces and community spirit. The findings can be used to assess in detail the sort of policy measures that might be involved in closing the gap in Happiness between Scotland and deprive areas in Scotland. For example, a key difference emerging from the research is that the quality of the local neighbourhood is much lower in deprived areas (compared to all Scotland). Health also matters, but the health effect was equally as important as access to a pleasant environment. Positive but less important differences also emerge for access to culture, skills, and the availability of other local amenities. The paper will examine reasons why deprived communities are less happy and suggest appropriate policy response. Stewart Dunlop Fraser of Allander Institute University of Strathclyde Glasgow Scotland Gateway D: Social and environmental justice and inclusive places

### Gateway K

# THE CONCEPT OF SMART SPECIALISATION AND ITS IMPLICATIONS FOR EU COHESION POLICY: KEY ISSUES AND DIFFICULTIES FOR IMPLEMENTATION

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This paper discusses the concept of Smart Specialization and its implications for regional policy making. The concept has assumed an important role in the future Cohesion Policy, being conceived as a tool to enhance competitiveness at both regional and aggregate EU level. Furthermore, as a key aspect of the Innovation Union Flagship, it is considered vital to the success of the EU's 2020 strategy. However, there remain several conceptual issues that need to be addressed including, its novelty compared with existing approaches to Regional Innovation Systems, the placed based dimension and its potential contradiction with other cohesion objectives, relational-outward aspects, governance dilemmas, and the lack of clearly defined outcome indicators. These conceptual issues present problems in operationalising Smart Specialization as a policy concept and this paper will also explore the difficulties local and regional authorities are experiencing in developing smart specialization strategies. This part of the paper is based on discussions with regions during the peer review exercises and conferences organised by the EU's Smart Specialization Platform in the first half of 2012.

#### Gateway M

# PLANNING IN BETWEEN. A CASE STUDY OF THREE SUPRA-LOCAL URBAN PLANS IN CATALONIA

### Pablo Elinbaum, Technical University Catalonia, SPAIN

In the late seventies, after the recovery of democratic institutions, the planning authority is transferred to the Autonomous Government of Catalonia (Generalitat), Spain. Soon after, the incorporation of the Town and Country Planning Act of 1983 (LPT 1983) allows developing supra-municipal plans at different scales. Dur-ing this period local authorities raise urgently the drafting of new municipal urban plans, one of the first ac-tions to meet the inherited deficits in urban services. Thus, during the eighties and nineties, the municipal urban planning became a symbol of democratic policy claim post-dictatorship. It is also an instrument of great popularity –culturally and politically– often opposed to provincial or national planning objectives. In contrast, regional planning remains as a "fuzzy" purpose, distant from society. Regional plans of the LPT 1983 were

postponed until the late nineties. Nowadays, the main paradox of the lack of territorial planning in Catalonia (and Spain) is that it is opposed to a process of urbanization, whose main vector is the integration of the territory. Notorious dynamics of metropolization make the territory increasingly interdependent, so that we cannot explain the evolution of each site separately from the others. This situation results in a disorder of the urban systems, open spaces, infrastructures and equipments. It also increases the lack of coordination among municipalities in the absence of a general framework for planning. The "urbanization of the territory" to which we refer is not a new subject. We can still refer to the early conclusions of Geddes, the lessons of Webber, McHarg, and Buchanan, during the post-war development, or more recently the definition of new urban types as a vindication of the project, or the overcoming of the traditional city. However, despite all the theory, the urban project of the territory is barely implemented by the practice of planning. This emphasizes the opportunity of Supra-local urban plans [Planes directores urbanísticos (PDU)]. PDU are one of the few cases in which the challenges of regional policies could be implemented through urban planning tools. PDU are to overcome the operational scope of orthodox instruments for: • designing the medium sized cities and their urban systems (urban areas) • providing coherence to the conflicting strategies between territorial and urban plans, • narrowing the gap between guidelines and regulations by a physical proposals, and • responding to specific demands through an open content, flexibility, and an ad-hoc methodology. The implementation of this type of plan, almost unknown in Europe, justifies the study of the PDU. The overall objective of this paper is to explore the methodological options of three pioneers PDU through a multiple-case study: the PDU for the Bages, the PDU for Òdena and the PDU for Vic. The selection of the cases is based on four conditions: the temporality (the plans are draft simultaneously, 2002-2008), the subject (the three plans cover the same problem: the project of urban areas), the form (the three urban areas are interconnected, first, within the same region, -the Central Counties of Catalonia- and, secondly, to the Metropolitan Region of Barcelona), and the policy (the three urban areas are "reference areas" of the same Regional Plan, for the Central Counties). The Regional Plan of the Central Counties is based on the three PDU for expanding the comprehensive character of its proposals in each of the three conurbations. Thus, some "reference areas" of the Regional Plan become 'urban planning areas' of the PDU. Therefore, the Territorial Planning Program gives the PDU the role of "link" between regional and urban development, strengthening the cohesion of the planning model. However, the studied cases present three approaches on the same instrument. The plans differ in the methodology and content options, but also in the correlation with the Regional Plan proposals. How the particularities of each urban area -conurbation- affect the methodology of each PDU? What innovations provide these PDU? The crossing of the case studies, according to their respective approaches, raises another specific objective: define the specificity of supra-local urban planning tools. Beyond the impact of the plans, this research is based on the reflection from the practice. In short, we believe the flexibility of the PDU is an opportunity for planning experimentation, but also to adapt the instrument to the territory, not vice versa.

## *Gateway M1* **THE SUSTAINABLE TERRITORY : HOW TO OVERCOME THE CENTER / PERIPHERY VISION ?**

#### Alessandro Elli, University Paris 1, FRANCE

The geometric metaphor of the centre and periphery is often used to describe the spatial contrast between the two basic types of places in a system: the centre which has control and benefits and those affected by peripheral position. Indeed, in a reductive way, that metaphor leads us to consider the territory primarily as a dual system. As a matter of fact, focusing attention on the interrelationships between those two types of entities, that is on the flows of people, goods, capitals, information, decisions.., that approach reduces the complexity of territory both as subject of study and as at analytical approach. However, the territory is by nature a concept with structural complexity due to the large number of components included as well as to the existing interactions between them. Therefore, a new approach based on a background marked by sustainable development helps us to understand how and to what extent the reference system of analysis can evolve the process of perception and representation of the territory and work out new scenarios. That reflexive framework gives us the way to think of and to understand the territory as a complex system, on the articulation between the spheres of economy, society and environment. In that perspective, we ask the following question: what are the methodologies of analysis and possible perspective territorial development exceeding the dichotomy centre / periphery, to move towards a sustainable territorial development? More simply, does the sustainable development contribute to overcome the current dichotomy centre / periphery to move towards a systemical view of the territory? The aim is not to produce utopian models of development, rather it is to understand how the current territories with their actual heritage and capabilities could be transformed and accompanied to a new horizon. In order to respond constructively to those questions, we propose as first (part 1) to make a critical inventory of how the concepts of center and periphery are mobilized by the sciences of the territory. We will wonder about the main theoretical models presented as representations of the land-based logics of power / dependence. Then, (part 2) we will propose a real example concerning a peripheral region of « Bassin Parisien », articulating several different scales of space and registers of information. Through an empirical approach articulating differents methods, we will produce a new territorial sense, to switch the representations of the territory from a locigal center/periphery to a systemic vision. That method will show us a new territorial structures, wich combine a variety of geographical areas, a multitude of social pratices and a variety of frames of collective action matching the ones with the others. Finally, (part 3) proposing a formal action at the regional level will lead us to synthesize upcoming challenges and to identify a possible scenario of sustainable land of tomorrow. That perspective way of working will involve the coordination of actors, through research of a new form of territorial governance and territorial planning approaches.

#### Gateway E

# YOUNG MEN, VICTIMS OF THE RECESSION: THE DYNAMICS OF EMPLOYMENT CHANGES IN RURAL IRELAND

## Patrick Enright, University College Cork, UK Mary O'Shaughnessy, University College Cork, UK

Peripheral rural areas typically face the challenge of a declining population and lack of employment opportunities. As agricultural employment declines the challenge is to diversify the local economy and develop alternative employment opportunities. Peripheral rural areas in Europe often with a weak agricultural sector continue to have higher levels of primary sector employment suggesting a low rate of adjustment and a lack of alternative employment opportunities (SERA 2006). Growth in food, tourism, construction and services can alleviate the employment situation where this is possible. In addition, many farmers have taken up off-farm employment or diversified as a strategy to maintain household income. In this paper recent changes in employment in rural Ireland will be examined; in particular changes in the last decade. While in Ireland a relatively high proportion of the population resides in rural areas, much of the employment opportunities have been located in urban centres. Agricultural employment has declined and with the increasing prevalence of parttime farming, many farmers took up off-farm employment especially from the early 2000s with a significant growth in employment in rural areas associated with an expansion in construction and services. With the recession there has been a significant decline in construction employment and related services in particular. As a result, male unemployment has increased significantly especially for younger males. Many of those affected are farmers that had off-farm employment. In contrast, female unemployment has not risen to the same extent; employment by females in the public sector and services has not been affected to the same extent. The challenge for the future is to generate alternative employment for younger males many with relatively low skill levels.

Gateway J

# ECONOMIC DIVERSIFICATION IN A MULTI-ASSET AND A SINGLE-ASSET TOURISM PLACES: AMSTERDAM AND ANTALYA COMPARED

## Hilal Erkus Ozturk, Akdeniz University, TURKEY Pieter Terhorst, University of Amsterdam, NETHERLANDS

It is well known that tourism is a driver of urban economic growth. Tourism differs from exporting industries, however, in the fact that tourism services are produced and consumed locally which is why they are, contrary to exporting industries, very localized. The fact that both the production and consumption of tourism services are localized makes tourism by definition place bound. Although place boundness does not necessarily imply uniqueness, it offers good opportunities to exploit and to create assets that are difficult to imitate elsewhere, that is to create 'monopolies of place'. The assets on which the competitive advantages of tourist cities are based are highly variegated, and can range from one dominant asset to a broad mix of different assets. The competitive advantage of Antalya and Cancún are predominantly based on sun, sand, and sea, that of Las Vegas and Reno on gambling (and marrying). The competitive advantage of some tourist-historic cities are based on their historical identity only (Bruges, Venice) but that of others on a combination of historical identity and other assets. The competitive advantage of Florence, Siena, and other Tuscan cities is based on a mix of historical identity, beautiful landscape of the surrounding countryside, and high-quality food and wines, and that of

Amsterdam on a mix of historical identity, a highly varied land-use, museums, and a libertarian atmosphere (fun, soft drugs, and sex). And the variety of assets on which the competitive advantage of world cities like New York, London, and Paris is based is even much broader. In general, we cannot say that the competitive advantage of single-asset tourism places is worse than that of multi-asset ones. It is the degree of locational substitutability of its assets that enables a tourism place to keep out of a 'cut-throat' competition, irrespective of being made up of a single asset or a mix of different assets. Yet, in the long term single-asset tourism places seem to be more vulnerable than multi-asset ones. Firstly, single- asset tourism places face, in the words of Fred Hirsch, 'social limits to growth', precisely because their assets are non-reproducible. This leads to an excess pressure of demand that deteriorates the quality of these places. Sure, the pressure of demand can be reduced by exclusionary zoning strategies but they result in such a high prices that only the happy few can make a visit to them. Secondly, single-asset places are more vulnerable to life style differentiation than multi-asset places. Over the last two decades, it has been stressed again and again in tourism literature that the era of fordist masstourism is over now and has been followed up by market differentiation (the growth of niche markets) that goes hand in hand with flexibly specialized production. As in all consumer markets, niche markets in tourism create a feeling of exclusiveness and offers ample opportunities to tourists to distinguish themselves in class- and status position. And ever more tourism entrepreneurs have entered and/or created niche markets in tourism in order to keep out of the price-fighters markets in mass tourism. There is more competition on quality than on price in niche markets and it seems that multi-asset tourism places have better opportunities to diversification in niche markets than single-asset place have. But is it true? This brings us to the theme of our paper. In this paper we want to discuss tourism diversification strategies of tourism entrepreneurs in a single-asset as well as in a multiasset tourism place, namely Antalya and Amsterdam. What is seen in the literature is the two contrary views on tourism growth and economic diversification in cities. While one of them stating that tourism growth creates itself diversification, the other points out that growth of tourism creates more specialization, de-diversification because of growth of tourism pushes up property prices, independent small marginal shops that create diversification is crowded out. Big chains enter to the tourism market leads to de-diversification. In this paper it is doubted whether a high urban tourism growth implies an ever stronger specialization and, therefore, a lockedin process of path dependent urban economic development. So, two cases, Antalya as a case of a single asset tourism city and Amsterdam as a case of multi-asset tourism city are selected. To get a better grip on the mechanisms and processes of diversification, firstly, theoretical discussion on growth, economic diversification and tourism is made. Based on that, categories of diversification in tourism cities are evaluated in detail as areal diversification, diversification through related variety, diversification through unrelated variety. Secondly, case study areas and their economic structure are described. Thirdly, sectors that emerge by tourism are defined. Then, the initiators and the supporters of these sectors will be identified and classified according to their sectoral background such as whether they come from the same sector such as from tourism or not? In conclusion, case study findings on economic diversification of both types of cities will be discussed.

#### Gateway J1

# CREATIVE RECONSTRUCTION: THE EVOLUTION OF THE SCIENCE PARK IN A TRIPLE HELIX INNOVATION REGIME

## Henry Etzkowitz, Stanford University, UK

Innovation is transformed from a relatively simple set of linear and reverse linear processes within industry, extending from research to the market and vice versa, to a non-linear process in the transition to a knowledgebased society. There is a convergence underway among centres, science parks, clusters, and technopoles. In the past, many of these initiatives were relatively isolated from each other with, for example, clusters focusing on business development, and centres on inter-disciplinary academic research. There is a movement toward synthesis as clusters establish university links and Centres become a platform for firm formation. Each of these innovation formats has an element missing that is a special feature of another. Thus, a region with several clusters may lack a coordinating mechanism that is provided by a technopole or high-tech council. A science park that has been open to all technological areas may decide to focus on a few themes, in effect to get involved in cluster building. A university technology transfer office that has focused on licensing intellectual property (IP) to existing forms may extend its activities to include the formation of new firms. The increasing ecological density and inter-relationships among these various innovation formats typically involves a shift from double helix relationships government-university/university-industry to triple helix relationships of university-industrygovernment. The empirical section of this paper will provide a comparative analysis of the transformation of incubator science park and science city models in the US, Sweden, UK and Brazil based upon extensive interviews conducted by the author over the past 3 decades. Schumpeter's thesis of creative destruction, the

demise of mature techno-economic paradigms, is transmuted into a process of "creative reconstruction," integrating technological and organizational elements into holistic configurations.

# Gateway I THE EGTC: "STANDARDISATION" OF CROSS-BORDER INSTITUTIONS?

### Estelle Evrard, University of Luxembourg, LUXEMBOURG

The EGTC (European Grouping for Territorial Cooperation) is the first European legal instrument explicitly established to frame territorial cooperation of sub-national entities. This instrument can be used to manage EU-funded or other projects. As the EGTC tool is defined in the framework of the Cohesion policy, its ultimate aim is to promote and facilitate territorial cooperation in Europe. Against this backdrop, the contribution at hand investigates a potential "standardisation" of cross-border institutions. Firstly, the EGTC tool defines not only a legal framework but also the content of the cross-border cooperation. The EGTC regulation clearly demands certain priorities. This leads to a certain discursive 'mainstreaming' of the concrete individual EGTSs. The paper investigates to what extent this can be seen as standardisation or as a top-down-element. Secondly, the EGTC can be interpreted as a governance instrument to cope with "institutional mismatches". Cross-border spaces often associate partners with very heterogeneous competences. The EGTC is a common platform allowing all partners to be associated despite their different institutional background. To this extent, the EGTC can be considered as a transnational element in cross-border governance.

### Gateway G1

# SMART TRANSITION TO RENEWABLE ENERGIES? CITY-REGIONAL COLLABORATION IN GREATER MANCHESTER

## Fabian Faller, University of Luxembourg, LUXEMBOURG

Making the transition to renewable, low carbon forms of energy could be the defining question of our times. Especially for complex problems like energy supply the regional scale and new forms of control, coordination and cooperation - subsumed under the term regional governance - are widely discussed both in politics (e.g. G8 conferences, Climate Summits etc.) and academia. The turn from conventional to renewable energies is one major topic of discussion. For this process of change regional governance can be seen as the best way to initiate it With the help of a case study conducted in Greater Manchester, UK, the article concentrates on two points: (1) the development of regional governance arrangements in the light of a low-carbon agenda as mixture of path-dependent bottom-up and top-down approaches and (2) the impacts of specific constellations for regional energy development that include institutional rules, strategic behaviour of actors and strategic discourses. For the analysis of these aspects, the concept of Actor-Centred Institutionalism offers a framework to investigate the two most important dimensions: Institutions and Actors. Institutions build the framework for actors, their constellations and modes of interactions. Actors influence the constellation, which builds the ground for modes of interaction. Interactions lead to decisions, which, after implementation, modify the situation, in which actors work and that influence the actors. This circular correlation is reflected by Wiechmann's model for strategy development analysis. Contexts of decisions, strategic discourses, and induced and autonomous strategic behaviours of actors are fundamental to his approach. Hence, within this model it is possible to analyse preconditions for the development of a strategy and deal with the question of its (attributed) importance. In the paper I analyse in a first step the evolution of a governance arrangement for energy: starting in the 1970s with the first intercommunal City Council, via the 1990s collaborations for economic development, regeneration and revitalisation policies, reactions to the IRA bomb attack of 1996 and the bid for Olympic Summer Games 2000, to the current institutionalisations of regional governance with a special focus on renewable energy under the umbrella of a Combined Authority. In a second step I will present findings from a qualitative research. There, I focus impacts of specific actor constellations and institutional environments for the regional energy strategy. Therefore, the analysis is threefold: firstly, institutional rules for the mutual work on a regional energy strategy, secondly, strategic behaviours of actors as 'mirror' for impacts of the regional governance, and thirdly, the strategic discourse within the region are reflected. The article closes with lessons learned from the studied case. Even though historic circumstances have been very important factors, several elements for the development of an energy strategy in GM can be highlighted - with regard to contexts of strategic decision-making and the role of regional institutions, organisations and actors:

- o a mutual view on development problems;
- o a shared vision for the region;
- o a commonly developed regional strategy;
- o an awareness of the need for coordination and cooperation among different policy levels;

o a clear structure for development issues and systematic institutionalizations of and rules for, e.g. cooperation, negotiations, or monetary concerns. The paper shows that city-regional collaboration can accelerate renewable energies' adoption and help to prepare its local implementation.

## *Gateway G1* IS THERE SUCH THING AS SPONTANEOUS SMART GROWTH? EVIDENCE FROM LIMA, PERU

## Ana Maria Fernandez Maldonado, Delft University of Technology, NETHERLANDS

As many other Latin American cities, Lima, the capital of Peru grew explosively and horizontally during a period of high demographic growth and industrial expansion (1950s-1970s), in a process which transformed the country from an eminently rural into an eminently urban country in few decades. The spatial consequence of this rapid and unplanned development was a huge horizontal expansion and an urban structure characterized by a centre-periphery pattern, which at the same time represented a clear social and spatial divide between the 'formal' and 'informal' parts of the city. Since the 1990s, however, changing political, demographic, social and economic issues have drastically transformed the urban scene. New housing policies, positive national economic trends, increased availability of credits and a high housing demand have led to a construction boom. Due to less available land and modification of lifestyles, two important urban trends have been modified. Instead of onefamily houses, the new homes are now apartments in multi-storey buildings. Instead of suburban homes, the preferred locations have been the central areas of the city, which are growing vertically in a process that has been called a 'return to the centre'. Indeed, the idea of revitalizing the city centre by filling it up with new social housing is becoming increasing popular in the large Latin American cities, among others, due to the problems associated with long commuter trips for low-income population groups. However, the strong intensification of land use occurring in Lima has been hardly envisioned in the current urban policies, and as such it may be considered as 'spontaneous' or unplanned as the informal settlement of lower-income population groups in the periphery. It is generally considered that a more compact and denser type of urban development cannot be achieved in a spontaneous way. On the contrary, the strive for smarter, more sustainable and lively places requires a careful process of spatial planning to be able to incorporate higher densities and added functions into the existing conditions and trends of urban development within a city. The question that arises is: up to what extent are the urban processes occurring in Lima enabling a smart/sustainable type of metropolitan growth? The proposed paper explores this issue, by describing Lima's recent spatial processes and positioning them within the recent development trends of Latin American cities. The results show that if the current urban trends are more efficiently and co-ordinately regulated at metropolitan level, they may lead to a more sustainable and compact growth. There are, however, many planning issues that have to be resolved to be able to get to that situation.

#### Gateway L

# WE' AND 'OTHERS' IN REGIONS WITH PREVAILING RECREATIONAL FUNCTION IN CZECHIA: A BARRIER OR AN IMPULSE OF LOCAL DEVELOPMENT?

## Dana Fialova, Charles University In Prague, CZECH REPUBLIC Pavel Chromy, Charles University In Prague, CZECH REPUBLIC

Low activity and limited ability of activation of local communities represent one of the issues of regional development of many rural and peripheral regions in Czechia. In regions with significant recreational function characterised by a higher concentration of houses for individual recreation (in Czechia they represent 20 % of all dwellings) a local community is formed not only of traditional agents – residents, self-governance representatives, businessmen, civic associations – but also the owners and users of second housing buildings (cabins and cottages). The tension between residents and recreants (the tension "we" versus "others") has been considered for a long time one of the problems of activation and use of endogenous potential of development. Among others due to the fact that both groups have different ideas of using, function and future development of the territory; their regional identity, the process of its forming and reproduction differ. The contribution presents

the results of the research on regional identities i.e. the field inquiry in 8 model areas of various types with significant recreational function in Czechia (questionnaires and conducted interviews with about 900 respondents). The research was carried out in 2010 and 2011. The research has proved that relations as among residents, as among recreants, as between recreants and residents are not conflicting and even not as tight as presumed. The respondents, only with some exceptions, express satisfaction with mutual coexistence in the territory, with neighbourly relations, they perceive positively common involvement into a social life in the locality, municipality, (micro)region. The revealed interest of not only recreants but also residents in integration of recreants into the activities of a local self-government (which is of course legislatively not possible for the time being) has been surprising. Similarly nearly the identical rate of regional identity of recreants and residents with the locality, municipality, (micro)region has been shown. The research has also proved differences in the respondents' sensitivity to problems in the territory. While residents perceive primarily economic problems typical for economically weak rural areas (lack of economic activities and job offers), recreants then perceive problems of ecological and environmental characters (loading, pollution, i.e. the landscape degradation, natural risks). Representatives of local self-government and businessmen in tourism perceive then the problems connected to infrastructure availability in the territory, to development and impact of tourism and intensity of social life in the territory. It is evident, that the sense of belonging to the locality is significant as for residents as for recreants. Endogenous potential for development in the territory exists. The problem of possibilities of its activation (ability and willingness of local communities to activate for the benefit of development) still remains.

### Gateway A1 SPATIAL JUSTICE: TOOLS AND RULES

## Johannes Fiedler, TU Braunschweig, GERMANY

Based on the North American critical space theory, the Institute of Urban design at TU Braunschweig (Germany) has undertaken a research into the European relevance of the Spatial Justice approach. Since mid-2010 a variety of cases of perceived spatial injustice – spread across all scales and many counties has been surveyed and discussed. From these cases and with reference to comparable situations elsewhere, a set of urban planning and design rules and tools is continuously being deducted. According to the understanding of "justice" as a condition to guarantee a good handling of future, unknown situations – as formulated by John Rawls – the proposed rules and tools are of unspecific character – do not relate to any specific place or culture. In the paper, a number of problems on the regional scale - such as privatization of open spaces, erosion of public access grids, monofunctionality - is addressed and the proposed tools are presented.

### Gateway G

## CREATING SUSTAINABLE COMMUNITIES IN A 'GROWTH AREA' : IDENTIFYING TENSIONS BETWEEN SUB-REGIONAL POLICY, SUB-REGIONAL GOVERNANCE, AND WIDER MARKET APPETITES

## Martin Field, University of Northampton, UK Allan Cochrane, Open University, UK Bob Colenutt, University of Northampton, UK

The South-East Midlands sub-region was identified in English government policy as the largest 'growth area' under the Sustainable Communities Plan implemented from 2000. This identified house-building' as a fundamental driver of new sustainable residential development across Northamptonshire, Milton Keynes, Luton, Bedford and Aylesbury Vale, and a series of strategic targets for housing and community growth were constructed through the adoption of central, regional and local planning and development policies. Such policy development has not to date been mirrored in any sub-regional governance that could champion these policies and implement the level of growth, infrastructure provision, and 'sustainability' sought across the sub-region. With the downturn in wider economic conditions experienced since 2007, the disparity between policy aspirations and house-building practice has become ever more pronounced, with a corresponding gulf developing between different sets of interests for any balanced or 'SMART' growth to become embedded in the sub-region. This paper draws from work underway in ESRC-funded research to examine the kinds of policy identified to drive the creation of sustainable communities across the South-East Midlands sub-region. Whilst individual local authorities in the sub-region have developed a range of subtle interpretations of how

development and 'growth' might assist longer-term sustainability, the paper notes a lack of political or governance structures - notwithstanding the recently constructed Local Economic Partnership - that could help secure this across local authority boundaries. The paper identifies different government aspirations for what new housing development might deliver at both macro-economic and micro-neighbourhood levels, but also notes the tensions and conflicting aspirations of the UK's private sector house-building interests, and their readiness to challenge policy demands. The manner in which the UK house-building and supply is influenced by a discrete number of such private development bodies is therefore examined to ascertain what that bodes for future policy attempts to stimulate any change in house-building delivery. The conclusion is drawn that there is a clear confusion at local and community levels for what further house-building might offer to communities in the future. The paper finally notes the lack of discernable means to identify 'sustainability' within what development has taken place in the South-East Midlands area to date, and the argument is made that the championing of any 'more' sustainable practices must be able demonstrate how that impacts upon the real living standards of households and communities.

## *Gateway K2* **RURAL RENAISSANCE: AN INTEGRAL COMPONENT OF REGIONAL ECONOMIC RESILIENCE**

### Andrew Fieldsend, Research Institute of Agricultural Economics, HUNGARY

The 'city regions' approach to regional development assumes that larger urban sub-regions, cities and their hinterlands will disproportionately drive economic growth. Rural areas within these regions would be expected to benefit and indeed many 'accessible' rural areas in the European Union (EU) are zones of growth. However, there are a number of a priori concerns about this approach, for example: '

If implemented wrongly, this urban-focused approach can push knowledge-based employment into the towns and neglect the potential economic contribution of rural areas. Indeed it could contribute to their economic and social decline as funding is disproportionately targeted at urban centres; '

In many parts of the EU, furthermore, rural areas are not part of a city region and in many remote areas population levels and economic activity are declining. In fact, the evidence of significant urban-rural 'trickle down' benefits is both limited and open to misinterpretation. Economic prosperity of a territory is strongly determined by employment parameters such as employment rate. Several non-sector specific factors, such as those discussed below, are either the direct consequence of, or are influenced by, urban-rural relationships, and in turn can affect employment (and economic prosperity) in rural areas.

The EU Framework 7 project 'RuralJobs' (www.ruraljobs.org) carried out case study area research in eight contrasting rural territories in Bulgaria, France, Hungary, Romania and the UK that was designed to identify the potential for new sources of employment in rural areas. Opportunities for rural job creation (and some Threats to existing jobs) in each territory were assessed in the context of the territory's Strengths and Weaknesses that might influence the potential for rural job creation. It concluded that 'natural capital' strongly characterises the profile of rural employment and underpins the central contribution of rural areas to the functioning of the regional economy. Creating rural jobs and stimulating rural in-migration can be termed 'Rural Renaissance'. This is fundamentally different from counter-urbanisation in that the rural area is the place of both residence and economic activity.

Notwithstanding the diversity of the case study areas, a number of general conclusions about the impacts of nonsector specific factors on rural employment can be drawn. Commuting and migration flows are complex and are affected by a number of different driving forces, such as young people seeking education and training, people seeking jobs, and people (including retirees) seeking a better 'quality of life' in rural areas. Thus demographic trends can both be a consequence of (out-migration owing to lack of jobs) or driver of (in-migrants constituting new markets) of rural job and employment trends. The potential for rural job creation is strongly influenced by the levels of entrepreneurship, innovation, skills, business support and training in the territory. These tend to be lower in rural areas, in part owing to the lower population densities which, for example, impede the delivery of education and skills training.

Most, if not all, regions are composed both of urban and rural localities and the topic of economic resilience is especially relevant to rural localities which can often be dependent on only a few sectors, notably agriculture, but also others such as tourism and mining. Where this is the case, not just the ability of the local economy to recover from a shock but also its degree of resistance to the shock in the first place is compromised. In turn, this can reduce the performance of the region as a whole.

Regional policies that, via a territorial approach, address issues such as rural entrepreneurship, innovation, skills, business support and training can help to stimulate job creation in the sectors most appropriate to any particular locality, and in turn strengthen regional economic resilience. By mobilising the opportunities provided by natural capital, rural areas can be part of a smart, sustainable and inclusive regional economy delivering high levels of employment, productivity and social cohesion in line with the priorities of Europe 2020.

#### Gateway O

## COMPETITIVENESS AND POTENTIAL IN SPAS AND HEALTH RESORTS IN SOME CENTRAL EUROPEAN REGIONS (CONCLUSIONS FROM ON-GOING RESEARCH IN SOUTH TRANSDANUBIA, HUNGARY)

## Alexandra Flink, University of Pécs, HUNGARY Márta Bakucz, University of Pécs, HUNGARY

The growing significance of what we term health-, spa- or thermal-tourism needs no further debate, but a glance at the map of Hungary showing the spread of thermal waters across the country is revealing: accessible thermal waters lie below 80% of the surface. Optimal development potential (in this grossly over-centralised country) fortunately lies almost exclusively in peripheral and more remote areas, meeting the pressing need for economic activity to combat regional disparities. The author's 'home region' of South Transdanubia is a prime example. The Region had prioritised the sector due to its significant natural resources, but earlier investment was uncoordinated, fragmented and lacking in innovation. Cooperation is not a Hungarian virtue. The attractiveness of a few resourceful spas contrasts with relics of the socialist era - with old-fashioned facilities unchanged for years. The visible results in the early days of the century showed no more than modest improvement. Thereafter, both before and during the current 2007-2013 planning period (including the pre-Accession period) national and EU funding for the development of accommodation and baths supported numerous Hungarian projects. Accommodation-related projects benefited most, and a relatively wide range of businesses were aided. As a result, the accommodation field should be the first to impact on the local economy, due to increasing visitornights, tourist tax revenue, improving employment statistics and in general income arising from the demand for labour for primary construction and for later operating activity. Briefly, the results to date of this phase are quite encouraging and much of the investment well-directed from the standpoint of a well-balanced development of the Region. A generally accepted definition of health tourism is still to be made, but, in East Central Europe, health tourism and wellness tourism are usually taken as one single comprehensive concept. This relates to a field of tourism where the primary motivation of tourists is to improve and/or preserve their health, and in which, for the sake of their cure or for prophylactic purposes, they also use health tourism services during their stay at the destination. However, the development potential is concentrated on destinations with medicinal and thermal waters - whose potential is outstandingly high in Hungary by international standards. In 2007, the year of the creation of the Hungarian National Health Tourism Strategy, Hungary had no fewer than 1,372 thermal springs, 197 of which provided recognised medicinal water. A large number of settlements (385 villages and towns) operated baths with thermal or medicinal water, and 65 of these were officially recognised as medicinal spas. We do, however, need to rationalise our examination of the sector in this region if we are to give some credible concept for economic regeneration. South Transdanubia has a very wide distribution of spa and thermal water sources - as has most of the country - and we selected this Region (among the 20 weakest in terms of GDP per capita in the EU) for our purpose with an eye to a comparison with a neighbouring but non-Hungarian region. This is the Austrian province (Land) of Burgenland, which in recent years has shown an impressive level of development of high-quality tourism in this field. The so-called 'Thermenland' (admittedly a little nearer to affluent West European markets) is clearly a best-practice example for our region. At the end of this paper we summarise the issues which should help South Transdanubia to emulate the Burgenland in terms of competitiveness, or perhaps our neighbouring region West Transdanubia, where the great majority of Hungary's formally recognised (authenticated) spas are situated. Since the turn of the millennium this is the sector of tourism where most major developments have occurred and where the widest range of future possibilities can be seen both in terms of the spatial dimension and forms of utilisation. The number of settlements included in the regional survey includes a number which already have a functioning spa, settlements currently active in developing a spa and others which are still involved in planning.

## Gateway H1

# COMPLEXITY AND PREDICTION RATIONALITY AND PREDICTABILITY IN PLANNING THE SELF-ORGANIZED CITY

## Claudiu Forgaci, Delft University of Technology, NETHERLANDS

Cities might be regarded as complex systems which at a certain degree of scale start to show traces of selforganization. As Juval Portugali describes it, one of the main characteristics of an open and complex system is that it "self-organizes its internal structure independent of external causes" (Portugali, 1997). Moreover, by selforganizing cities we understand that beyond the whole apparatus of control and planning, there seems to be a subconscious, collective, global way of things to find their place and use in the society, in the city. But are there ways to fully understand, to accurately measure this? What is the role of the planner in this newly defined system? There has been an increased interest towards this subject in the last few decades resulting in several attempts to link theories of complexity, already developed in the hard sciences, with planning theory. But there's more than (re)quantifying the city by the means of these new theories (apparently an almost impossible task). One of the first steps might be to understand the conceptual side of complexity. Thus, the aim of this paper is to explore new ways of thinking, to avoid misinterpretation and prove that complexity thinking has a positive role to play in the planning process. In order to support this argument, the paper concentrates on a brief description of chaos theory applied to the configuration of the city in Portugali's (1997, 2011) view and de Roo's (2010) illustrated classification of planning rationalities related to urban complexity. Further, both perspectives are confronted with the issue of predictability and illustrated with an overlapped interpretation of their diagrams. Based on this illustration, we can finally prove the connection between the trends represented by the two authors mentioned above: the scientific description of self-organized urban configuration and the conceptual approach towards planning rationality, both triggered by the issue of complexity. As a final reflection, we might wonder if planning is just a tool to accelerate a certain state of (self)organization of the city or it might actually upgrade and be a part of it, thus become conscious? I think that the answer is affirmative for both.

#### Gateway F

# REAL COHESION AS A CONDITION OF ENTRY TO ECONOMIC AND MONETARY UNION IN PERIPHERIES OF THE EUROPEAN UNION AFTER FINANCIAL CRISIS

### **Balazs Gyorgy Forman, Corvinus University of Budapest, HUNGARY**

A Theory of Optimum Currency Areas can know the area of economic and monetary union to adapt to asymmetric economic crises can be by budgetary transfers and or research and development in each countries and regions. In the optimum currency area, the foreign trade are between in legal to each other independent corporations between the member states. The theory did not calculate with a multinational companies and consequences and effects of its operate.

The theory assumed indirectly the all member states of optimum currency were able to adapt by R+D and investments of its own corporations. Can true conditions in peripheral countries, or cannot?

Attention of decision makers avoid to fact that the medium level territorial public administration and local governments are not able to its work. The causes are differentiated:

- Fragmentation of local governments
- Demography: permanently declining population.
- Spatial: increasing spatial differences among settlements.

- Technology: in case of some task of local governments changed the technology (environmental management).

- Finance: deciding question how can finance the local governments that will not raise spatial differences.

- How can we interpret the concept of subsidiary?

# Dirk Fornahl, University of Bremen, GERMANY Dominik Santner, University of Bremen GERMANY

The interplay of innovation and space has been one of the most central topics in economic geography and regional economy in the last decades. Ample research has been done on the role of different proximity measures and their influence on innovation. Cluster theories discuss the role of localized networks in specialized regional economies. However, most of these theories are of a static nature. Evolutionary aspects have been included just recently. Cluster life cycle approaches try to retrace characteristics of cluster evolution and try to distinguish them from the industry life cycle. Positive and negative shocks and triggers are seen as important drivers of cluster change. The paper aims at addressing three core topics: First, how do network relations as one important mean of knowledge transfer and of successful clusters develop over the course of the life cycle. This includes the developments of the general structure of the nationwide networks and differences between the technological cases, the average geographical distance of the linkages, the balance between internal and external linkages as well as the formation of high concentrations of regional linkages as an indicator for regional industrial clusters. Changes in network structures are going to be identified by the application of social network analysis methods. Second, we want to employ the crash of the dot.com bubble in 2001 as a natural experiment of how R&D networks react to such external shocks. In which technological case can a change in the structural characteristics of the network be observed after the shock? Which regions are better able to cope with such shocks? Third, we will examine which characteristics of the regions and of the individual actors lead to the emergence of new links as well as to the removal of links at different points in time by multiple regression methods. Again especially we focus on the change after the burst of the dot.com bubble. Conclusions with respect to the development of regional clusters and the assumed clusters life cycle will be drawn. We focus on the German ICT, photovoltaic and biotechnology sector as these industries have been highly subsidized in the past and, thus, are well represented by subsidized R&D networks. Additionally, we expect that all three industries were affected by the crash of the dot.com bubble because they all rely on high financial investments and many firms are listed at the stock exchange. Our analysis focuses on subsidized R&D networks. For all three technological cases, it can be assumed that such networks mirror the general network interactions of the actors quite well, since all these cases rely strongly on product innovations based upon R&D activities. Even if it cannot be automatically reasoned that subsidy grants always lead to innovations and furthermore for sure not all innovations are the result of subsidized projects, R&D subsidies are an important monetary base for research in new technologies and are likely to mirror the overall technological activities. The database we employ contains all projects subsidized by five German federal ministries since the early 1970's and gives detailed information on the project like theme, sum of grants, subsidized organizations, place and thematic category of the project. As it gives information on all subsidized partners of a project R&D networks can be drawn from the data.

## Gateway K1

## NETWORK MANAGEMENT OF REGIONAL CLUSTERS – A DIFFERENTIATED APPROACH

## Jens Kristian Fosse, Bergen University College, NORWAY Roger Normann, Agder Research/University of Agder, NORWAY

Some of the consequences of economic globalization is a renewed and increased focus on and demand for effective innovation policies. Even though the European Commission recognizes the importance of skilful management of cluster networks in order to succeed with a broad-based innovation policy, they also stress that the skills and professionalism of cluster managers have not been properly recognized. This point has on a much broader basis been recognized in the emerging public administration subfield of network governance. This paper asks if there are some cluster characteristics that are more important than others in terms of identifying effective cluster management practices. The paper builds on data from 12 cluster projects in southwest Norway that are different with respect to size, institutionalization, technology, and maturity.

## Eva G.Fekete, University of Miskolc, HUNGARY

The aims of our empirical research project were to understand processes going in rural areas and exploration of conditions of rural development policies. We focused on three post-modern values like environmental sustainability, cultural determination and social participation. Tools to indentify dominant values of local communities were developed and using these tools we verified that the relation between a local society and post modern values were various due to the stage of economic development and the function of external relationships. Elements of post-modern culture were presented; mainly affected by external effects – in open local societies. Whereas in closed local societies the sustained elements of traditional culture gave basis to post-modernisation. Comparing cultural characteristics, local resources and institutional structures of both societies helped understanding differences in results of rural development strategies. Differences of acceptance of possible rural development directions and the motivations to participate within them as well as the stock of local resources and the capability to utilize them reflect the role of motivation and culture intermediation as well as the reason of a differentiated rural development policy based on a new interpretation of economic competition.

#### Gateway M2

## SPATIAL PLANNING REORIENTATIONS AND PLANNING SYSTEM SHIFTS IN DENMARK: FROM REGIONAL SPATIAL PLANNING TO MUNICIPAL COMPREHENSIVE PLANNING?

## Daniel Galland, Aalborg University, DENMARK Stig Enemark, Aalborg University, DENMARK

Spatial planning in Denmark has been increasingly subjected to profound reorientations within the course of the past two or three decades. Its former 'comprehensive integrated' character, which harmonised planning policies and institutional practices occurring within and across different administrative levels has long since been at stake. More recently, the effects of an administrative reform that abolished the regional level and significantly changed the geographies of inter-governmental arrangements within the country, have significantly transformed the orientation, structure and functioning of planning in Denmark. Amongst the many implications of such reform, national and regional planning policies have become rather spaceless, with little or no thematic or conceptual coherence amongst emerging plans and strategies. At the same time, the conception of Danish planning has been increasingly challenged and superseded by growth-oriented and competitiveness rationalities. Planning tasks and responsibilities have been re-scaled and new governance structures that transect the former territorial synchrony have emerged within and across different administrative levels. The above shifts have not only modified the functioning of the Danish planning system but also diminished the clout exerted by former institutional practices. This alluded fragmentation and differentiation of spatial planning imply that neither its scope nor its performance can be any longer seized from the perspective of a self-contained system per se. Rather, to understand what spatial planning currently entails, there is a need to examine the rationales behind evolving planning policy orientations and spatial plans as well as the emerging institutional practices and capacities entrenched within the altered structures of the national planning system. Until recently, only limited attention has been paid to the issue of how spatial planning becomes reoriented in the context of an evolving planning system per se, particularly at the higher administrative levels embedded within it. Research regarding planning shifts during the late 1990s and early 2000s has been primarily confined to emerging governance aspects regarding the re-emergence of 'strategic' spatial planning at the level of the city or city-region (cf. e.g. Healey et al., 1997; Salet & Faludi, 2000; Albrechts et al., 2003). More recently, research attention concerned with planning changes has shifted towards emerging spatial strategy making processes and new forms of governance, although a significant part of it seems to have taken place in the context of devolution in the UK and under the influence of New Labour (cf. e.g. Haughton et al., 2010; Allmendinger & Haughton, 2007; Davoudi & Strange, 2009; Nadin, 2007; Cowell & Owens, 2006, 2010; Alden, 2006; Pearce & Ayres, 2006; Tewdwr-Jones & Allmendinger, 2006; Glasson & Marshall 2007; Marshall, 2008; Allmendinger & Haughton, 2009, 2010). Planning research from the perspective of system reorientations undertaken elsewhere in Europe is thereby an appealing object of investigation. In contributing to fill in the gap, this paper attempts to generate an understanding aimed at clarifying how spatial planning is reoriented in a Nordic context. In doing so, the fundamental objective is to discuss the transformation of spatial planning policies and practices at national and regional levels in Denmark and the resulting responsibilities for the local (municipal) level to provide adequate spatial solutions to complex cross-sectoral problems. The paper builds on the premise that the reorientations of

spatial planning could be understood in light of: (a) the evolving conception of spatial planning; (b) the shifting roles of spatial planning in handling spatial development and economic growth; and (c) the changing governance structures embedded in spatial planning practices at different administrative levels.

## Gateway L IDENTITY, CITY CONSUMPTION AND CULTURAL PRODUCTION: REBRANDING BARCELONA AND MONTRÉAL

#### Joan Ganau, University of Lleida, SPAIN

In recent times culture and arts have gained an increasing importance in urban policies both in Europe and in North America. This paper aims to analyze how this greater significance of culture in cities is deeply related with changes in urban economy and competence between cities. The period of time analyzed is the years between the eighties and the present time, and the analysis is done by comparing two study cases: Barcelona and Montréal which represent quite well this evolution. Both cities share similar characteristics: both are second cities, both having around four million inhabitants in their metropolitan areas and both have centered their efforts to enhance their arts and culture during recent years. And, probably the most important similarities: Barcelona is the capital of Catalonia (Spain) and Montréal the main city of Québec (Canada). Two regions with a own languages and an important sense of identity, different front the dominant Spanish and English language and culture in their countries. To carry out the research, a literature and statistical data review has been performed. In addition to that, a series of profound interviews have been carried out to know the opinion of relevant representatives from the cultural, tourist and economical areas. This has allowed obtaining relevant information to achieve the conclusions. This research follows a long tradition in urban studies about the relationship between city, image and culture. It is based in the works made by F. Bianchini or S. Zukin about the use of culture in the processes of urban regeneration; by R. Paddison or S. Ward about the use of the city image in the processes of economic urban development; by S. Fainstein, D. Judd or D. Harvey about the city as a place of consume and leisure; and by C. Landry, R. Florida or A. Markusen about creative economy and cities. Main conclusions An interpretative scheme has been created from the analysis of the relationship between the use of culture by the cities, competitivity and the changes in economical strategies. Different types of competence between cities can be described: - Competition for investment (80's). Resulting from the industrial crisis of the seventies and the need of cities and regions to attract new industries. - Competition for consumers (90's). Since the city is perceived as a product to be consumed. - Competition for creative people (00's). Linked to creative economy and the need to innovate and produce new products. Is not about attracting new enterprises anymore, it is about attracting innovative people. - Economic crisis (10's). Searching for new ways to solve the structural economic problems. New challenges for achieving competitiveness This scheme, which has to be contrasted with other cases, adapts perfectly to the analyzed cities. While Barcelona remains still mainly a "consumption city", Montréal has combined its cultural shift with the production of innovative articles to export. Barcelona has made big efforts to become a "creative city", but has been its successful image as a city to be consumed what has made more difficult to consolidate a structure of innovative and creative industries. Meanwhile, Montréal, with an intense cultural production needs to brand a new image to promote itself as a vibrant city.

## Gateway G THE EMERGENCE OF MEDIUM SIZED CITY POLYCENTRIC REGIONS: THE CASE OF CENTRAL MEXICO

## Diana Garcia, Delft University of Technology, NETHERLANDS Marcelo Sanchez, Delft University of Technology, NETHERLANDS

The spatial regional development in Mexico until thirty years ago was characterized only by the predominance of metropolitan regions formed around a large city (Mexico City, Guadalajara and Monterrey). In the last two decades, medium-sized cities have steadily grown at a more rapid pace than the dominant city agglomerations creating an ongoing spatial restructuring process where economic and productive activities are relocating to diverse locations and generating different polycentric regional configurations. The emergence of polycentric regions composed by medium size cities in Mexico reveals that new advantages come with them like, an improved economic performance and increased infrastructure network that could lead to a more balanced national-regional system. On the other hand, some challenges are identified, as the need to prevent the danger of

a new hierarchy and further patterns of economic and social exclusion, as well the need of providing highly accessible conditions at all scales. Based on the potential opportunities given by the emerging regional arrangement for the construction of a polycentric system, a special focus will be given to the ones integrated by intermediate cities because of: (1) the major impact on this regions on urbanization processes as a result of their fast pace of growth and function agglomeration, (2) their dimension and scale that facilitates the implementation of more successful planning strategies, (3) the potential to integrate their growth along transport infrastructure to provide access major economic and social development. This paper examines the configuration of polycentric regions in Central area of Mexico. In order to understand its potential, first an identification and categorization of urban polycentrism will be developed based on their morphological characteristics, relation between the urban areas, spatial planning (policies), governance structure and transport infrastructure.

## Gateway C

## HUMAN CAPITAL EXTERNALITIES: EVIDENCE FROM LOCAL LABOUR MARKETS

## Ioannis Kaplanis, London School of Economics, UK & Universitat Rovira i Virgili, SPAIN Andreas Georgiadis, University of Oxford, UK Vassilis Monastiriotis, London School of Economics, UK

This paper examines the existence of external returns to human capital in the British local labour markets. The purpose of the research is to estimate any measurable impact from higher levels of human capital in an area (measured by educational or occupational composition) on the wages of individuals of the area after controlling for individual characteristics at individual wage regressions. Lucas (1988) argued that external effects of human capital arise due to some form of formal or informal interactions between workers and therefore enhance productivity of fellow workers. A subsequent strand of mainly empirical research attempted to estimate the magnitude of these external effects of human capital (Rauch, 1993; Acemoglu and Angrist, 2000; Moretti, 2003, 2004; Ciccone and Peri, 2006; Rosenthal and Strange, 2008). In a similar vein, studies for the UK have examined human capital externalities at the regional level (Monastiriotis, 2002) or the industry level (Kirby and Riley, 2008). For our research, we use a newly available dataset for Britain (ASHE) with individual level information on wages and other personal characteristics, where individuals can be tracked over time. ASHE contains information on approximately 1% of the British workforce and provides detailed geographical information on the workplace of each employee, enabling analysis at different spatial levels. Applying wage regressions for the period 2002-2010, we estimate the effect of the aggregate level of human capital at the local labour market on individuals' wages, once controlling for individual and local area characteristics. Exploiting the panel element of the data, the analysis controls for unobserved individual and area heterogeneity that is timeinvariant. Different measures of the level of human capital are used in order to enhance the analysis: average years of schooling, concentration of high-skilled workers (measured by educational qualifications or occupational composition). Travel-to-work-areas (TTWAs) are used for the spatial level of the analysis, as they refer to largely self-contained local labour markets. Contrary to spatial units based on administrative boundaries, TTWAs are constructed such that 75% of individuals live and work within the same area. Alternative spatial levels are used to complement the analysis. In order to control for spatial sorting of high-skilled individuals, the approach is twofold. Firstly, we use area specific time trends so that variation in the local human capital is due to high-skilled migration driven by unanticipated (non-linear) changes in area wages. Secondly, an instrumental variable approach is employed that utilises predetermined area differences on demographic characteristics to predict growth in human capital in an area (as in Moretti, 2004).

#### Gateway J

# THE IMPACT OF THE INSTITUTIONAL FACTORS ON THE LOCATION OF SMES: CASE OF ROMANIA, BUCHAREST-ILFOV REGION

## Cornel Ghita, University Politechnica of Bucharest, ROMANIA Cezar Scarlat, University Politechnica of Bucharest, ROMANIA

The SMEs' success is a result of a complex set of diverse factors - among them the business location plays a key-role. The SMEs' common problems like lack of information, organizing and financing shortages may prevent a good location choice. This is why the strategic decision on the future location should be very well documented. The purpose of this paper is to suggest a set of recommendations in order to improve the decisions

regarding the SMEs' location from the institutional point of view. It reports the results of the literature survey and development of a conceptual model based on the institutional approach of the location theory. As far as methodology, mostly secondary research was used. The literature survey was used to review potential institutional factors and the way they influence the location of certain industries, in case of Romania. Herein we referred to previous studies from Romania and other EU countries. The spatial deployment of industries in NUTS-II Bucharest-Ilfov Development Region of Romania was analyzed, using a set of criteria with a twofold objective: identification of areas presenting a higher concentration and growth in some industries, as well as pointing to the potential formation of competitive agglomerations. Recent statistical data sources - such as Romanian Statistical Yearbook 2011 and Romanian SMEs' White Chart 2011 - were used. At this stage of research, no interviews or questionnaires were used in order to assess the cooperation level between local firms, as related to cluster behaviour. As previous studies demonstrate, the level of functional clusters is lower in Romania, compared to industrialized EU countries. This study aims to identify the institutional factors and special local conditions that favour spatial agglomerations and may foster emergence of functional clusters. The results consist of identification of the institutional key factors derived from location theory and validated through the Romanian SMEs spatial analysis, factor intensity mapping, and eventually a decision support guide for business location of Romanian SMEs. The managerial implications for both SMEs and policy makers are highlighted; thus the private and public (EU and national) funds will be better spent. The present study should be a starting point in location analysis, undertaken by every individual start-up in order to take full advantage of the opportunities offered by public incentives and favourable conditions available at certain locations. As stated, it is not an exhaustive analysis; it covers institutional forces only (business networks, EU and national policy, local institutions and major stakeholders). This study is part of a larger research project focused on the general location theory which will conclude with a software decision support system (so-called 'business locator'), an iterative tool with the possibility of integrating an individual assessment based on firm internal factors. In this respect, further studies are yet to be published.

#### Gateway I

## EXPLORING INTERREGIONAL TRADE NETWORKS IN SPAIN. TOWARDS A NEW TOOL FOR SUPPORTING REGIONAL STRATEGIES FOR SMART SPECIALISATION

#### Carlo Gianelle, Jrc-Ipts, SPAIN Ignacio González Vázquez, Jrc-Ipts, SPAIN

This work analyses the complex network of interregional trade flows in Spain in the period 1995-2009. Data from C-Interreg database are mapped onto an annual series of weighted directed graphs in which the vertices represent regions and the links are flows of goods and services. A range of network characteristics is calculated, appreciating the presence and evolution of a centre-periphery structure, the overall density and cohesion. Regions are ranked according to their position in the network and to the strength of their external connections. The immediate policy implications are applied to the case of Andalusia and derived to the field of regional innovation and competitiveness-enhancing policies, in which Spanish regions exercise relevant competences. In particular, strengths and weaknesses of the Andalusian regional innovation strategy are identified in the light of the analysis, as a means to assisting regional policy makers in adapting the current strategic framework to the rationale of smart specialisation. The work also highlights the potential of the methodology for deriving a new family of indicators on the external connectivity of regional economies which can be used by regions wishing to develop their own regional innovation strategy for smart specialisation.

#### Gateway H1

# APPLYING SOCIAL NETWORK THEORY IN THE TRANSPORTATION SYSTEMS FOR REGIONAL PLANNING AND DEVELOPMENT

## Ioannis Giannelos, TU Delft, NETHERLANDS Nikolaos Hasanagas, Aristotle University of Thessaloniki, GREECE Eleni Papadopoulou, Aristotle University of Thessalonik, NETHERLANDS

Transportation has the ability to transform a group of points within some certain geographical frame from a loose sum of places into a cohesive and interrelated entity. This transformation is achieved by developing and utilizing the properties of specific transport links, used to connect pairs of points between them. When public

transport systems are under stake, such as the operation of bus or train services in a broader region, a technical infrastructure network emerges by the sum of interconnected links. Although they refer to strictly technical aspects, transportation networks, as well as communicational networks, pose strong societal implications caused by the process of their development and planning. That is to say that a dense transport system or an intensive use of links renders villages or neighbourhoods, which would otherwise be isolated or even socially excluded, to be considered as parts of the same city or region and share the same developmental potential. How crucial is a link or a station for the cohesion of the transport system and the area development? What exactly is the role of each of the network components? Which links serve mostly to connect points on the network? Which of them pose a more strategic position on the networks function providing the possibility for transfers? How can a transport system be rationally organized considering the users needs? Which systems should be primarily operated in cases of need or restricted resources? What are the implications of an alternative network design on the role each transport service of the network is granted? In this paper we attempt to answer these questions by applying tools and methodologies that are used in the field of social network analysis. Quantitative social network analysis is an operationalization of System Theory, which could also be used for answering these questions. Appling quantitative social network analysis on transport networks can provide a different type of insight on which transport links serve each different role in the network. Examples of algorithms that can be applied to clarify the roles of the links in the network are those like betweenness centrality (indicating crucialness for the existence of the network), closeness centrality (indicating the importance of a station or link for the users) or status (indicating a network hierarchy) and density (indicating intensity of activity) which are used for measuring the crucialness of the network system elements. By applying such algorithms in a transportation network, the different transport links composing the network are assessed and the role they undertake in the network structure is identified. In this way, the most important links for the areas integration and cohesion are detected.

## Gateway K HOW OPEN IS OPEN INNOVATION?

## Martin Gjelsvik, IRIS (International Research Institute of Stavanger), NORWAY Rune Dahl Fitjar, IRIS (International Research Institute of Stavanger), NORWAY Andrés Rodrigues-Pose, London School of Economics and Political Science, UK

The geographical sources of innovation of firms have been hotly debated. While the traditional view is that physical proximity within city¬-regions and being part of an industrial cluster are keys for the innovative capacity of firms, the literature on 'global pipelines' has been stressing the importance of establishing communication channels to the outside world. This paper uses a specifically tailored survey of the geographical distance and scope of collaboration for innovation of 1604 firms located in the five largest Norwegian city-regions (Oslo, Bergen, Stavanger, Trondheim, and Kristiansand) in order to determine a) the diversity of collaboration for innovation of the sources of collaboration and c) vital factors behind the propensity to collaborate in Norwegian firms. Managerial values and attitudes have a significant impact on the company's level of cooperation, and they work in fundamentally different ways for local compared to international interaction. Regional trust has a positive effect on collaboration with regional and national partners, but does not spill over to foster international cooperation. Conversely, open-mindedness does not matter for regional and national cooperation, but has a strong and significant positive effect on the degree of international cooperation

Gateway F1

## EVALUATION OF THE EFFECTIVENESS OF THE COHESION POLICY ON THE LOCAL COMMUNITIES FROM ROMANIA AND LITHUANIA - A COMPARATIVE APPROACH

## Oana Raluca Glavan, Valahia University from Targoviste, ROMANIA

Participation of both Romania and Lithuania to the European Union has brought them possibilities and opportunities to start acknowledging the status of their economic and social systems and to begin thinking strategically by connecting these domains to the realities of the markets, considering the European Single Market and the globalisation process. Reforming the systems was more than necessary after decades of communism that promoted a "form without content" in many aspects of the public policies. Even if one couldn't

assert today that both countries have been clearly designed long-term development policies and strategies, there have been a lot of improvements. Even if this process appears in reality driven by the spill over forces of the European Union, I consider that we can talk today about an assumption of responsibility of both the political and non-governmental class in drawing up a path and vision for the future of their countries. Scarce governmental resources in a time of economical transition, when public resources were rather directed to ensuring the economic stability of the markets and financing the elementary needs of the population and further on, in times of economic crises, when drastic budgets cuts occurred, left behind the local and regional communities and their specific development needs. Opportunity appeared with the use of Structural Funds. A financing scheme based on European, public and private financing combining strategic views and needs of economical players allowed a start-up in creating a bunch of projects that sooner or later will start to seriously impact on the economy. Both Romania and Lithuania have dedicated financing lines for regional development. Romania has designed an Operation Program for the Regional Development which has six priority axes that are concentrating funding for: sustainable development of cities, improvement of regional and local transport and social infrastructure, support for businesses and for tourism development. The total funding available for Romania for 2007 – 2013 is 4.4 billion Euro from the European Union through the ERDF (European Regional Development Fund) with a cofinancing rate of 84%. Lithuanian counterpart is the Operational Programme for Promotion of Cohesion which concentrates financing for local and urban development, cultural heritage, quality and availability of public services as well as environment and sustainable development, enjoying a total amount of 2,648,332,571 Euro from the European Union. Analysing the current absorption rate of the European financing for Romania, one can notice that the value of projects submitted by now is twice higher than the European allocation of funds for the whole period of 2007-2013, which highlights the interest that all beneficiaries have for this program. On the other hand, unfortunately the real absorption rate is of only 11,73% in the middle of the programming period which raises questions of administrative and financial capacity of the public administration, but as well as preparedness of the beneficiaries to implement sustainable projects. Comparably, for the same operational program, one can notice that Lithuania has a better equilibrium between applications received and approved - of 77,3% (Romania has only approximately 36.5 %) and between contracts signed and funds paid out: 51,6%. The comparative study between the two countries would analyse the specificity of their economies and development in order to find common challenges regarding the implementation and the effectiveness of their regional development strategies, the effects of the administrative reforms on the absorption capacity, the role of the local and regional communities in the process, as well as exploring and sharing good practices, such as the Baltic Sea Strategy, electronic data management system for the monitoring of implementing projects and many other. The article will evaluate the effectiveness of the regional policy over the development of the regional and local communities in both countries, the partnership principle in practice, the complementarity with other national policies, innovative approaches to implementation and monitoring of projects, as well as the prospects of the territorial cohesion in coastal areas, Baltic and Black Sea alike.

#### Gateway G

## MATURE WORKER IDENTITIES AND GLOBAL KNOWLEDGE TRANSFER: INCLUSIVE PLACES INTO ACTIVE AND HEALTHY AGING BRANDED CO-CREATIVE COMMUNITIES

## Frank Go, Rotterdam School of Management, NETHERLANDS Steve Little, Open University, UK

The creation and renewal of skilled labour and knowledge is seen as a central part of the learning process within regions (Asheim and Gertler, 2005; Lambooy, 1998). Henry and Pinch (2000) provide theoretical and empirical evidence of 'people' in transferring knowledge and place as a powerful attractor (and creator). This paper explores the social life of information potential of the complimentary flows of people and resources between centre and peripheral locations (Little et al, 2006: 9). 'Further research is needed on the mechanisms and processes that generate innovation. These include the development of human capital and local labour markets and the mechanisms for knowledge transfer across organizations. In particular it is necessary to enhance our understanding of the relative importance of local and non-local, national and global sources of knowledge' (Asheim et al, 2011). Such investigation is especially justified consequent to the Active and Healthy Aging lines of political and economic power and authority that are shaping the ecological and political landscapes of the industrialized countries of Europe. By 2030 European citizens aged over 65 is expected to rise by 42 per cent (Eurostat, Europop 2010), creating significant societal imbalances (social, economic, spatial) and generating numerous issues in regard to the role of space and place. Regions and local situations are increasingly projected spatially and 'temporally to connect up with other distant and often unknown social arenas which are rarely 'self-contained and separate from other arenas' (Long, 1997:6). The impact of mobility

enabling bodily movement and new media affording mobile and connecting minds has been very significant, because these allow for spontaneous technology-mediated interactions. Together, these two dimensions lead to intricate patterns of inclusive and exclusive places, along four spatial dimensions: material space, information space, social space, and mind or symbolic space (Go and Fenema, 2006). This development underscores the significance of 'developing analyses of interlocking arenas that go beyond the earlier territorial conceptions of social space based, for example', on "centre- periphery dichotomies' (Long, 1997:6). Mobile and multi-location work styles are global sources of knowledge and innovative approaches to economic development that involves the commercialization of technologies with effective public and private initiatives for co-creating new, userfriendly, ecologically compatible infrastructures for, first, smart growth, based on knowledge and innovation; second, sustainable growth, aiming at a more competitive, resource-efficient and green economy; and third, inclusive growth to lever diversity for global competitiveness. The familiar co-located workplace has rapidly changed into a mobile and multi-location space, where all sorts of relationships exist. Accordingly, within a multi-level, multi-actor context, there is an urgent need for mapping ways of managing inclusive places for active and healthy aging, into branded co-creative communities. The local is a cluster for learning and innovation transfer under conditions of mobility. In the wake of the recent financial crisis public confidence is at an all time low. Raising it will take more than vaguely worded regional marketing practice, in particular a cocreative 'active and healthy aging' branded place reputation.

#### *Gateway M* TAILORING EU POLICIES TO NATIONAL NEEDS: TERRITORIAL IMPACT ASSESSMENT FOR FOUR DIRECTIVES

## Mojca Golobiè, University of Ljubljana, SLOVENIA Naja Marot, University of Ljubljana, SLOVENIA

Territorial impact assessment (TIA) is a recent approach differing from other types of assessments in its territorial sensitivity, meaning that it explicitly takes into account differences across territories in their physical and governance characteristics. TIA aims to avoid disparate effects of policies on territory and improve crosssectoral coordination. Contribution reports on an EU transnational project, financed under ESPON (European Spatial Planning Observation Network) programme. It focuses on use and incorporation of TIA in the EU policy making process, with the main aim to support the national position making regarding the proposal of EU directives. The project research team collaborates with national knowledge networks in three involved countries (Great Britain, Portugal and Slovenia) to develop common assessment framework. The framework consists of four phases: screening, scoping, assessment and evaluation-synthesis. In the screening phase a decision is made on whether the TIA is necessary for each directive or policy inspected. A logical chain is used as a method to schematically represent the content of the directive, namely the legislative framework, main objectives and relevant measures. Additionally, brainstorming is used to draft the list of potential impacts, grouped in four topics that are (1) environment and territory, (2) economy, (3) society and (4) administration and governance. In the scoping phase more detailed examination of the directive is prepared containing the description of the measures, their goals and target group. Criteria to describe territorial elements, e.g. soil quality, water quality, economic growth, BDP, are selected from a generic lists for each of the four already mentioned topics. Furthermore, assessment team considers territorial units on which the impacts are evaluated. Territorial impacts are later on evaluated and summarized regarding the territorial policy objectives, e.g. EU cohesion policy or national spatial development policy. In the next step the actual assessment is performed, thus evaluators individually assess each relationship measure territorial unit criterion. More precisely, they answer the question how will the particular directive measure influence one criterion in particular (type of) region. The assessment is done in numeric (5-point scale from -2 to +2) and descriptive manner, meaning each numeric score should be accompanied by commentary. After that scores are summarized and also graphically represented. The results of the territorial impact assessment expose the most influential measures and the overall impact of directive, explain territorial differences of the impacts in chosen territorial units and list the most impacted criteria. The testing project work package varied between the project partners regarding the tested directives, although Habitat directive 92/43 and Directive 2010/31 on energy efficiency of buildings were selected in all three countries. Additionally, in Slovenia draft of SEVESO III directive was taken into account, as well as Directive 2009/28 on use of renewable resources. The initial results have shown that overall predominantly positive impacts can be expected from all four considered directives. More diversified impacts were assigned to the Habitat directive. In the topic environment and territory most of criteria were evaluated as positive expect for urbanization and use of renewables which will be limited due to the directive. In economy negative impacts may be expected regarding economic growth, quality and accessibility of infrastructure. The most problematic is the

field of governance in which all criteria were marked as negative that is duration of the spatial planning process, administrative costs, national budget and division of tasks on different territorial levels. Beside the concrete results of testing, the TIA framework applicability has also been checked in all partner countries. Despite considerable differences in national tradition of assessments and administrative potentials for TIA, there is a common interest of policy makers to use TIA as a support tool in the negotiations in the process of preparing EU regulations. The final results will include the extent and characteristics of directives territorial impacts on the NUTS3 regions level, as well as administrative options to include TIA in existing policy assessment and development procedures.

#### Gateway B1

## UNCERTAIN FUTURES AND RESILIENT CITIES – THE ROLE OF COMMUNITIES IN SPATIAL PLANNING?

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## Eduarda Costa, Instituto De Geografia E Ordenamento Do Território - Universidade de Lisboa, PORTUGAL

Cities devastated by tornados, droughts, floods, earthquakes, seaquake, nuclear risks, having always like background the effects of the climatic alterations punctuate the global present. His frequency is such that the images of the different events dispute the mediatic space. In another meridian of this hyper-present, emerge daily the multiple facets of the financial and economical crisis (crisis in the property market, crisis of the sovereign debt, of the fuels, of the food goods, ...) what, in the transposition for the territories, results in successive additions of pressure on his social, business and government structures. When these structures give in, will amplify the unemployment, the poverty and in some cases, they turn in the social rupture. The context of growing pressure on the territorial systems request and attribute a special pertinence to the study of answer's mechanisms that the cities will develop. For such, is necessary, rethink the principles applied to the urban planning, questioning the approach in the productivity / competitiveness / efficiency / innovation. One form of doing is through the serious study of the resiliency in the urban systems. In this plan, we put the "urban aptitudes" susceptible of guaranteeing uninterrupted capacity of restoration of the systems in which these territories are separated. The reflection what we propose contemplate, firstly an approach to conceptual spectre of the resiliency with sight to the stabilization of his application to the urban territories in order that then we place ourselves in the conception of its practical application. So, with this article will be presented the different conceptual approaches that have been done in the studies dedicated to the resiliency and will be proposed developments in the analysis to the components integrated in the concept of territorial resilience (diversity, connectivity, flexibility, adaptability, competences, and governance) that allows to open ways, for the planning of resilient cities.

#### Gateway H

## DESTINATION CHOICE FOR RECREATION IN THE NETHERLANDS: ASSESSING THE INFLUENCE OF DESTINATION-SPECIFIC ATTRIBUTES WITH CORRECTION FOR PRICE ENDOGENEITY

## T.C.A.P. Gosens, VU University, NETHERLANDS R.R. Van Loon, VU University, NETHERLANDS J. Rouwendal, VU University, NETHERLANDS

In general, activities can be divided into two distinct categories: mandatory and discretionary activities, with discretionary activities built around the set of mandatory activities in life. Constraints in time induced by mandatory activities have far-reaching implications for the spatial extent of discretionary activity trips: the spatial choice set decreases in size, since the consumer can only assign a threshold value of time to both travel and the activity itself. Recreation is such a high frequency discretionary activity type which faces spatial choice restrictions: each consumer undertakes, on average, four out-of-home recreation trips per week (CVTO, 2007). Recent years have brought insightful applications on spatial choice for such trips (e.g., Scarpa and Thiene 2005; Pozsgay and Bhat 2001; Lin et al. 2007; Oppewal et al. 1997). Random utility models have usually been applied for this matter, because these models easily allow for the inclusion of a large set of alternatives, and

accommodate flexible substitution patterns across the choice set. Including a broad range of alternatives however potentially comes at a cost. Recreation demand studies often assume that all alternative-specific attributes are observed, or only restrictively allow for the existence of unobserved attributes. Murdock (2006) mentions two reasons. On the one hand, this is because acquiring high-detail data for distinct destinations is challenging, while on the other hand some attributes are hardly measurable. A number of studies (e.g., Berry 1994; Berry et al. 1996; Murdock 2006) have argued that ignoring existing unobserved alternative-specific attributes entails price endogeneity, as destinations with desirable unobserved attributes tend to be valued higher by the consumer (and conversely). In the case of recreation, the travel cost parameter may correlate with unobserved site characteristics, which heavily distorts welfare estimates in the case of alteration of these destination-specific attributes. This paper addresses what drives the spatial choice of consumers for a set of four types of recreation activities (viz. outdoor recreation, social entertainment, culture recreation, and attraction park recreation). We estimate two types of random utility models and control for endogeneity between the price variable (travel cost or travel distance) and unobserved destination-specific attributes with a two-step methodology inspired by Murdock (2006). The first step produces a full set of alternative-specific constants, while the second step allows for unbiased mean tastes of observed alternative-specific attributes. Addressing what drives consumers in different types of recreation is important for policy as recreational travel is forty-five percent of all travel movement. Thus, there is substantial room for decreasing pressure on transportation networks by allocating the right set of attributes at the right place. Especially recreation types such as outdoor recreation and culture recreation frequently require investment from a multitude of government parties, and thus optimal allocation is beneficial for society. With the unbiased travel cost parameter and alternative-specific attributes we are able to provide in-depth information on what drives consumers for a range of activities. For this purpose we apply a rich database with observed choices in recreation: the Continuous Free Time Survey of 2007. This survey collects all recreation choices for a representative set of consumers during exactly one week of registration. We show that the willingness to travel differs between the included types of activities, and that the choice for destination depends on attributes specific to the activities in question. For some activities, the availability of supplementary facilities such as catering industry increases probability of visitation. Welfare estimates indeed change when explicitly controlling for unobserved alternative-specific attributes.

#### Gateway K

## A COMBINED APPROACH OF EVALUATION TOOLS FOR REGIONAL POLICY INNOVATION: THE CASE OF MARCHE REGION

## Andrea Gramillano, T33, ITALY

The aim of the paper is twofold: to propose an evaluation approach for regional innovation policy, able to meet the methodological challenge of combining several tools in a complete and effective way; to describe the empirical (qualitative and quantitative) results of the adoption of the approach in the case of the evaluation of Regional Operational Program (ROP) by Marche, a region located in the centre-east of Italy. From a methodological point of view, the adopted approach has at least three reasons for interest. First, it is based on the combination of various tools usually recurring separately in the literature and in the practice: quantitative and statistical tools; qualitative tools such as case studies, desk analysis and focus group. Secondly, the methodological approach is an effort to put in practice the recent orientations of the European Commission in the field of impact assessment of Structural Funds for Cohesion Policy after 2014. Third element of interest - as a consequence of the reasons explained above - this approach has a high potential of transferability in other local or regional contexts. The case of Marche region is interesting because it is a concrete example where the evaluation approach has been used for the independent evaluation of the innovation interventions implemented in the framework of the Regional Operational Program (ROP). The ROP has a total budget of around €289 million for the period 2007-13, funded at 39% by the European Regional Development Fund (ERDF). The ROP is divided into six Priority Axes, among which the most important in financial terms is the Priority 1. The Priority 1 concerns innovation and knowledge economy and represents the object of the evaluation. The independent evaluation has been an opportunity to reflect upon the innovation dynamics in the region, that is experiencing a period of great changes and of crisis in some traditional manufacturing industries. According to the European Commission Regional Innovation Scoreboard, Marche region has a medium-low position in Europe, due to a low level of tertiary education, absorptive capacity, R&D expenditure and collaborating innovative firms. The regional industrial model - mainly specialized in traditional sectors - is much exportoriented and basically composed of low-capitalized micro and small enterprises. Nonetheless, Marche is one of the most manufacturing regions across Europe and has a dense regional network for innovation, thanks to the presence of six public research centres (including four Universities) and seven knowledge centres (including

three public-private centres). The evaluation approach produces some interesting results. First of all, it describes a complete picture of the innovation policy by making explicit "the theory of change" underpinning the ROP. Secondly, it allows a systematic combination and completion of various evaluation tools in order to provide a quantitative dimension of the results (how much) and to give an interpretation (why). In particular, the desk analysis is useful for: monitoring the accessibility to incentives; updating the progress of the implementation of the Priority 1 through the use of output and result indicators; reconstructing the logical framework of the interventions. The use of a mix of institutional paradigms on innovation gives at the same time the opportunity to "locate" the region in the European context according to various scoreboards and to choose the appropriate analytical strategy to detect innovation at firm level. In order to assess the effectiveness of the incentives, quantitative tools are used in the framework of a counterfactual analysis, which is carried out in a selected sample of firms. At the same time, case studies allow to describe the behavioural additionality, the relevance of intangibles and the various types of innovation at firm level. The combined use of statistical tools and of the case study allows us to identify the main factors of success of the innovation: human capital and networks within the R&D/innovation system. Among the other main findings, a positive element for a higher effectiveness of the interventions is the active participation of universities to the financed projects. Universities exert various roles in the innovation process such as: centre of technological transfer; suppliers of highly specialized worker; stable partners in innovative processes; start-up firms, in the case of spinoffs. The incentives with a more technological oriented perspective perform better in promoting an upgrade of human capital and in building cross-sectoral networks for innovation.

### Gateway K THE ROLE OF INNOVATION IN REGIONAL ECONOMIC GROWTH

## Corina Grigore, ASE, ROMANIA

Differences across regions within countries are often greater than differences between countries, yet economists, policymakers and international organizations have paid less attention to regional development than national growth. Regions should promote their own growth by mobilizing local assets and resources so as to capitalize on their specific competitive advantages, rather than depending on national transfers and subsidies to help them grow. Traditional policies based only on infrastructure provision or schooling are not sufficient for this task; instead, a more comprehensive policy is called for, one that integrated these two policies in a co-ordinated agenda across levels of government and that foster business development and innovation. This paper aims to look into the determinant role of innovation at regional level for potentially explaining the variations in growth among regions

## Gateway M3

## STRATEGIC ANALYSIS AND CONDUCT IN REGIONAL SETTINGS

#### Niels Boje Groth, University of Copenhagen, DENMARK Karina Schested, University of Copenhagen, DENMARK

Abstract for presentation to be given at the RSA European Conference 2012: Networked Regions and Cities in Times of Fragmentation: Developing Smart, Sustainable and Inclusive Places. May 13th –16th 2012, Delft University of Technology, Delft, Netherlands Submitted to gateway M (Territorial governance: Planning policy and practice), special session M3 (Towards the integration of territorial policies at the regional level) Strategic analysis and conduct in regional settings Niels Boje Groth and Karina Sehested, Danish Centre for Forest, Landscape and Planning, University of Copenhagen, Denmark In this paper, the concept strategic planning is discussed and especially related to efforts at the regional level to conduct integrated spatial development strategies. Models for strategic analysis and strategic conduct are discussed at theoretical level and as derived from empirical studies of four regions (Region Zealand (DK), Västerbotten region (SE), Randstadt (NL) and Greater Birmingham and Solihull (UK)) within the framework of the ESPON stakeholder project: Regional integrated strategic conduct relates to two paradigms of strategic planning, the analytic and the learning paradigm (Bryson 2003, Mintzberg 1994, Sartortio 2005, Sager 1994). Keeping these two paradigms jointly together, the paper deals with analytical issues central to strategic planning, e.g. the role of the region in national and global division of labour, regional potentials for developing new regional identities, strategic visioning with regional

stakeholders and spatial positioning of the regional territory (Williams 1996). It is argued that the core issue of strategic thinking is dealing with uncertainty and relations with the outside world (Agersnap 1970). A model for strategic analysis is set up – called the strategic circle. The elements of the strategic circle is presented and tested empirically on regional strategies from the four stakeholder regions. On the one hand, the test is used for understanding strategic reasoning – on the other hand, different applications of the strategic circle is found useful to characterise a variety of strategies. Strategic conduct relates to the processes of strategy making. The challenges of overlapping and partly independent strategies are discussed and the concept of family-sizing is introduced as an alternative to hierarchical integration and coordination. Based upon project findings, the continuity and discontinuity of strategy and implementation is discussed. References are made to theories of 'implementation structure' (Hjern and Porter 1981), but also to the critique of rational action by Hannah Arendt is used to deal with the syndrome of action understood as implementation. It is suggested that when discontinuity between strategy and implementation is observed, it may be treated as a new start-up rather than decision failure. Along with the key concepts of strategic analysis and strategic conduct, the paper deals with the problems of balancing between generic and contextual observations of planning practice.

#### Gateway WHO

## CRITICAL FACTORS IN 'LIVINGS LABS' AS A TOOL TO ACCELERATE INTRODUCTION OF HEALTH INNOVATION, NEW MEDICAL CONCEPTS AND TECHNOLOGY

## Nick Guldemond, Delft University of Technology, NETHERLANDS Marina Van Geenhuizen, Delft University of Technology, NETHERLANDS

The commercialization of knowledge created at universities is recognized today as the third mission of many European universities. This has urged policymakers to give attention to entrepreneurial stimulating role of universities, like in establishment of spin-off firms, licensing of patents, joint university-industry projects, etc. So far, commercialization of university knowledge has been structured within Triple Helix constellations (university-business-governments), but the number of actors involved is increasing, due to a growing open innovation and application of 'living labs'. 'Living labs' are practical learning networks that start in a city (a building, quarter, campus, etc.) and aim to reduce time-to-market of innovations through learning with customer groups in real-life design, testing and validation in early stages of innovation. Participants in 'living labs' are typically universities, research institutes, customer groups, small and large firms, non-profit institutions (like hospitals) and local/regional authorities. Accordingly, 'living labs' find themselves in a multi-actor situation that needs to be dealt with, in the design and management of 'living labs'. The paper has a focus on medical 'living labs' given the increased opportunities provided by the aging population, the need for a multidisciplinary approach and prevention (instead of merely curing), and the need to move focus from medical results to wellbeing of patients. In addition, innovations in health care are difficult to introduce due to, for example, the regulatory system, the system of reimbursement, and complexity of transmural processes. The paper starts with a state of the art study dealing with design and performance of 'living labs'. Critical success factors are identified from the literature and explored in three case studies of 'living labs', among others, 'Proeftuin Delft: Zorg & Technology in the city of Delft, the Netherlands. The focus will be on creation of health innovations in a multi-actor environment with an added value for science, society and business.

## Gateway A1 A FAILED SUBSTITUTE FOR MUNICIPALITIES?

#### Fredrik Skau Gundersen, Adger Research, NORWAY

For many years municipalities have collaborated to solve common political and administrative problems. Regional networks are most commonly used by Norwegian municipalities to address this problems and an example of one is regional councils. The use of regional councils has increased the last years and in fact almost every Norwegian municipality is today a member of one. The structure and number of Norwegian municipalities have the have been few significant changes. Because of this there is an ongoing debate about the structure and size of the Norwegian municipalities, which is characterized by its many small municipalities in rural areas and some large municipalities in urban areas. All municipalities, small or large, in Norway have to deliver the same services and that is known as the generalist principle. In addition to the fragmented structure and the generalist principle,

there is an increasing demand for more functional regions. To meet these challenges there is an increasing tendency of collaboration between municipalities, one of them being regional networks. The rice of these types of networks is often referred to as the shift from government to governance (Marcussen & Torfing 2007). To learn more about the role and influence of these regional councils we sent out a survey to local politicians. The survey was sent to local politicians in 77 municipalities which are member of 11 different regional councils. The 2196 local politicians were asked about their perception of these networks from an objective point of view. (Jacobsen 2010) The survey asked the politicians to rate the influence of the regional councils on different variables. The answer could tell us how the regional councils:

- acts as an agenda setter in the region
- effects the decision making in the formal institutions
- if they have any formal decision making

On almost all variables the local politicians rate the networks as little influential and there is a clear understanding that there is no formal influence in the regional councils. Since the local politicians rate these networks as so little influential it raises some questions on why this is so. Is it a question of too little resources put in to the network, lack of political will, or skills, to collaborate or is it other aspects that affect the influence of these types of networks?

#### Gateway I

## UNCOVERING BARRIERS TO CROSS-BORDER CLUSTERING BY ADOPTING A HOLISTIC PERSPECTIVE OF EMBEDDEDNESS. THE CASE OF THE AUTOMOTIVE INDUSTRY WITHIN THE REGION SAAR-LOR-LUX.

## Christoph Hahn, Saarland University, GERMANY

Particularly since the implementation of the INTERREG programme by the European Commission in 1989, many border regions in Europe have been promoting cross-border links with their neighbouring regions. The aim of these initiatives is, for instance, to minimise negative border effects or to overcome consequences of peripherality by capitalising on cross-border synergies. Today, such cooperation is a multi-actor and multi-level process which includes individuals, firms, interest groups and politicians from the local and regional to the European and even global scale. Concerning economic development, many border regions try to improve the business environment, particularly for small and medium-sized enterprises, by the facilitation of cross-border relationships via cluster and network initiatives. In line with these trends, stakeholders of the region Saar-Lor-Lux are repeatedly calling for the creation of a cross-border automotive cluster. The automotive industry forms one of the main industrial backbones of this region, yet it is characterised by radical structural and technological changes due to globalisation and the heralds of a green revolution. This overall unstable situation is further intensified by the recent global economic and financial crisis. As a consequence, many actors of the automotive industry within the region Saar-Lor-Lux perceive cross-border cooperation as a promising response to these challenges. However, such interaction is still rare. The paper seeks to uncover the reasons for the low frequency of cross-border economic relationships by developing a holistic perspective of embeddedness. This perspective takes into account arguments of the current debate among economic sociologists concerning limitations of traditional definitions of 'embeddedness' and links this discussion to insights gained by four recent 'turns' within economic geography - i.e. cultural, institutional, relational and evolutionary. The holistic approach conceptualises economic actors and their actions as being embedded in both, cultural, institutional, relational, evolutionary, spatial and economic settings. From these settings emanate multifaceted contexts which differ between actors and change over time. The paper argues that an integrated approach helps to analyse these contexts as complete as possible and allows for the identification of barriers to cross-border cooperation. In addition, the insights gained from adopting a holistic perspective of embeddedness contribute to the formulation of sustainable policies which recognise distinctive problems and implement regionally grown solutions. Concerning the automotive industry within the region Saar-Lor-Lux, the paper identifies four groups of actors who are actively involved in cross-border clustering - i.e. firms, cluster initiatives, local / regional politicians and organisations of the transboundary region. Due to their embeddedness in various contexts, these actors have different attitudes towards cross-border interaction and different resources to install transboundary cooperation. As the analysis demonstrates, some actors are not interested in such relations, as they, for example, perceive foreign actors as competitors, are not in need of further relations or have a sufficient pool of partners located within their own region. Others are willing to 'cross the border' but are hindered by a lack of resources or border effects. National borders hamper, amongst others, flows of information and limit cultural and legal systems as

well as a sense of togetherness. Another obstacle for cross-border interaction results from the fact that the contexts, attitudes and resources of two potential partners might be incompatible. Thus, by adopting a holistic perspective of embeddedness, the paper reveals that there is, in principle, potential to foster transboundary clusters within the automotive industry of the region Saar-Lor-Lux by organising cross-border events or setting up transboundary databases which ease information flows. Yet, on the other hand, deeply embedded opinions as well as institutional mismatches constitute significant barriers towards the creation of an efficient transboundary automotive cluster.

### *Gateway G3* **THE FINANCIALIZATION OF URBAN PRODUCTION: PERSPECTIVES FROM A TERRITORIAL ECONOMY PERSPECTIVE**

## Ludovic Halbert, Université Paris-Est, LATTS, FRANCE

The growing role of financial markets in the production of cities and regions is receiving an increasing amount of attention. Various theoretical explanations are now available: from standard economic analysis that insists on the interactions between demand and supply, to neo-marxian critical approaches on the role of the urban built environment in the switching of capital and to various neo- or old institutional economics developments. The paper attempts to build on recent advances in territorial economics to offer a more encompassing view on how the production and reproduction of cities and regions are increasingly related to the strategies and practices of transnational finance capital investors. The starting point of the argument is that the skewed geography of capital managed by such investors is related to the development of territorially-based systems of actors which provide internal and external agglomeration effects. First, in spite of the increased geographic reach of finance capital invested in the provision of urban assets, it may be hypothesised that the finance industry involved in real estate remains concentrated in major city-regions to benefit from location economies (hence internal effects). This helps reduce the level of uncertainty associated to investments in real estate. Second, the paper analyses how agglomeration economies that are external to the finance sector help shape investment decisions. The argument is that the observed geography of investment in real estate may not be separated from the ability of wider systems of public and private actors to facilitate the (temporary) fixation of capital in given city-regions. Such systems of territorially-based but transcalar networks of actor may be said to develop more conducive conditions to finance capital managers. After discussing the respective merits and limits of some of the various theoretical approaches at hands, the paper develops the territorial economy perspective. It insists on the recent advances of the territorial economy which manages to more accurately conceive the territorial dimension of globalization processes. Then, it builds on a series of recent works that analyze the "anchoring" of finance capital into urban assets and highlight the role of Transnational Territorial Networks associated to this process. It then draws on an analysis of the real estate investment industry in France to discuss the core argument. Some stylisized facts of the spatial concentration of investment are evocated before turning to an analysis of the finance-real estate cluster in Paris. A series of 60 interviews with investment managers and real estate professionals help analyze the internal and external agglomeration effects.

## *Gateway K2* BREAKING OUT OF BORING CLUSTER PATH DEPENDENCY? THE CASE OF TOURISM DEVELOPMENT IN NORTH JUTLAND, DENMARK

### Henrik Halkier, Aalborg University, DENMARK Anette Therkelsen, Aalborg University, DENMARK

Tourism has traditionally been perceived as being characterised by a combination of labour-intensive hands-on services, a preponderance of small or micro firms, and limited innovation (Jensen et al. 2001; Hjalager 2002; Malerba 2004; Weiermair 2006; Hall and Williams 2008; Halkier 2010). Such characteristics would seem to make tourism an area of socio-economic activity in which path dependency would be particularly pronounced because of a likely shortage of actors with sufficient resources to engage actively in path creation - and hence make tourism destinations very conservative when seen from a cluster perspective. In recent decades the concurrent explosive growth of internet-based services and EU deregulation of the European airspace has lead to a rapid spread of low-budget airline business model, and this has greatly increased the competitive pressure on destinations across Europe. Especially coastal destinations in rural regions in north-western Europe which are

not served by Ryanair et al. suddenly had to cope with the fact that large parts of their traditional visitor-base were now tempted away by new and exciting tourist destinations that had become visible, accessible and relatively inexpensive. In contrast coastal-rural destinations were increasing seen as expensive and, indeed, boring (e.g. Turismens Udviklings Center 2000). The aim of this paper is to analyse the processes through which coastal-rural tourist destinations try to reposition themselves in the increasingly competitive market for tourist experiences, focusing particularly on the role of access to knowledge from outside the region and/or sector. The theoretical framing of the paper is an attempt to apply the concept of path plasticity as an alternative way of conceptualising gradual change (Strambach 2011), breaking away from from the polarisation between path dependency and path creation. The substantial focus of the paper reflects the assumptions about coastal tourism destinations as clusters that 1) extra-regional sources of knowledge are particularly important in destinations where international visitors are a significant part of the customer base, and 2) the well-established complexity of tourism experiences makes combinatorial knowledge essential in developing new and more competitive offers, e.g. when it is attempted to make cultural or culinary heritage a central part of the tourist experience. As an inward-looking nature of knowledge processes also in coastal-rural destinations would appear to be pronounced (Halkier 2010; Halkier et al. 2010), knowledge actors that are at least to some extent external to the destination – e.g. economic development bodies, private consultants, or public knowledge institutions – can be expected to potentially play important roles in bringing about even changes of a fairly incremental character, and the role of such organisations in furthering path plasticity through their interaction with private and other actors within tourist destinations will therefore be of particular interest. The paper adopts a case-study based approach, exploring two coastal-rural destinations, Toppen af Danmark and MariagerFjord in North Jutland, Denmark.

## *Gateway K1* **GLOBALIZATION OF CLUSTER SUPPLY NETWORKS: HOW IS KNOWLEDGE FLOW AFFECTED?**

## Lise Lillebrygfjeld Halse, Molde University College, Specialized University In Logistics, NORWAY Ove Bjarnar, Molde University College, Specialized University In Logistics, NORWAY

The recent decades a gradual globalization of cluster has taken place, which has been facilitated by reduced trade barriers, improved communication technologies and reduced transportation costs. Through globalization cluster based firms to a new extent are players in multiple knowledge networks, production networks and value chains on multiple geographical scales. The purpose of this paper is to study how cluster companies take advantage of knowledge acquired through global 'pipelines' (Bathelt, Malmberg and Maskell, 2004) and what consequences this have for the knowledge exchange between companies internal to the cluster. Cluster companies may have different strategies and goals when they are making global connections, which we analyze along the dimensions 'exploitation' and 'exploration' (March, 1991; Nooteboom, 2006). Example of an 'exploitation' link is when a cluster company is outsourcing parts of its value chains to low cost locations. The goal is to reduce cost, and the cluster company does not make any explicit effort to acquire knowledge from the region which the activities are outsourced to. An 'exploration' link is forged when cluster companies establish cooperation either through acquisition or contracts with companies situated in other regions, where the aim is to get access to market or technological knowledge. This paper discusses the implications of these two strategies for knowledge flow and innovation within clusters that throughout history have been nurtured by the regions' socio-cultural environment. From recent literature, there are reasons to believe that these strategies have different implications for regional innovation. There is however, a need to explore the texture of knowledge flow much more in detail to in order to reach more conclusive answers, and suggest implications for understanding the effect of globalization on cluster dynamics. A case study of the maritime cluster in North-West Norway is performed in order to address these research questions. The cluster is part of the offshore service sector of Norway, and includes a group of co-located firms that easily fulfils the criterion of representing a spatial agglomeration of similar and related economic activity. The end products of the cluster are highly unique ships tailor-made mainly for the offshore service market. Over the last decade there has been an increasingly globalization of the cluster, where activities such as construction of hulls and also engineering, have been outsourced to low cost locations. Furthermore, companies with a long history in the cluster have established contact with regions outside the cluster in order to tap into and explore global knowledge bases. International companies have also established themselves in the maritime cluster in order to get access to the local knowledge base, which is considered being world leading in its field. Data is collected through in-depth interviews and through observations in meetings in central cluster companies, and with subsidiaries or partners in China, the Netherlands and Brazil.

#### Gateway G

# THE SPATIOTEMPORAL TRANSITION OF CHINA'S JINGJINJI METROPOLITAN AREA: DETECTION, MODELING AND PROJECTION

## Ruibo Han, University of Ottawa, CANADA Huhua Cao, University of Ottawa, CANADA

It has long been recognized that cities are significant drivers of local economic development, however, their importance to regional development is not yet fully appreciated. Though many models have been developed to depict the dynamics of cities at local scale, few can be applied to a larger spatial scale. A Cellular Automata (CA) model is one that can be used on a regional scale to reflect urban evolution in terms of local interactions, where space and time are considered as discrete units, and space is often represented as a regular lattice of two dimensions. CA offers a unique and innovative approach to the study of urban systems and there has been a wide application of CA-based models to urban systems at local scale. This article explores the applicability of the CA-based SLEUTH model to the area of regional urban growth management. SLEUTH model only incorporates physical factors that shape urban development, and the failure of incorporating socioeconomic factors would limit the utility of the model, both in terms of simulating historic growth patterns and in predicting future scenarios of where the new urban. This articles also attempts to overcome this limitation by including socioeconomic variables into the model. Taking the JingJinJi Metropolitan Area (Beijing-Tianjin-Hebei) in China as the area of study, this article simulates the dynamics of urban growth, as well as future development scenarios by integrating remote sensing, GIS, and dynamic spatial modelling technologies. Primarily, this article attempts to examine the urban spatial growth and landscape changes of the JingJinJi Metropolitan Area since the late 1970s using a time series of satellite images. The SLEUTH model is then applied to simulate urban growth and analyze the major driving forces behind the observed growth and change. Finally, two potential urban growth scenarios are proposed under different environmental and development conditions to predict the urban growth of this cluster over the next decade. Through the calibration with historical data, these results prove SLEUTH; s ability to explain the spatial pattern of urban growth, as well as to simulate urban dynamics, and forecast developing tendencies at regional scale. In order to interpret the urban growth mechanism of the JingJinJi Metropolitan Area under China; social, economic and political environment, five factors (Urban policies, Industry restructuring, Rural-urban migration, Reclassification of urban boundaries, and Transportation network) are further discussed to understand their driving forces in the urban transition.

### Gateway I ADAPTATION WAYS OF LOCAL GOVERNMENTS TO THE CROSS-BORDER SUBURBANIZATION

## Tamás Hardi, Széchenyi István University Doctoral School In Regional Science and Economics, HUNGARY

Cross-border suburbanisation is a relatively new, specific urban development phenomenon, whose appearance requires the joint impact of several factors. Free border crossing and moving between member states, the freedom of ownership enable the cross border expanding of urban areas constrained by state borders. Under adequate geographical circumstances the urban population (and services and other actors in economy) takes advantage of this opportunity (eg. Trieste, Geneva etc). Since appearing of the phenomena in our region(2005) we conducted empirical researches in the suburban areas of Bratislava on the Hungarian and Slovak sides as well. Besides of the interviews a questionnaire survey was conducted, and we organized thematic focus groups for representatives of different authorities, civil groups and public services. The phenomenon of cross-border residential mobility, suburbanisation started intensively after 2007, and first concerned two villages along the border: Rajka (which is practically neighbour to Bratislava) and Dunakiliti, which is separated from the administrative area of the Slovak capital city by the Danube River. These are still the villages mostly concerned by suburbanisation; by now approximately 30–40% of the inhabitants of Rajka and some 20% of the population of Dunakiliti are Slovak citizens. After the first migrations, the increased real estate prices led to the appearance of Slovak home owners in the second and third row of the settlements. Several new conflicts also emerged over the years, partly related to the phenomenon of suburbanisation (a new suburban population, fast growth of the number of inhabitants) and partly to its international character (language, ethnicity, taxation, use of public services, etc.). At the level of the local governments, the problems are accumulated. It is hard for the municipal governments to keep up with rapid population increase even within the same country, because the revenues do

not increase just as dynamically, but they have a responsibility to provide services. In this case, in addition, the new inhabitants are foreign citizens who do not pay taxes in Hungary; accordingly the municipal governments receive less state support or do not receive any support for them at all from the Hungarian redistributing system. This issue is still to be managed; probably a special agreement of the two states will be necessary for the solution of the problem. On the other hand the local actors have to adapt to this situation, to ensure the everyday life of the new and the 'original' inhabitants equally. The study examines the reasons, consequences, effects of the phenomenon as a model and shows its deviations from inner 'traditional' suburbanization. We examined the role, charges and the new challenges of the local authorities during this process, and we tried to find the typical ways of local governments, with which they want to adapt to the new situation. We can distinguish several strategies from the seclusion to the 'laissez faire' one. These strategies are very similar to the known types, which were examined in the agglomerations of any big cities, but there are new motivations due to the differing citizenships and ethnicities.

## Gateway G CITY-REGION: ATLANTIC GATEWAY

#### John Harrison, Loughborough University, UK

There is a clear need for other parts of the UK to complement the economic drive of London and the South East, rebalance the UK economy, and to make a real contribution to national and international competitiveness. Cityregions are widely recognised as key to this. Nevertheless, initiatives branded as city-regional have, to date, resulted in nothing more than a patchwork quilt of assorted, weak, and often contradictory and overlapping initiatives that have failed to live up to expectation. It could be argue that city-regionalism in England has appeared more like a firework displace that an illuminating policy panacea, each initiative being launched with a crescendo of noise, only to sparkle for a short time, before appearing to fizzle out and fall slowly back to earth. Nonetheless, and despite widespread criticism, there is a growing political recognition that city-regions are increasingly important for implementing many of the UK's core economic, social and public policies, as well as empowering local communities therein. This is clearly evident in the establishment of Local Enterprise Partnerships in 2010/11 as the UK Coalition Government's preferred model for subnational economic development, but already, this initiative is the focus of much scepticism. The purpose of this paper then is to explore an alternative model of city-region development, much less evident in popular political discourse one which might offer a radically different alternative to more conventional statist approaches. The history of North West England is one of innovation, tenacity, opportunity, and enterprise and the modern day version of this may centre on the bold and unique vision of the Atlantic Gateway Strategy (AGS), which aims to establish Liverpool-Manchester as a globally-competitive urban area. Nevertheless, the area covered by the AGS remains one of the most socially and economically polarised. In addition the AGS comprises two city regions which, while they interlock, broadly speaking operate in isolation and independent of each other. The brainchild of Peel Holdings, a leading infrastructure, transports, and real estate investment group in the UK, the AGS is an important lens through which to address current gaps in our knowledge of city-regions, in particular the opportunities and barriers to achieving better integrated policymaking across a functional geography, because it is radically different to the government's Local Enterprise Partnerships (and other previous city-region initiatives). First, the AGS covers a city-region geography; not simply a sub-regional functional economic area. Second, the AGS recognises overlap between functional economic areas. Third, the AGS is not centrallyorchestrated by the state. Fourth, the AGS is business-led (in part at least) as opposed to local-authority led. And fifth, Peel clearly has money to invest. The aim of the paper is thus to explore the tensions in the AGS - namely, Peel's motives, vision, and capacity - in order to shed new light on contemporary city-region debates over who stands to gain/lose from particular city-region constructs and initiatives.

## Gateway I THE THEORY OF BORDERS: THE COLLECTIVE MEMORY BORDER-EFFECT

#### Beatrix Haselsberger, Vienna University of Technology, AUSTRIA

European spatial planning has emerged in a way that has (mostly) ignored the complexities associated with national borders, tending to take a monochromatic view of them as either 'closed' (external borders of the EU) or 'open' (internal borders of the EU), often rooted on a singular view of either a 'space of places', or a 'space

of flows' (after Castells 1996). But this view denies the much more complex, shaded reality of borders, which in reality are ambiguous human constructions (cf. Paasi 2009; O'Dowd 2003), comprising a set of overlapping boundaries and which are moreover constantly in flux (more than might be imagined at first sight) (Haselsberger 2010). This provides a certain understanding of why properly working cross-border networks are rarely found throughout Europe despite the many financial support programmes and institutional frameworks set up by the European Union (cf. Dühr et al. 2010, de Vries 2008). Assuming that the planning systems mismatch is not the main root-cause of the problem, as can be learnt from successful cross-border cooperation projects (Fürst 2009), I am arguing that the missing of a truly trans-cultural understanding has to be regarded as one of the reasons why it is so difficult to build up long-lasting and effective cross-border cooperation networks. However as (planning) culture is constantly in flux and moreover beliefs, perceptions, feelings and emotions of different social groups and societies are hard to grasp (Friedmann 2005; Hofstede 2001, Knieling & Othengrafen 2009), it is not surprising that these complex aspects so far have been recognised only as 'taken-for-granted' elements of (planning) culture in the planning research debate. Arguing that this is not enough I have elaborated an analytical model, with which it appears to be possible to address this subconscious and 'taken-for-granted' dimension of planning. The innovative aspect of my approach clearly lies in combining collective memory and planning culture theories and debates and provides an enlightening pathway of how to grasp and unpack 'takenfor-granted' generalisations about 'the others', which are sometimes manifested in form of negative stereotypes or even prejudices within a planning culture. Doing so it contributes substantially to the building up of transcultural understanding in a particular border-region and consequently to the overcoming of social separation due to a (national) border. The main objective of this paper is to examine the collective memory effect on crossborder cooperation practices in Europe and more precisely to figure out to what extent subconscious collective memories influence formal planning decisions in general as well as the quality and success of cross-border cooperation processes in particular. However, rather than searching for the cultural nucleus of cross-border planning practice throughout Europe, I want to establish a theoretical framework model, which is capable to examine the question of how proper trans-cultural understanding can be build up in different cross-border regions. I am assuming that if this aspect is neglected, this may inadvertently legitimise the stereotypes we hold of 'the others' but also vice versa and as a consequence hampers cross-border cooperation in practice

#### Gateway D

## CHANGING DESIGN PRINCIPLES CONCERNING THE CO-EXISTENCE OF WORKING AND LIVING IN URBAN PLANNING OF AMSTERDAM FROM THE 1870S TO 2011

#### Birgit Hausleitner, Delft University of Technology, NETHERLANDS

The city of Amsterdam, like many other Western European cities, is facing more and more urban redevelopment projects in which one of the major aims is to achieve or increase the liveliness of the concerned neighbourhoods (Structuurvisie Amsterdam 2040) by producing compact mixed use areas. Micro-businesses are a component of the urban living-working mixture. Writers like Jane Jacobs (1961) already described that they contribute to the liveliness of urban areas; therefore they can be understood as indicator for urban vitality. Due to their small size, micro-businesses can be combined in different ways with housing units, which makes them more compatible with a residential primary use than bigger production or service facilities (compare Grant in 2002). Cities are, according to Jane Jacobs (1961), 'the natural economic home of immense numbers and ranges of small enterprises.' But the lack of built and population density, an urban tissue that fails to accommodate diversity and does not foster the interaction between different groups of people, leads to what she calls 'dull gray areas'. Montgomery (1995) emphasizes the importance of variance of uses in general and the special role that smallscale businesses play. The most lively and interesting parts of cities are places of complex variety, where very often small-scale-business activity is well represented. The key to successful city places is therefore diversity, supported by relatively high numbers of people with different tastes and proclivities'. This article describes how differently the mixture of working and living was located and organized in the urban tissue of Amsterdam since the 1870s. Further the article presents which impact each spatial plan had at its time and still has today on the co-existence of living and working. Following urban plans are part of this investigation: the 'Kalff Plan' from 1877, the Plan Zuid of Berlage in 1917, the General Extension Plan in 1933, the urban renewal and structural plans of 1969, 2003, 2004 and finally the Structural Vision of Amsterdam in 2011. Conclusions from interviews with planning professionals and other stakeholders involved in urban development allow to evaluate which impact the plans still have today on the integration of uses. The review of urban plans shows that certain morphological properties like urban built density strongly differ from one to the other plan. The special focus of the paper is on the one hand to distinguish the general physical structure each plan produced and on the other hand how the mixture of uses was actually realized. Tracing the urban design rules inscribed in the different plans allows to approach the recent stratified urban tissue and investigate which pattern of urban form contribute to a co-existence of different uses with reduced disturbances among them.

## Gateway D1 TOWARDS POST-POLITICAL URBAN GOVERNANCE? RECONCILING ECONOMIC GROWTH AND SOCIO-SPATIAL JUSTICE

## Nicola Headlam, University of Newcastle, UK Iain Deas, University of Manchester, UK

This paper explores recent experiences of city governance, focusing in particular on the putative emergence of entrepreneurial governance strategies in different international contexts, and considering whether this represents a new orthodoxy in urban policy. It explores the complex and reticulated nature of urban governance by drawing upon Social Network Analysis methods to assess city-region institution-building efforts in English cities, looking at the recent experience of the Local Enterprise Partnerships. The paper concludes by considering the degree to which urban governance can be considered 'post-political' and speculating on the scope for a future deepening in the extent of neo-liberal governance strategies and mechanisms.

#### Gateway G3 THE FINANCIALISATION OF THE COMMERCIAL REAL ESTATE SECTOR IN THE UK: A LONG VIEW

## John Henneberry, University of Sheffield, UK Neil Crosby, University of Reading, UK

The paper takes a long-term perspective on the evolution of finance capital and its influence on the commercial real estate sector. It stresses, within the context of the UK, the temporal particularities of the process of financialisation. The relatively sudden structural shift towards neo-liberalism since the 1980s and its implications for the funding of the production of the urban built environment are important. However, the earlier history of property investment needs to be taken into account. This prepared the ground for recent change because it created an established, accepted market for direct and indirect property investment and a set of calculative practices to support property investment decisions. From this perspective, there is nothing millenarian about financialisation. Rather, it represents the latest stage in a much longer story and many of the supposedly new and different features of financialisation are neither. The paper demonstrates that some fundamental features of the UK commercial property investment market have a surprisingly long provenance. The City of London grew rapidly between 1850 and 1870 and it was in this period that the first companies devoted to the development of and investment in city offices were founded. Led by institutional investors such as the Prudential, the basis of portfolio management strategy was well established by the early 20th century. As the property investment market matured, investors defined and formalised the characteristics of properties that were of interest to them. These included location, design, tenure, tenant and lease terms; each of which has a significant influence on a property's investment performance. Many other basic aspects of Britain's modern property investment market emerged in the 1930s, including the growth of market intermediaries, the 'securitisation' of investment property and the development of funding links between financial institutions and property developers. Subsequent developments built on these foundations. The close identification of the property literature with the dominant perspectives and practices of the property sector provides a window on the shifting power relations within the sector. Calculative practices embody the logics and further the interests of those with power. Consequently, changes in practice are not simply the result of technical development but are also an indication of whose techniques and rationales are being articulated. An examination of the evolution of property investment appraisal considers its role in estimating the worth of a property to an investor or group of investors (investment value) and in estimating the exchange price of a property in the market (market value). There is evidence to support the gradual development of the cash flow approach to investment appraisal favoured by and imported from the financial markets - as a 'formalism' (indicating that the formula / method is well developed and understood and its implications are also well understood) and, possibly, a 'form' (a fully established and accepted formula / method). But this does not amount to predominance / hegemony over the property sector. The cash flow approach is only fully established in the role of investment value. It may be hypothesised from the literature and structure of ownership of the property investment market that it is used to

advise the part of the property sector closest to the financial markets; the financial institutions, companies and funds who invest in other financial assets and / or use capital from the financial markets. In the role of market value it is clear that the evolution of cash flow is less well developed and may have the status of a 'formula'. This suggests that it has gained some support but has not displaced the alternative approach to investment appraisal.

#### *Gateway J1* COLLABORATION NETWORKS, DYNAMICS, AND SPACE: CHANGES IN THE REGIONAL STRUCTURE IN THE CHINESE BIOTECHNOLOGY RESEARCH SYSTEM SINCE 2001

## Stefan Hennemann, University of Giessen, GERMANY Ingo Liefner, University of Giessen, GERMANY

In science-driven industries, where basic research and economic application is intertwined, public research agents are an interesting cooperation partner for the industrial sector. China has interesting advantages over other national innovation systems in this respect, since biotech in China develops largely through statesponsored programs, forming an epistemic community. Compared to other empirical studies that use cases or patents, we are proposing a combination of the comprehensively available bibliographic databases (SCI-Expanded and China's Chongqing VIP) and use co-authorships to build collaboration networks between public and private research agents. The Chinese biotech network has been growing linearly from 2001 to 2009, showing spatial collaboration patterns that are stable over time, although the network is changing its structure from randomness towards a scale-free system. Interesting is the general spatial pattern: firstly, the collaboration probability is negatively related to the spatial distance between the collaborating parties. Secondly, this is more significant for collaboration within the same province than across Chinese provinces. Inter-province collaboration shows features of random partner selection. Up to now, this pattern was only revealed for national and international collaboration and is usually explained with socio-cultural barriers of national borders. However, we found that the cross-province activities are significantly more relevant for the network functioning than the collaboration that is taking place within provinces. Thirdly, with these results, the theoretical assumptions concerning epistemic communities in field of biotech can be challenged. Therefore, our results are not only relevant for evaluating the spatial structure and dynamics in the Chinese biotech system and its integration into the global knowledge network. Moreover, the results raise new questions on the relation of socio-cultural aspects on the collaboration activity in complex systems in China.

#### Gateway C

## TIME-SPACE DIMENSIONS OF SHAPING SEGREGATED SOCIAL NETWORKS: TURKS AND NATIVE DUTCH IN TWO NEIGHBOURHOODS IN ROTTERDAM

## Aafke Heringa, URU, Utrecht University, NETHERLANDS Gideon Bolt, URU, Utrecht University, NETHERLANDS Martin Dijst, URU, Utrecht University, NETHERLANDS

Although policy makers would wish otherwise, mixed neighbourhoods hardly lead to ethnically and socioeconomically integrated social networks for their residents. Statistical analyses have shown relations between population compositions and inter-ethnic contact, but causality remains a problem. In addition, other studies show tensions between different groups within neighbourhoods and reduced trust and social participation in ethnically diverse neighbourhoods. To understand how segregated social networks are shaped and how intergroup contacts are built, we need to look at the time-space dimensions of the encounters people have in relation to their emotions, attitudes and the social forces that pull at them.

In this paper we present findings from our fieldwork in Rotterdam, where we followed native Dutch and Turks in two neighbourhoods (one 'ethnic concentration neighbourhood' and one 'mixed' neighbourhood) and studied their life path and daily paths through time-space and their social interactions. The findings show that public spaces, like streets, transportation and amenities, are ill-qualified to stimulate positive interaction between people, but these are often the only spaces where people of different backgrounds encounter each other, as recruitment for activities in other spaces (like schools and sport clubs) often takes place through the existing social network and information channels and people are inclined to interact socially with the people they already know and not with strangers.

Differences exist in the scale of the geographic distribution of people's social networks and subsequently, their actual action spaces. The Turks mainly have their social contacts within the neighbourhood and in their hometown in Turkey, thus few of them visit other spaces in the Netherlands, whereas the Dutch have their social networks more distributed in the city, region and even country through residential moves of their own and of their social network members . Work and education are the main drivers for Turks to travel outside their neighbourhoods and meet new people. As such it is the mixing at work and school that matter for ethnic integration. The population composition of the city and region may be more relevant for inter-ethnic contact than that of the residential neighbourhood. In addition, there are differences between groups in their social orientation and the extent to which they focus on building and maintaining contacts with neighbours, family or classmates and colleagues: Dutch people wish to keep neighbours at a certain social distance and focus on club members, classmates and colleagues for their social contacts, while Turks are more oriented towards family and neighbours and also select their neighbourhood on this basis. Cultural and gender differences can also be seen in the type of meeting place where people tend to socialize with their friends (e.g. at home, at school, in the street or in bars), which is also related to people's roles as breadwinner, parent or child. This implies that the success of mixing policies depends among others on the cultural context and the extent to which people's relationships in a society are neighbourhood-based.

## Gateway M1 PERIPHERALISATION THROUGH THE METROPOLITANISATION OF 'THE REGIONAL': INTERSECTING 'OLD' AND 'NEW' REGIONALISM OF THE SKÅNE AND ØRESUND REGIONS

#### Tassilo Herrschel, University of Westminster, UK

With a growing emphasis on metropolitan areas as beacons of national and/or European (EU) economic competitiveness – questions have arisen of the territoriality of regions as part of the scalar hierarchy of spatial governance and policy. Some of this shift is reflected in debates on 'new regionalism' with its emphasis on the variability, informality and relational nature increasingly to characterise regional governance and, by implication, territoriality as well. The emphasis on city regions, and metropolitan areas generally, as the areas that matter (economically) most, and the communicative connectivity between them as part of the ongoing competitiveness agenda, other, non-urban and not connected areas, actors and interests are in danger of 'falling by the wayside'. Not being part of the main political agenda and – actual and/or perceived – relational networks of competitive politics and economics, risks adopting a selective and discriminative view producing of, and approach to, regional space. It is seen as a patchwork of 'nodes' that matter, and indistinguishable 'other' areas and actors ' in between', that do not seem to matter so much and thus find themselves in danger of becoming 'invisible' and marginalised in political agendas. They also find themselves increasingly voiceless in the framing of development strategies. This paper explores these changes and their likely implications for the example of the formally institutionalised region of Skåne in southern Sweden, as it intersects with the virtual 'new' Øresund Region'.

#### Gateway N KEYNODES: SPATIAL DEVELOPMENTS AT TRANSPORT NODES IN THE NETHERLANDS 2000 -2010

## Hans Hilbers, PBL Netherlands Environmental Assessment Agency, NETHERLANDS Danielle Snellen, PBL Netherlands Environmental Assessment Agency, NETHERLANDS

Since the early nineties spatial development at transport nodes has special attention in Dutch urban planning. The ABC location policy was an international famous policy in this field. In the new Draft National Policy Strategy for Infrastructure and Spatial Planning the relationship between infrastructure and spatial development at nodes is once again in the picture, this time with a focus on multimodal accessibility. Nodes are expected to play a role in the economic performance of regions and in the robustness of the transport network. However, it is as yet unclear how this role must be fulfilled. In this paper we will take a closer look at recent developments at transport nodes (in varying measures of multimodality) in order to learn for future plans. Daily travel behaviour differs a lot between different types of locations. At inner city locations cycling and public transport are dominant. On edge-city motorway locations car use is dominant. The surroundings of railway stations are mostly already built up and relatively expensive and therefore growth (new developments and activities) is

easier on greenfield locations. True multimodal accessible locations are rather scarce. We analyse developments around transport nodes in the Netherlands. Which share of jobs and inhabitants has a railway station or a motorway exit within reach? Has this changed during the last decade and if so, is this caused by the creation of new nodes or by changed land use and densities around current nodes? What are the differences between different kinds of nodes: intercity station, suburban rail stops with or without motorway exit and other motorway exits? We analyse different economic sectors and look at the development of industry, logistics, consumer services, business services and the public sector on the different type of locations. We will also analyse the change in public transport services: what are the changes in rail services on the nodes? We also analyse the differences in effects on travel behaviour to and from transport nodes. What is the role of public transport towards city centres and suburban nodes? To what extend can public transport be an alternative for car use and can both be seen as alternatives of equal quality? What is the role of other aspects like location quality in this discussion?

#### Gateway K EUROPE'S CHANGING GEOGRAPHY

## Ulrich Hilpert, Friedrich-Schiller-University Jena, GERMANY Nicola Bellini, Scuola Superiore Sant'Anna, Pisa., ITALY

At a European level, regions have become particularly important partners for the European Union to realize its policy goals. Thus, regions have strengthened their contribution in European development and their role for processes that are realized across borders. This relationship and additional funding from the European Union have allowed regions to strengthen their activities and to find partners for joint projects. Such activities have frequently been carried out through cross-regional collaboration among regional governments, which has allowed for regional partnerships with similar situations, problems, orientations or socio-cultural backgrounds. New trans-regional collaborations and partnerships were initiated and over time they grew in importance for ongoing integration processes throughout Europe. Now, these regions formed larger networks spreading out through parts of the continent, forming macro-regions. While in some cases these networks were able to build upon existing structures and were appropriate to support further development and a level of macro-regional cohesion, in others enhanced development was not possible. In addition, regions in Europe found opportunities to collaborate and formalize networks among different regional partners which did not achieve the level of the macro-regions. Here, again they share particular situations and interests. Both processes, building macro-regions and inter-regional networks of collaboration, have an impact upon and change the geography of Europe - new regional activities create a changing geography. The different strengths among these processes influence the intensity of such changes, and the more participating regions benefit and are involved in these activities, the more they will change the geography. Thus, there are changes and there are differences in the intensity of such changes; but, as a whole, Europe's geography does not remain the same. Based on empirical research, this presentation explores such processes at a European level, where macro-regions are identified within programs supporting collaboration. it highlights the similarities of opportunities and processes within macro-regions as well as the divergences within such opportunities and processes. In addition, it analyses regional networks of collaboration below the level of the macro-regions. Within such contributions, the internal divergences among larger regions are considered, and are discussed again within the conclusions. These analyses will indicate both, when internationally important regions are part of the macro-regions and when they are linked to collaborators in geographically different parts of Europe or in other parts of the world.

Gateway C

## FRAGILE RECOVERY? POST-RECESSIONARY HOUSING AND LOCALITY CHANGE IN THE UK

Stephen Hincks, University of Manchester, UK Ken Gibb, University of Glasgow, UK Cecilia Wong, University of Manchester, UK

The depth and severity of the global financial crisis became fully apparent in mid 2007. Based on the quarterly GDP figures, the UK experienced the longest recession between the second quarter of 2008 and the third quarter

of 2009 since the publication of such quarterly data in 1955. It was also the first time that the UK economy had the largest quarter-on-quarter decline since 1980. As in previous recessions, the UK housing and labour market has responded unevenly and inconsistently at the local and regional level. It has long been acknowledged that housing market processes operate below the national scale and across administrative boundaries. In the UK, administrative boundaries have often taken centre stage in housing market analysis and planning policy development for understandable reasons. The adoption of administrative boundaries helps to reduce complexity in the policy management process and provides an accepted political framework within which policymakers and professionals have become comfortable working. However, administrative boundaries have little functional meaning in the housing market and as a result an over reliance on their adoption has restricted the development of more nuanced understandings of housing and locality change within a framework of functional planning The notion of identifying and applying functional housing market areas (HMAs) when geographies. undertaking strategic planning has gained increasing salience in academic and policy circles in the UK. Drawing on a national set of HMAs defined for England and a set of housing and locality indicators developed as part of the Joseph Rowntree Foundation Housing & Neighbourhoods Monitor project, this paper aims to assess the mixed and fragile housing market and broader locality changes that are ongoing in different parts of the UK following the most recent recessionary impacts. The focus here is on (a) the combination of neighbourhood types and key housing indicators, and (b) policy responses operating in different parts of the UK. The paper sets up the conceptual and methodological basis of the analytical approach as set within a functional housing market approach before examining the indicators in levels and over time. The paper's final main section looks at key land, development and housing policy responses in three UK nations in the light of our findings.

### *Gateway M* INFRASTRUCTURE DELIVERY IN ENGLAND: INSIGHTS FROM LOCAL PLANNING PRACTICE

## Vivien Holt, University of Manchester, UK Mark Baker, University of Manchester, UK Stephen Hincks, University of Manchester, UK

Promoting the development of infrastructure is attracting much public attention in the UK as a means of stimulating economic recovery. Striving to achieve improvements in the planning and delivery of major infrastructure projects of national significance understandably attracts great political and academic interest and attention. However, if a more integrated, co-ordinated and strategic approach to the delivery of physical, social and green infrastructure is to be achieved across all spatial scales, infrastructure delivery also needs to be operating effectively at a sub-national scale. Previous research has focussed on the role of infrastructure delivery in the execution of local development plans (e.g. DCLG, 2008; Baker and Hincks, 2009; Lord, 2009), and on the preparation of local infrastructure delivery plans and their relationship with core strategies and newly-formed local enterprise partnerships (e.g. Morphet, 2011). However, the empirical basis of much of this research is often either somewhat dated, given the rapid developments over the last two to three years; focussed on particular case study areas that may not be at all representative of a wider picture; or based around secondary data and web searches of a fairly generalised nature. Information thus remains limited about the ways in which local authority planners are interacting with their corporate colleagues, and the spectrum of external stakeholders and delivery partners, to plan and deliver essential infrastructure requirements at the local level. Indeed, little is known about the degree to which integration and partnership working have permeated contemporary practice across English local government, despite the importance placed upon collaborative theories and practice in the academic literature. In an attempt tofill this research gap, a survey has recently been conducted by researchers at the University of Manchester to consult local authority planners about the extent to which they are involved in infrastructure delivery, and to canvass their views on the current level and effectiveness of infrastructure planning at the local and regional level. This is the first national online survey to address these issues. The survey has benefitted from the generous assistance of the key professional planning bodies and interests in England: the Royal Town Planning Institute (RTPI), the Planning Officers Society (POS), the Town and Country Planning Association (TCPA), and the Planning Advisory Service (PAS). The survey responses were collected over a period of 3 months, up to December 2011. The level of interest in the survey has been very high and planers from across the whole of England have provided an invaluable insight into their own experiences. Information from the survey will be used to highlight best practice examples and to identify any commonly experienced obstacles which appear to be inhibiting local infrastructure delivery. This conference paper presents the initial research findings from the survey, thus providing important insights into current planning practice and infrastructure delivery in the UK

## Gateway G DEALING WITH POLYCENTRICITY: A REVIEW OF METROPOLITAN DEVELOPMENT POLICIES IN ROTTERDAM-THE HAGUE, LINKÖPING-NORRKÖPING AND THE POLISH TRI-CITY REGION

## Marloes Hoogerbrugge, European Metropolitan Network Institute, NETHERLANDS Koen Hollander, European Metropolitan Network Institute, NETHERLANDS Evert Meijers, Delft University of Technology, NETHERLANDS

It is widely agreed that over the last century, the spatial structure of cities transformed from a monocentric model into the polycentric city. Yet, the process of spatial expansion continues further. The geographical scope of social and economic processes (such as commuting, leisure and social trips, inter-firm relations, and business to consumer relations) has increased ever more, which leads not just to more complex urban-rural relations, but also to new functional linkages at higher spatial scales between historically distinct and once relatively independent cities. What is urban nowadays spreads out over a vast territory encompassing many urban and suburban communities that once were relatively distinct entities but that are now increasingly linked together by infrastructures and flows extending over an increasingly wide metropolitan territory. This coalescing of cities into regional metropolitan entities results from either a process of 'incorporation', when dominant cities extend their sphere of influence over ever larger territories, thereby incorporating once independent smaller cities, or, it results from the 'fusion' of nearby located cities, leading to an (at least morphologically) more balanced settlement system. While there has been a strong rise in academic interest in the 'polycentric metropolis', less attention has so far been paid to actual metropolitan development strategies for such regions. This obscures our understanding of how cities could and should deal with polycentricity: how can they exploit their joint critical mass to develop the benefits of a large metropolis in a network of small or medium-sized cities? In this paper we explore the evidence-base for such metropolitan development strategies in 'fusion-mode' polycentric city regions in Europe, applying a case study approach. We present results from policy analyses and a series of interviews with stakeholders in three such 'fusion-mode' polycentric city regions: Rotterdam - The Hague in the Netherlands, Linköping-Norrköping in Sweden and the Tri-City region (Gdansk-Gdynia-Sopot) in Poland. We identify metropolitan development strategies that have stimulated the integration between the cities within such polycentric city regions in ways that have been beneficial to the city region at large. Likewise, we point out local policy practices that hamper the integration of polycentric city regions. In doing so, we distinguish spatialfunctional, cultural and institutional dimensions that play a (fostering or hampering) role in the integrated development of the city region.

#### Gateway O

## RISKS OF EXTERNAL RESOURCES OF LOCAL AUTHORITIES IN HUNGARY - HIGH-EMPLOYMENT ECONOMY DELIVERING ECONOMIC, SOCIAL AND TERRITORIAL COHESION IN HUNGARIAN MUNICIPAL SECTOR IS REACHABLE WITH SMART FINANCING

## Iván Hopkó, University of Pécs, HUNGARY

The transition to a market economy in Hungary began 22 years ago. The process targeted first and foremost the financial infrastructure and its institutions (e.g. bank reform, tax reform) and the rapid transformation of ownership relations (privatization). In light of the three dimensions of the Europe 2020 Strategy new definition of state tasks, re-thinking of the range of public services and that of municipal finances is necessary. The author aims to analyze the debt service and opportunities of local governments from rural and settlement development point of view and the new pattern of state-municipal relationship. Local authorities at district (járás) and town level are also often able and willing to provide assistance, particularly for new projects or those likely to revitalize failing enterprises. Although cash grants are rarely available at this level, valuable help can often be given in other ways. Possible examples are the provision of cheap land - in some cases even free of charge assistance and help with finding and training employees and introductions to other reliable local businesses as future suppliers or customers. Many local authorities have established formal programs for the encouragement of local investment. Smart towns have established industrial parks as home for new businesses. Investors can essentially expect to receive appropriate premises with full infrastructure back-up services, thus enabling their management to concentrate - especially during the start-up stage - on matters specific to business. While the nature and extent of local government support varies by place and timing, appropriate contact with the local authorities is recommended in all cases of potential significance to the local community. The state, municipalities, investors, pension funds are all interested in smart, sustainable financing. From local and

regional economic point of view their financial and non-financial contribution to the new projects is essential. The author believes that in future regional and business models aiming for competiveness no longer the capital but aptitude, intelligence and skill will be decisive. The main conclusion of the study is that sustainable growth and high-employment economy delivering economic, social and territorial cohesion in today's Hungarian municipal, regional sector is reachable with smart financing and using 'Distribute to Originate' technique.

#### Gateway L IDENTITY AND DEMOCRACY, THE RENAMING OF PRETORIA, SOUTH AFRICA'S CAPITAL CITY

#### André Horn, University of Pretoria, SOUTH AFRICA

The renaming of South Africa's capital city of Pretoria to Tshwane is in the news for over a decade. With its identity in change it is a matter of interest to Europe, as it is for the rest of the world. This paper gives an insight into the renaming process, with a focus on a public opinion survey - one of the activities of the renaming task team. It revealed a multi-cultural society with conflicting interpretations of reconciliation, transformation and democracy. It is argued that South Africa today, despite 'democratisation', still remains an authoritarian state far from being a mature, deliberative democracy.

#### Gateway J1

### SPATIAL PLANNING AND TECHNOPOLE DEVELOPMENT: THE CASE OF HSINCHU HIGH-TEC CITY REGION, TAIWAN

## Wei-Ju Huang, Delft University of Technology, NETHERLANDS

The social, economic, spatial and environmental externalities of technopole development have been studied for decades. However, there has been less consideration of the relationship between spatial Planning and technopole development in terms of the role and mechanisms of spatial planning to accommodate the land supply pressure and to handle the externalities accompanying the success of technopole development. According to the agglomeration theory of the new economic geography, if the development of a technopole is successful it will create a circle of causation leading to growing varieties of goods and workers/ people and thus it will produce agglomeration forces. At the same time, land demands for accommodating various activities will be triggered. Competition for limited supply of land and public investments will rise among different sectors. Spatial planning needs to play a role between such developments and their spatial consequences and effects at different scales. The purpose of this study is to explore the role that spatial planning plays in responding to the spatial effects and conflicts of such type of developments. Specifically, it will explore how the spatial strategies are formulated in the development of Hsinchu high-tech city regions in Taiwan. Hsinchu city region is considered the technology and innovation hot spot of Taiwan, due to its high economic performance in the ICT industry. The emergence of Hsinchu high-tech city region followed the rapid development of Hsinchu Science Park (HSP), which was established by the Taiwanese government in 1980 to drive national economic growth. HSP has not only achieved the national goal, but has also been recognised as one of the most successful technopoles in the world. Its output value in 2010 is around 29588 million euro that represents 9.1% of the GNP of Taiwan. Currently more than 134000 people are working in HSP and most of these are living in Hsinchu city regions with their families. The strong agglomeration forces have created enormous pressure for the supply of land and pubic investments in the surrounding area, a serious issue for local governance since 1990s. Such externalities have also generated tensions between the central and local governments. In this context, several spatial strategies and planning projects have been proposed to handle the externalities as well as to maintain its competitiveness during the past three decades. Those projects offer a good opportunity to investigate the relationship between spatial planning and Technopole development over time. Based on understanding of the relation between institution and actors, an institutional approach and a regime analysis framework are adopted in this study. Besides reviewing second hand data, eighteen key persons from different sectors were interviewed. These interviews help to identify not only the primary actors in decision-making but also the interaction among them. This study concludes that although the legal framework of spatial planning system may have no fundamental change, innovative spatial strategies and planning mechanisms on local level can still be generated due to the dynamics of actor constellations and their interactions modes in the planning process. However, this

dynamics is deeply influenced by contemporary socio-political context, governmental structure and national spatial strategies of technopole development.

## Gateway I MORE THAN JUST FUNDING: THE ADDED VALUE OF LOCAL GOVERNMENT TRANSNATIONAL NETWORKING

### Christopher Huggins, University of Portsmouth, UK

The 1990s saw a growth in local government networking across national borders. This was facilitated by a number of contextual factors and the availability of European funding schemes which attached transnational or cross-border co-operation to the eligibility criteria. Conceptually, the notions of policy networks and multi-level governance accounted for the 'horizontal' relationships which characterize this form of transnational cooperation by sub-state actors. Consequently, a growing body of academic literature focusing on this emerged during the 1990s. Contemporary research in this field, however, is scarce, but interest is now being renewed in the wake of public finance pressures and a rise in localism. Yet, there remain a number of issues with the existing literature. Chief among these is a heavy focus on the role of transnational networking and cross-border co-operation in obtaining funding. Given the extent of EU funding for transnational activity such a preoccupation is to be expected, but it can lead to other important aspects being overlooked. Based on a review of existing literature and an analysis of local government documentation, this paper seeks to identify the rationale behind local government involvement in transnational networking and cross-border partnerships. It demonstrates that while this activity does indeed secure funding (and this is often the primary stated purpose for participation) there are many other benefits local authorities seek from this form of transnational co-operation. Among these 'added value' benefits are sharing knowledge, best practice and innovation with international counterparts and promoting local identities. By looking beyond funding motives a more detailed picture of local government networking and cross-border co-operation can be gained.

## Gateway O CULTURE AND PLACE-BASED DEVELOPMENT: A SOCIO-ECONOMIC ANALYSIS

## Robert Huggins, Cardiff University, UK Piers Thompson, Nottingham Trent University, UK

The greater focus on regional and local growth and competitiveness, and the related role of soft factors such as entrepreneurship and innovation, is impacting on the way that cultural factors are conceptualised within the political economy of places. This study seeks to define and measure two forms of place-based culture – community culture and business culture – as a means of developing a broader understanding of the notion of culture that is usually considered by the extant literature. As a means of examining the missing link between placed-based community and economy, this study establishes a number of community culture measures and assesses how these are associated with place-based measures of business culture, principally related to the notion of entrepreneurship. The study analyses the extent to which: community culture and business culture differ across regions in the UK; community culture is linked to business culture at the local and regional level. The methodology involves a statistical and econometric analysis of relevant data from localities, coupled with a comparative analysis of UK regions. The study finds:

(1) Considerable variability in the cultural characteristics across localities, as well between regions;

(2) The type of community culture embedded across localities and regions is often strongly associated with the prevailing business culture in these places, suggesting that community cultures have a strong symbiotic association with the prevailing socio-economic business culture across places;

(3) Culture – be it community or business – forms part of the place-based systems linking economic competitiveness and performance with societal well-being, with the cultural attributes of places acting as the glue forming the interdependency between the economic logic and societal logic of places.

In some regions the 'cultural glue' is a facilitating force enabling economic development and relatively enhanced levels of well-being, while in others it is a factor impeding the development of places in an economic sense, as well as pushing down relative levels of well-being. Furthermore, there is a link between business culture and well-being across regions; for instance, a strongly entrepreneurial business culture has a positive influence on improving mental well-being. With specific regard to Wales, it is found that:

(1) Wales as a whole can be characterised by a community culture based on social cohesion, caring, femininity, collective action and a general desire for fairness and equality;

(2) Due in part to its industrial heritage, Wales displays characteristics associated with greater social cohesion compared with many UK regions and nations;

(3) Wales displays the highest regional level of feminine or caring characteristics in the UK;

(4) Wales is generally more collective and equality-driven compared to the UK average; and

(5) There is a stronger desire for income equality in Wales compared to that in many other parts of the UK. Unfortunately, Wales' community culture traits are negatively associated with a business culture promoting regional economic development and competitiveness. In terms of overall happiness, the percentage of the Welsh population rating themselves as very happy is the lowest in Britain. Furthermore, Wales also displays the lowest proportion of the population with good health. The business culture in Wales is not enhancing new entrepreneurial activity, with the feasibility of such activities perceived to be relatively low. There are considerable cultural weaknesses in the Welsh economy that show little sign of quickly changing. From the perspective of policymaking in Wales, these findings represent a particular conundrum, i.e. would Wales benefit from a shaking off and changing of its cherished community cultural values to become a more atomistic, individualistic, and 'less caring' society? In respect of this cultural policy conundrum, policymakers should pay heed to two key issues. First, is the issue of cultural evolution and the reasoning why Welsh community culture has developed its current traits – the analysis undertaken suggests that the type of community culture existing in Wales is a response to the long-term erosion of what was once clearly a 'work-oriented' business culture. Second, it is important to look beyond the regional and more toward the local to assess how policy intervention may be best utilised - the analysis of Welsh localities finds that those with more socially cohesive communities are better placed to create stronger business cultures. These findings suggest that the focus of policy should be the enhancement of Wales' business culture, and that social cohesion represents a potential strength, rather than a weakness, which policymakers can potentially enhance as an economic development tool. It is concluded that the crucial role of learning, education and skilled work in shaping culture and aspirations remain the only real means by which Wales will be able to alter its destiny away from a future that increasingly appears to be one of irreversible decline.

#### Gateway K EDUCATION-JOB (MIS)MATCHING AND INTERREGIONAL MIGRATION. THE CASE OF UNIVERSITY GRADUATES IN ITALY

## Simona Iammarino, London School of Economics, UK Elisabetta Marinelli, European Commission JRC-IPTS, SPAIN

The socio-spatial dynamics of learning and knowledge formation are at the core of evolutionary economic geography (Healy and Morgan, 2009). Critical to such dynamics is the cycle of skills-creation by the university sector (i.e. the production of graduates) and the employment of those very skills. As academic research, within and outside the evolutionary tradition, has long pointed out (e.g. Nelson and Phelps, 1965; Vandebussche et al., 2006), the impact of graduates on economic performance and knowledge creation depends on the level of technological development of the area/region where they are located: an advanced region will benefit more than a backward one from a highly skilled labour force. In other words, the knowledge embedded in graduates needs to match or complement that of the regional economic and innovation system in order to generate economic growth. Understanding education-job (mis)matching is highly relevant also at the micro level, as overeducated workers tend to experience lower income levels and higher dissatisfaction. It is not surprising, therefore, that migration is seen as an increasingly important mechanism to escape (or prevent) overeducation (Quinn and Rubb, 2005; Hensen et al., 2009; Boudarbat and Chernoff, 2010; Venhorst and Cörver, 2011), especially in the case of young graduates, who are a particularly mobile segment of the society. This paper focuses on them, looking at how spatial mobility, among other factors, impacts on their education-job matching. The country of interest is Italy and, as well as looking at the country as a whole, we compare two of its largest and most attractive regions: Lazio, where the country's administrative capital, Rome, is located, and Lombardia, in the North-west, traditionally the Italian industrial core. By considering these two highly diversified and attractive regional economic and innovation systems, the study aims to give some hints on the territorial specificities of the interaction between local demand and local supply of graduates. We use an original indicator of educationjob (mis)matching and apply both ordered logit and probit models with self-selection to a dataset on graduates entry in the labour market produced by the Italian National Statistical Institute (ISTAT, 2010): the 7th edition of

the Indagine sull'Inserimento Professionale dei Laureati, covering the 2004 cohort of graduates, who were interviewed in 2007. In the survey graduates are asked (a) whether their degree was a formal requirement to access the current job, and (b) whether it was effectively needed. This allows building detailed indicators of job-education matching (Iammarino and Marinelli, 2011). Furthermore, the dataset provides rich information on job-characteristics, social background and university performance. The research has relevant implications for regional development and higher education policy. By studying the links between migration, academic background and education-job matching it gives insights on the skills most needed at national and regional levels. In turn, this allows evaluating whether local universities are aligned to the demands of the local economic and innovation systems. By comparing these different geographies through the indicated methodology, it will be possible to assess key aspects of the process of knowledge transfer from University to the labour market, shedding new light on the debate on Italian sub-national inequalities and on spatial evolutionary mechanisms.

#### Gateway J

## INVESTIGATING MALAYSIAN SMES IN CSR AGENDA: PERSPECTIVE FROM DEVELOPING REGION IN ASEAN

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Recent corporate social responsibilities (CSR) literature has been very much focused on multinational corporations (MNCs) (Ireland et al., 2010; Lu and Castka, 2009). As a result of that, CSR has become rooted agenda in the global business operation of MNCs, particularly in highlighting the importance of ethical behaviour of subsidiaries operation internationally. Therefore, an increasing number of MNCs have focused on producing more ethical conducts in the formulation and implementation of their managing social responsibility strategies. On the contrary, CSR has also been playing an important part in small and medium sized enterprises (SMEs) as is of increasing relevance and concern to SMES for being a supplier to MNCs, a recipient to international companies of donor funds and support, and as a significant economic player, mainly in developing countries (Lu and Castka, 2009; Luken and Stares, 2005). In Malaysia and Southeast Asia region, SMEs play a critical role in country's economic development and contribute to regional income generation, savings, training, stimulation of competition, aiding large firms, and introduction of innovation (Hashim, 1999). Recent CSR development in Malaysia is notable. Even though the initiatives are mostly address to the big size companies, the impact to the SME is also significant. SMEs are vendor to the big companies. Last year Malaysia Bourse launched Corporate Sustainability guide for the listed companies. Awareness campaign about the launching of ISO 26000 (Social Responsibility) was also actively conducted by the Malaysian Standard Users. Even though some scholars (Ahmad and Rahim, 2003; Ramasamy and Ting, 2004; Rashid and Ibrahim, 2002) say Malaysia is experiencing CSR at its infancy level but with such development it is not still clear what is the status of social responsibility practices by Malaysian SMEs. In addition to SMEs important roles, SMEs have established a successful track record globally in way of building systemic productive capacities, nurturing entrepreneurship and innovation, and as a backbone for national productivity income. Given those facts, further strategic development of CSR is highly connected to the integration of SMEs in the CSR studies. This paper describes and analyses how corporate social responsibility (CSR) has been perceived and practiced in the context of Malaysian small and medium-sized enterprises (SMEs). SMEs in Malaysia believe in investing in CSR to create value for themselves as well as for their stakeholders. Nevertheless, a major obstacle facing SMEs on establishing their policy towards CSR is that the role of the corporation in society varies across countries. In view of that, this paper is aimed to emphasize the importance of understanding the local context and the ways in which Malaysian SMEs engage in CSR debate. By focusing on how Malaysian SMEs perceive CSR, the paper then investigates the constraints and obstacles which stimulate the involvement of stakeholder and set in CSR values in SMEs. The findings are presented regarding the attributes of SMEs in the context of CSR generally, and developing countries more specifically

#### Gateway N

## THE IMPACTS OF DEVELOPMENT OF ROAD INFRASTRUCTURE IN POLAND FOR THE 2012 UEFA EUROPEAN FOOTBALL CHAMPIONSHIP - CHARACTERIZATION OF THE TRANSPORT NETWORK AS A FACTOR WHICH DELIMITS DEVELOPMENT OF AREAS

#### Katarzyna Iwaszko, Politechnika Wrocawska, POLAND

When, in 2007 Poland and Ukraine were chosen to host 2012 UEFA European Football Championship, the road development plans for Poland accelerated. Of highest priority were new roads between the organizing cities and those which linked them to international routes. The purpose of this report is to illustrate the changes in configuration of both regions where the development of infrastructure will bring realistic benefits and those without such opportunities. The research task is to establish the impacts of infrastructure investments on clusters of directions and development trends of contacts made through the Polish road network. It is a well-known fact that the transport system has an influence on the spatial development of a given region or country. It is also known that an increase in the rank of a given urban settlement in a communication network significantly improves its development opportunities. Therefore the relationships between a communication network and particular aspects of spatial management are the subject of numerous studies. However, the models used in such studies are often based on a limited number of aspects of a given phenomenon, which leads to a simplification of reality. Different types of standardizations help to measure the compatibility between particular descriptions of studied states or phenomena in the same space. However, as a result of using statistical models to standardize these descriptions, the spatial relationship usually become complicated or even completely lost. This is particularly important in network issues where infrastructure is anisotropic. The creation or termination of new connections leads to completely different spatial characteristics of entire networks, and thus influences the possibility to create contacts and develop particular areas. Apart from graphs which are merely illustrations and do not contain any more data than the tables upon which they are based, there are also illustrations which serve as research tools. Visual interpretation and theoretical integration enables us to read and interpret the whole structure, which is otherwise not evident. An example of such methods is the method adopted in this study, which allows for objective verification and evaluation of the progress and intensity of communication availability as well as the trends and perspectives of processes related to communication. This report presents the results of research investigating the system of transport networks in Poland, and focuses on the following:

- Characteristics of development of the communication network as an additional factor limiting the development of particular areas;
- Preferred clusters of directions during the development process;
- Indication and analysis of areas with interrupted and flawed network connections.

The studies implement an original cyclical-complex model based on T. Zipser's theory of contacts and theory of spherical projection. The method establishes a specific point as the center of two concentric spherical projections. The spherical projection assumes the existence of a particular standard surface for different methods of spatial development. In the case of network and linear systems it is the surface on which the distances between connections are measured along a straight line. Deviations of real distance from standard (air) distance may be presented as a change in the sphere's radius i.e. the movement of the sphere's surface outward or inward with respect to the center of the curve, the projection pole. Thus the radius of the real sphere becomes its parameter. The cyclical-complex model implemented in the study uses a mathematically defined range for the sphere's radius. This means that when the parameter exceeds a predefined value, the assumed existing connections are rendered ineffective. By using a common frame of reference the model enables the overlaying of different spatial development characteristics of different phenomena. So far these characteristics have been analyzed separately and the new model makes it possible to specify areas with a given combination of characteristics for particular issues. This allows for the limitation of areas of varying potential for development, which become evident only as a result of the applied analysis

#### Gateway M SOFT SPACES IN SPATIAL PLANNING: TOWARDS A CHRONOLOGY OF SOFT SPACES IN GERMANY

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Based on the Anglophone international literature (Allmendinger & Haughton 2009, 2010; Haughton et al. 2010; Waterhout 2010), we regard soft spaces as a particular type of space which is the result of a deliberate, conscious strategy constructed by governing actors (usually public sector led) to represent a geographical area in a particular way that lies outside of political-administrative boundaries. In the German planning literature, no equivalent concept has emerged, though there are numerous examples of concepts which appear to show many of the characteristics of planning with soft spaces. The paper presents a chronology of the historical development of German spatial planning since the 1970s in order to trace the emergence of selected concepts which may bear resemblance to soft spaces. We argue that particular practices associated with endogenous regional development (Mose 1989, Danielzyk et al. 2007), strategic planning (Kühn 2008) and informal planning instruments (Danielzyk 2005, Danielzyk & Knieling 2011) have provided a base for creating areas with fuzzy boundaries in Germany. As part of these area-driven approaches, regional actors have set up various forms of public-private partnerships addressing challenges and opportunities regardless of the administrative boundaries or clearly defined professional responsibilities. Examples of where soft spaces can be found in German spatial planning include Regional Development Concepts (REKs), cross-border and federal cooperation areas (e.g. the German-Dutch border region, Raumordnungsverband Rhein-Neckar), and metropolitan regions (e.g. Metropolregion Hamburg, Metropolregion Berlin-Brandenburg) to name only a few. Against the background of the specific German planning culture, the aim of the chronology is to identify similarities and differences to wider European planning practices. Finally, it is hoped that an examination of the historical development of German spatial planning will contribute to a further conceptualization of soft spaces and fuzzy boundaries in Europe. The paper presents some of the early results of the international research project "Soft Spaces, Spatial Planning and Territorial Management in Europe", led by HafenCity University Hamburg and funded by Forschungs- und Wissenschaftsstiftung Hamburg.

#### Gateway J

## THE DEVELOPMENT OF GREEN TECHNOLOGY INNOVATIONS IN NORWEGIAN AQUACULTURE: BALANCING CONTINUITY AND DISRUPTION

## Stig-Erik Jakobsen, Bergen University College, NORWAY Øystein Stavø Høvig, Bergen University College, NORWAY Arnt Fløysand, Bergen University College, NORWAY

The development of green technology innovations in Norwegian aquaculture: Balancing continuity and disruption. Thanks to modern salmon farming, Norway has become one global hub of industrial aquaculture. This commercial success can be described as the optimal co-production of market demand, scientific knowledge, social institutions, and available technology. In 2010 the Norwegian production of farmed salmon reached 1 million tons. Nearly all was exported and the export value was approximately 4 billion EUR. The Norwegian production counted for 57% of the world production of farmed salmonids (2009). However, there are several environmental challenges related to this production, with genetic interaction and escape, disease (sea lice), pollution and emission, and the supply of feed resources being the main issues (Taranger et al 2010). New governmental regulations, both national and international, and a market with an increase emphasise on green products and green solutions imply that firms have to adjust in order to survive. The main challenges for aquaculture firm in this redefined operational time-space are not only international competitiveness and profit in a traditional sense, but also the development of abilities to handle these growing environmental challenges. Thus, there is a need for innovations in the industry that can facilitate a greener and a more environmental friendly production process. This paper will investigate the challenges of introducing and managing such green technology innovations in Norwegian aquaculture. According to theory, innovations are rooted in balancing continuity and disruption of industrial practice (Schumpeter 1934, Fagerberg 2005). Consequently, innovations are not only challenged by technical problems, but also of socio-cultural problems in terms of well-established technological trajectories; path dependent technological solutions and cultural informed practices in hegemonic

networks (Martin and Sunley 2006, Martin 2010, Fløysand and Jakobsen 2011). Thus, the key questions for actors introducing green technology innovations are not only linked to technological issues, but also to relational and institutional issues of everyday practice. Schumpeter (1934) defined innovations as "new combinations of existing resources". A new combination or a new technology can be regarded as green when it has beneficial effects on the environment (Cooke 2009, Berger 2011). Our theoretical point of departure is a systematic oriented approach acknowledging the interactive nature of such innovations, i.e. innovation activities of firms relay on factors outside the single firms such as collaborators, R&D institutions, rivals, market conditions, formal and informal institutions. We also emphasize the evolutionary nature of innovations. Innovation is a cumulative phenomenon that builds on existing knowledge and practice, including past inventions and innovations (Fagerberg 2005, Martin 2010). In general, the practice of firms and the development of an industry are characterized by continuity and a development that follows well-established technological trajectories. The introduction of a new technology marks a brake or a disruption from this continuity. To handle the introduction of new solutions there is a need for management. The essence of managing the innovation process is to develop and utilize the creative potential of the organization, and to circumvent the routine based character of firm practice (Trott 2008). Consequently, new technologies have the potential of creating new paths or redefining existing ones if they become successful and brought into widespread use (Boschma and Frenken 2006, Mackinnon et al 2009). Our theoretical assumption will be discussed through case studies of the development of selected green technology initiatives in Norwegian aquaculture. All initiatives are related to the development of "closed-containment technologies" for sea water production of salmon, with the possibilities of reducing the problems of genetic interaction, escape and sea lice. Data on these cases have been collected through semistructured interviews with respondents from involved firms, and through analysing existing documentation.

#### Gateway K

## **REGIONAL DEVELOPMENT THROUGH COMBINATORIAL KNOWLEDGE DYNAMICS:** KNOWING, LEARNING AND INNOVATION AS PRACTICE

## Laura James, University of London, UK David Guile, University of London, UK

This paper contributes to recent debates in regional studies and economic geography about the role of knowledge and learning in regional economic development. In recent years these have focused on innovation and learning processes that cross organisational, spatial, and sectoral boundaries. This can be seen in new conceptual frameworks that address issues of extra-regional or multi-local knowledge dynamics (e.g. buzz and pipelines (Bathelt et al., 2004) and territorial knowledge dynamics (Crevoisier and Jeannerat, 2009)), and a range of contributions that might be loosely grouped under the heading of combinatorial knowledge dynamics, such as 'related variety' (Asheim et al. 2007), 'Organisational Decomposition of the Innovation Process' (ODIP) (Schmitz and Strambach, 2009) and 'open innovation' (Chesbrough, 2006). This paper argues that many of these contributions are characterised by the (often implicit) adoption of cognitivist assumptions about learning and an epistemology of possession (Cook and Brown, 1999). In this way, knowledge is constructed as an object that is de-contextualised, circulated and transferred across different interfaces in a variety of forms during the process of innovation. A different perspective is provided by social theories of learning (STL) which use an epistemology of practice to show how knowing and learning are situated, mediated, distributed and provisional. The relational 'turn' in economic geography has led some researchers to draw on STL and the concept of practice in their analyses of learning and innovation that involve geographically dispersed actors, particularly in transnational corporations (e.g. Amin and Cohendet, 2004; Faulconbridge, 2007; Jones, 2008; see Vallance, 2011 for an overview). Thus far, however, the fields of regional studies and economic geography have mainly drawn on the notion of 'communities of practice' (Lave and Wenger 1991), which is often mixed with cognitivist concepts (e.g. Nooteboom, 2008). This paper argues for a closer engagement with recent developments in the field of practice-based theories of learning (e.g. activity systems and knot-working (Engerström 2008); and 'reconfiguration' and 'recontextualisation' (Guile, 2010), which highlight the commingling of practices, objects, and activity to achieve knowing. It suggests that these contributions offer helpful insights and represent a potentially useful way of conceptualising the learning and innovation that is achieved through combinatorial knowledge dynamics. The paper concludes by considering some of the implications of such a reconceptualisation for regional economic development.

#### Gateway E

# STABILITY OF LOCAL ELITES IN PERIPHERAL AND RURAL AREAS IN CZECHIA IN THE POST-TOTALITARIAN PERIOD

## Vit Jancak, Charles University In Prague, CZECH REPUBLIC Pavel Chromy, Charles University In Prague, CZECH REPUBLIC Miroslav Marada, Charles University In Prague, CZECH REPUBLIC Tomas Havlicek, Charles University In Prague, CZECH REPUBLIC

The contribution deals with differentiation of rural and peripheral areas in Czechia from inner potential of development point of view. Inner potential can be understood in quite a broad sense. In the contribution it is focused on key agents of local development, thus on representatives of local elites, specifically on municipalities representatives. Attention is laid on the research of differentiation of developmental opportunities of rural and peripheral areas in Czechia, on differentiation of inner potential of development. Activity of agents and subjects of development and their interest groups should be regionally different. The aim of the research was to verify individual types of peripheries and rural areas in Czechia on the basis of evaluation of stability of local elites. Institutional frames of regional development serve from theoretic-methodological point of view as a base of the contribution. Structure of local authorities of municipalities in model areas representing various types of rural and peripheral areas in municipal elections in the post-totalitarian period (1994-2010) was analysed. The following research questions were asked: Is it possible to record territorial differentiation in the rate of stability of elites i.e. in the rate of changeability of local representatives? Can differences in territorial differentiation of stability of local elites according to individual types of rural and peripheral areas in Czechia be proved? Can be the Bohemia – Moravia dichotomy "inside" Czechia or possibly continually developing dichotomy inner land versus borderland resettled after the transfer of the Czech Germans after the Second World War proved? We are thus looking for the relation among troublousness, level of development or successfulness of development of model micro-regions and stability of local elites. It is presumed, that stability of local elites is related to development of the territory i.e. with ability to develop. That is to say that frequent variation of local elites in our opinion doesn't enable to formulate and implement long-term strategies of development. Thus microregions with frequent variation of local elites should rather demonstrate stagnation. Evaluation was carried out in different types of peripheral and rural micro-regions in Czechia. Model micro-regions were selected in such a way so that they can represent main types of peripheries and rural areas. Individual local authorities elected in municipal elections in the post-totalitarian period (i.e. in the years 1994, 1998, 2002, 2006 a 2010) were analysed in each model micro-region. The first free post-revolutionary election in 1990 was not analysed purposely. This election was in fact held in still revolutionary period. Key changes in settlement structure, restoration of democracy, restoration of self-government, disintegration of central administration system and formation (by division of bigger ones) of new municipalities came into being at the beginning of the 1990s. Evaluation proved that stability of local elites in Czechia is regionally differentiated. It varies in the inner periphery (stabile settlement) - outer periphery (the borderland resettled after the Second World War) dichotomy. The proposition of non-existence of "one rural type" or the existence of "more rural types" in Czechia was proved. It is evident that the instruments of regional development are to be diversified regarding individual types of territory.

## Gateway M1 IMPLEMENTATION OF SPATIAL PLANS IN PERIPHERAL SHANGHAI

## He Jinghuna, Delft University of Technology, NETHERLANDS

Shanghai, as the dragonhead of Chinese economy, is experiencing dramatic urbanization and hence urban expansion. It has also spent efforts for long time to promote peripheral development through policies and practices when confronting such rapid suburbanization, and current intense conflicts between city center and suburbs. However, failure to implement plans has been considered a significant barrier to effective planning; and few studies on the impacts of plans and policies have been done (Berke et al., 2006; Tian & Shen, 2011). This paper intends to establish a framework as well as essential measurements to evaluate planning implementation with regards to peripheral development in Shanghai. It utilizes the conformance-based approach, which is explicitly explained in section 2, to evaluate degree of conformity between various spatial plans that concerned peripheral development and their physical spatial outcomes quantitatively (Laurian et al., 2004; Talen, 1996). Albeit spatial planning has changed from physical focused blueprints to strategic plans which concerns not only the physical developments but also social, economic and ecological developments

(Faludi, 2000), this paper concerns more on the physical spatial outcomes rather than socio-economic influences. That is because the objectives such as the social, economic, and ecological development are difficult to measure quantitatively; and influences of plans on these are complex. Findings of this paper show effectiveness of spatial plans quantitatively and supply a basis for further comprehensive evaluation. Section 2 introduces methodological considerations for following evaluation. It firstly distinguishes multiple levels of evaluation moving from the most up-to-date master plans (1999-2020) and five-year plans to more specific detailed plans at local level. In each level, it classifies and interprets levels of implementation success according to the degree of conformity. Section 3 employs overlay analysis as mentioned above through mapping (GIS or other tools) to compare the Master Plan and actual spatial outcomes in terms of previously defined parameters. Section 4 compares detailed plans of several neighbourhoods with local spatial configuration at neighbourhood level. Finally, section 5 compares the degree of conformity between local and metropolitan levels, and relates it to the development period in order to discover the deep-seated relations. Further, it identifies essential parameters that indicate planning implementation success at both metropolitan level and neighbourhood level respectively.

## Gateway A1 CREATING LEGITIMACY IN REGIONAL DEVELOPMENT NETWORKS: THE CASE OF AGDER

## Hans Chr Garmann Johnsen, University of Agder, NORWAY Roger Normann, University of Agder, NORWAY

Legitimacy can be seen as a key factor to determine the success of development networks. The reason for this is that development networks are loosely coupled systems, often consisting of strong but competing partners, and often contested by other institutions. Only by holding a considerable degree of legitimacy will the network be able to exercise power. Our paper discusses how legitimacy is developed in and by a network. The case we will refer to is the region of Agder, Norway, where a large, long term regional development project is starting. [Do we need to know a wider policy context, including details of funding?] It is set up as a development coalition or network to take forward a broad regional plan with main goals set for 2020. The plan sets ambitious targets within areas such as environment, life-quality, competence improvement and business development. The project is steered by a set of collaborative forums that includes all municipalities at Agder (30 municipalities) through sub-regional councils (five regional sub-councils). One major challenge they have, is to develop legitimacy for the project. This implies that issues like how engagement in networks influences perception and "construction of reality". Also we have noticed in our Agder case, that there are critical voices on engagement in these new network steering forms. There seems to be more traditional institutional and administrative opinions that question the usefulness of these new network steering forms. Some of these voices come from politicians who see these forms as engaging into fields where politics is developed. Subsequently, this network governance structure, that has no formal authority, can illustrate conflicts in relation to formal organization, conflicts in relation to the political system, and the charge of being too expensive and inefficient. It thus illustrates the reason and dilemmas for steering networks; that is the advantages of co-ordination, are balanced by other claims. Thus we firstly will argue that legitimacy that can be related to different enabling factors like power, economic resources, competencies, social capital or symbolic capital. Secondly, our thesis is the how legitimacy is developed influences both the processes and results that the steering network produces. Thirdly we argue that this relation has between what gives legitimacy and what process and output effect it implies, has implications for how we should design and organize regional development networks.

#### Gateway G1

## A PLANNING ROAD MAP FOR INTELLIGENT CITIES: CASE STUDY ON REVITALIZING A COMMERCIAL DISTRICT.

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In the plethora of references related to the development of 'smart' / intelligent cities, the use of these terms has been identified with efforts to address real city challenges and problems with the involvement of users, citizens, and local communities. Yet, so far the majority of smart city cases refer to fragmented development of

applications and e-services and 'top-down' approaches that better correspond to efforts of image building and a proof of status in the global competition of cities, than to a 'bottom-up' integrated strategy involving citizens and members of communities and actualizing collaborative efforts and collective intelligence. Furthermore, what is missing in the recent literature on intelligent cities is a well defined methodology for planning cities and city districts along this new paradigm. There is a need for a planning approach that integrates the physical, institutional and digital dimensions of cities, activates communities and stakeholders, assures their involvement from the very early stages, develops locally customized solutions that address efficiently both existing and emerging urban problems, and offers higher spatial intelligence through a process of open innovation and webbased collaboration. Starting from experiences accumulated by a series of applied projects, we are proposing a roadmap for planning intelligent cities composed of three stages and seven separate steps. The stages concern the definition and exploration of the components of intelligent cities and districts (urban system / innovation ecosystem / digital space); the formulation of the problem-solving strategy based on integration of these components; and the implementation of the strategy through the participatory development of web applications and e-services, the selection of sustainable business models, and the definition of monitoring scoreboards for assessment and impact measurement. The aim of this planning roadmap is to ensure (1) the targeting of smart city environments, applications and e-services on the real problems and challenges of cities, (2) the actualization of community's collective intelligence through bottom-up participative processes engaging stakeholders, end-users, citizens, developers, and organisations in the selection, design and development of solutions and e-services, and (3) the interconnection of smart environments and e-services with the physical space, social structure, infrastructures and functioning of cities. The paper also discusses the implementation of this planning roadmap for the creation of a smart commercial district in the city of Thermi in the Greater Area of Thessaloniki, Greece. This case study outlines a problem-solving process engaging citizens, stakeholders and end-users injecting collective intelligence into the city's commercial ecosystem. The smart commercial district is supported by open source applications based on open standards and open data. The involvement of local user communities is achieved through a process of open innovation cycles in which users, lead-users, and developers evaluate, validate and improve applications, solutions, and e-services strengthening the competitiveness of the local commercial ecosystem.

#### Gateway H1

# THE KNOWLEDGE ECONOMY IN A CAR DEPENDENT PERTH, WESTERN AUSTRALIA: THE STORY OF KNOWLEDGE INTENSIFICATION AND URBAN SPRAWL

#### Michael Kane, Curtin University, Perth Western Australia, AUSTRALIA

The knowledge economy in a car dependent Perth, Western Australia: The story of knowledge intensification and urban sprawl Worldwide the knowledge economy and information communication technology are underpinning economic activity in post industrial economies. ICT and the knowledge economy are characterised by urban proximity and agglomeration, with strong links between ICT, spatial distribution of knowledge workers, urban density and productivity. The knowledge economy requires an increase in the knowledge intensity of capital, labour, products and services. Cities in post industrial economies, it is argued, are characterised and driven by this intensification of knowledge. This presentation argues that there are three factors of knowledge intensification in the modern economy:

- intensification or agglomeration of knowledge economic
- intensification of knowledge within human capital knowledge ie within individual workers and where those workers work and reside
- intensification of knowledge and data within ICT systems and infrastructure

All three intensification factors have a strong spatial context and all are interrelated. However the spatial and agglomeration characteristics of the knowledge economy and its impacts on urban and public transport planning are not well understood, particularly in Australia. In post industrial nations the economic future requires a rethinking on the planning and development of cities. In Australia it was not until 2011when the Federal Government released its "Our Cities and Our Future Report - the National Urban Policy" that a high level long term national policy framework for Australian cities was established. However all of Australia's major metropolitan spatial plans are devised at a state government level, which while alluding to creating 'compact cities' continue to provide low density, car dependent, job remote, 'affordable housing' in outer suburban areas. Little of the various state government innovation or knowledge economy strategies are reflected or prioritised in the metropolitan spatial plans. Outside of the inner cities CBDs the metropolitan spatial plans are focused on

creating or building hierarchies of activity centres around shopping centres, creating an outer suburban economy based on unsustainable consumption rather than on knowledge production. There is a need to rethink Australia cities. For example public transport has traditionally been planned in response to urban growth, economic activity or for environmental or social equity reasons. However it is argued that public transport needs to also be seen as a catalyst for economic transformation of cities through facilitation of knowledge intensification. The role of private vehicle, so dominant in Australia and North America, has limitations as a mover of human knowledge in urban settings. The intensification of ICT transferred knowledge through the shift from copper to optic fibre is analogous for potential intensification of human carried knowledge through replacing vehicle peak travel with high intensity public transport.

The presentation then considers whether the knowledge intensification and its urban characteristics seen worldwide are applicable to Perth, Western Australia. Perth is one of the most car dependent sprawling cities on the planet with low urban density. By the 2000's the Perth CBD's share of jobs almost halved over the previous thirty years, while the outer suburbs share more than doubled. It was seen by the planning authorities that jobs or industries were no longer tied to specific locations, reflecting decentralising population patterns. The present spatial plan for Perth foresees the continued expansion of the city with an assumed economic growth projection based on past mining and energy resources growth. By 2031, the population of the city will have increased by at least half a million people to 2.2 million residents. The rate of growth may be even faster, with the population potentially reaching 2.88 million by 2031. In order to accommodate 2.2 million people it is estimated that another 328,000 houses and 353,000 jobs will be needed.

The spatial location of knowledge workers and knowledge employment in Perth metropolitan area are considered. Further the spatial location of a group of internet dependent businesses, as participants in the Western Australian Internet Exchange, and internet/ICT infrastructure are examined and mapped. It is found that the knowledge economy and ICT infrastructure in Perth do demonstrates strong knowledge intensification in its urban spatial characteristics through increased concentration of knowledge economic activity, knowledge workers and ICT infrastructure. The presentation concludes that urban and transport planning needs to be driven by knowledge intensification, particularly in consumption oriented sprawling cities such as Perth, if Australian cities are to create greater levels of economic and social sustainability.

## Gateway E1 TOWARDS AN UNDERSTANDING OF COOPERATION DIFFICULTIES AND CAUSES OF FAILURE IN EARLY-STAGE RURAL COOPERATIVES

## Edward Kasabov, University of Bath, UK Alexander Warlow, IDM, UK

The retreat of the welfare state, the shift to laissez-faire economic thinking, deregulation and privatisation since the 1980s rest on the assumption that state withdrawal from economic activity produces efficiency gains (Evers & Laville, 2004; Roper & Cheney, 2005). This 'decentering' of the state, the expansion and subsequent disillusionment with the market, particularly following the recession caused by the banking crisis, explain the current interest in cooperatives as a compromise between state and private management. Success of cooperatives is attributed to their ability to solve market failure and encourage community collaboration, local initiative taking and the development of social capital (Dollery & Wallis, 2003; Haque, 2008). In the UK alone, there are over 55,000 social enterprises contributing £27bn annually to the economy (Hart & Haughton, 2007). There is considerable and growing literature on cooperatives. However, concerns have been expressed more recently about certain commonplace literature assumptions, most notably expectations of positive outcomes of cooperation (Phillips, 2005). Literature on cooperatives also tends to study large and established cooperatives. Early-stage small cooperatives which may struggle to become established remain under-researched. In order to address these gaps, observation- and interview-based research in 2006, 2009, 2010 and 2011 studied forty-eight existing or recently failed rural Welsh cooperatives. Problematic areas of early-stage rural co-operatives were identified during the empirical research, including weak loyalty, low trust and certain types of social capital, prevalence of opportunistic and 'devious' behaviours, inadequate legitimacy, destabilising industry conditions, paucity of professional management and marketing expertise. These appear to be key determinants of the longterm viability or otherwise of such cooperatives. This discussion makes a conceptual contribution to topics which remain inadequately empirically investigated and are rarely covered in extant research - difficulties and failure of cooperatives, especially rural cooperatives (Shaw, 2004; Carr et al., 2008), and problems in accumulating social capital in rural settings (Heenan, 2010; Zissi et al., 2010). Complications and failure of Welsh agri-food rural cooperatives, as well as rural fissures and divisions demonstrate that cooperatives may not always deliver the benefits anticipated by academics, practitioners and policy makers. Based on empirical findings about the limits of cooperation, it is suggested that adopting and favouring simple templates of rural cooperation and peripheral development may be impractical and even dangerous.

#### Gateway K

## SUSTAINABLE RENOVATION IN PARIS REGION: WHAT INNOVATION? WHAT ROLE FOR TERRITORIES?

## Leila Kebir, Ecole Des Ingenieurs De La Ville De Paris, FRANCE Youssef Diab, Ecole Des Ingenieurs De La Ville De Paris, FRANCE

Territorial production systems are challenged today by the developments in the context of globalisation as well as the growing issue of sustainable development. The increase of resources mobility (qualified labour in particular), of symbolic value of products, of production systems integration in large international production chains raise questions about the current role of local actors in territorial development. Indeed the models of the eighties describing archetypical industrial forms of economic organisation and competition based on cumulative processes and export oriented activities (clusters, industrial districts, innovative milieus) is challenged by new forms of combinatorial knowledge dynamics in particular when mobilising symbolic knowledge (see for instance the results of the EURODITE FP6 project). This paper addresses the question of the way innovation organises today across space in the context of innovations related to sustainable issues in a production system which is by nature rather localised: the building sector.

The paper is based on an analysis of the evolution of the building production system in Ile de France (Paris region). The analysis focuses on the examination of activities associated with sustainable tertiary renovation. Carbon reduction requirements raise the issue of the sustainable renovation of existing buildings, which are often energy inefficient. Sustainable renovation gives rise to a number of technical innovations (often imported) and also raises questions about the organisation of actors, for whom on-site coordination appears even more necessary. Also, the symbolic aspect of renovation processes is interestingly quite present if one thinks of the necessity for actors to attest for the efforts made (certification issues, communication, etc.) and the flagship role of certain renovation projects. Note in particular, in the case of the renovation of tertiary buildings, the complexity of the projects (need to articulate technical knowledge in different realms, transversality, coordination between the different building trades, etc.) has brought the emergence of new key actors, such as contracting assistants as well as the emergence of local business cluster projects.

After analysing the technical and organisational aspects of renovation processes, the paper questions the role of this policy pushed evolution on the economic dynamic of the territory. One of the endeavours of policy makers was to foster the development of sustainable (green) industries and innovation. The analysis of the proximity/distance relations mobilised in renovation projects will enable the identification of the nature of the innovation (service oriented only?) and the eventual driving effects on related industries.

#### Gateway G BEGINNING OR END OF URBANISATION? THE CASE OF A HUNGARIAN SMALL TOWN, SZOB

#### Eva Kiss, Hungarian Academy of Sciences & West Hungarian University, HUNGARY

During the socialist period urbanisation was a well regulated, top-down led process in Hungary, and thus very few rural settlements (village) could apply or get the urban status. However, after 1989 the regulation has become more liberal and many rural settlements have applied for the urban status. Almost all of them have got this title and they were declared a town. As a consequence urbanisation has been accelerated and urban network has become more balanced in Hungary during the last two decades. The number of towns has also considerably increased, from 96 to 328. However, at least one-third of them are such urban settlements which, in fact, cannot be considered a real town, because of different reasons (e.g. their unfavourable infrastructural supply and settlement's landscape). In this presentation it is analysed how the urban status has affected the socio-economic development of those settlements which have been designated a town after 1989, especially those of them which are village-towns. In other words what the urban status has meant in their life. This will be demonstrated on the

case of Szob, which is a small town located in the Danube band at the Slovakian border. Based on an empirical research carried out among the population of Szob in 2010 it has been revealed, how the settlement has been developed, what are the major trends in its social and economic life, what the urban status means for the local people. How has the urban status affected the local economy? In wider sense it will be also discussed until when the urbanisation last in Hungary? And what is the future fate of these small towns? How can they and their economy adjust to the new and global challenges?

## Gateway O LOCAL ECONOMIC DEVELOPMENT PRACTICES; A SUCCESSFUL MODEL

## Katalin Kollár, Széchenyi István University, HUNGARY János Rechnitzer, Széchenyi István University, HUNGARY

The process of the local economic development is extremely complex. The different authors aggregate concept, objectives and actors of it diversely. According to the literature the local economic development is an intervention to the function of the economy. Its purpose is to secure the sustainable local development and raise standard of living. The role of the automotive industry is very determinative in the global economy. In Hungary have been produced commercial vehicles from the 1950s and production of automobiles began from the 1990s in larger series. In these years made an appearance the big multinational automotive companies, for example Audi Hungaria Motor Ltd. Role of these enterprises are very important not only in the Hungarian economy but in global economy. Research proved, that more than 3 million engines are produced and 5-600.000 vehicles are assembled in the 300 km catchment area of the Győr-Esztergom-Szentgotthárd triangle. Thus, a Central-European vehicle construction macro-region was created in the first decade. We present on the grounds of a Hungarian successful example the factors, by which the city was able to live in a dynamic sector development. It was based on by centuries-old tradition, which aimed at development of industry and various services; established institutional framework, but mentality and management culture, too. The creation of new industrial bases were conscious, the city's economic structure has radically changed. A large car manufacturer (Audi Hungária Motor Ltd.) had settled, and the company's decision was influenced by automotive traditions, favourable traffic situation of Győr, labour supply, higher education base and training system. Other industrial and service enterprises have appeared, by their settlement was a big help the fortunate infrastructure. The city government is already thought in growing pole in the tenth, which was strengthened by the industrial potential, production infrastructure and dynamically developing university knowledge base. The urban services and urban milieu are also radically renewed, too. The successful model of Győr proves, that the long-term economic development strategy operates effectively, if the settlement and its economy cooperate continually and it is given those institutions (higher education, training and advocacy) and organizations, which can help and induce communication. The aim of the study is to present the short theoretical background of local economic development, than we would like to review development arch of Győr. Than we will examine emergence of theoretical frame of local economic development in this development arch. We will have prominent respect for automotive industry, actors of local economic development and practice of strategic planning in Győr. The study pays special attention to the traditions of vehicle industry in the West-Transdanubean region.

## Gateway J INNOVATIVE ENTERPRISES AS AN ENGINE IN MODERN INDUSTRIES: CHALLENGES FOR UKRAINE

#### Tetiana Kornieieva, National Academy of Science of Ukraine, UKRAINE

Technological advancements, especially in ICT have enhanced greatly the competition stimulated by the globalization of the world economies. Even enterprises are no more immune to the challenges that the globalization brings about. It is a remarkable situation since firms play a key-role in most economies, in that they constitute the largest business block and provide the bulk of employment. However, opportunities presented by the globalization and the entwined, simultaneous pressure to innovate opens for enterprises new arenas to engage in global innovation activities so as to gain, retain, and further strengthen the competitive position. This pressure to go for global innovation is enhanced by given socio-demographic factors in many industrialized countries. Companies consider innovations as a major tool to enhance their performance and to strengthen their competitive position in the market. Many firms paid most of their management attention to a

greater focus on internal efficiencies of the development process, team structures, decision making and cross functional interaction. However, as more and more companies bring innovation straight to the heart of their corporate strategies, developing internal innovation capabilities is no longer sufficient to gain and sustain competitive advantage. Since innovation strategies look increasingly similar and commoditized, more and more organizations try to further improve their innovation performance through intensifying collaboration across industry networks and partnerships, opening up their innovation processes in line with the innovation framework. Ukraine has declared that fostering of innovation activity in industry and services is one of the most important directions of its competitive strategy. The influence of SMEs' size on innovative activity differs in different industries in Ukraine and in other transition countries as it is crucial to account for disproportional technological development between sectors. In the low technology sectors the influence of enterprises' size on innovative activity may differ from high technology sectors. According to the survey conducted by State Committee of Statistics in 2010 among 7639 firms in processing manufacturing the largest number of enterprises which use at least three advanced manufacturing technologies operate in sector of office supplies, accounting and computing machinery production (25% of enterprises in industry), radio, TV and communications equipment (12,9%), production of other transport equipment (12,0%), medical and optical tools (11,5%), tobacco, coke production, and nuclear fuel (11,1%). The largest share of enterprises using young technology (less than 5 age old) is in office equipment production (46,2% of enterprises in industry) while the oldest technologies are used in coke production, refined petroleum products, metal products, and other nonmetallic mineral products. Large firms get advantages performing a larger number of innovative projects than smaller firms. These advantages for large firms come in the form of risk diversification, increasing probability to discover other innovations and knowledge transfer between the projects they are involved in. The industry analysis shows different results for new and old industries, product and process innovations. Small firms in new industry are more effective in introducing innovative product due to diversified strategy. A specific study in the software industry reveals that small and young firms are more efficient in new product introduction, while large and older firms are likely to be more efficient in quality improving of products and developing the variety of existing product. Small firms are more restricted in the financial resources for investment including innovative investments. It is relatively easier and less costly for large firms to obtain financing. Large firms may also be constrained in their financial resources but to the less extent than smaller ones. Shortage of financial resources for investing in innovation depends on the industry in which firm is operating. The key issue in the industry analysis of innovative enterprises as well is the issue of innovation persistence meaning the ability of firms to carry on the innovation activity (persistence in innovation inputs) to obtain innovation output in the next period. Persistence of innovation is driven by three main factors: success breeds success, increasing returns to innovations and sunk cost of R&D. The most power in explaining different innovative outcomes for enterprises should be given to technological advances and possibility of growth in the industry, the degree of concentration, capital and labour intensity, the opportunity to implement a diversification strategy and demand characteristics for industry products.

#### Gateway I

# NETWORK DEVELOPMENT OPPORTUNITIES ALONG THE CENTRAL AND LOWER DANUBE VALLEY

#### Attila Korompai, Corvinus University of Budapest, HUNGARY

Network Development Opportunities along the Central and Lower Danube-Valley In the frame of the Danube Strategy of the EU the Central and Lower Danube Valley from Slovakia till the Delta territory includes a very wide range of complex, problematic issues. The development strategies for this territory may utilize a lot of local opportunities covering different type of economic and social activities but there are a series of interdependencies owing to the common and connecting Danube river. The Donauregionen INTERREG projects unfold the basic conditions and elements for a comprehensive interdependent strategy for this region. The work is based on national partners from each concerned countries and the relevant county data and strategy information. The network development is one of the key component in this. The examples of subregional and multiregional crossborder network development opportunities and the possible roles, particularly from the aspect of Hungarian counties are presented in the paper.

#### Gateway C LOCATIONAL CHOICES AND THE COSTS OF DISTANCE: EMPIRICAL EVIDENCE FOR DUTCH GRADUATES

## Kristin Kronenberg, Open University of the Netherlands & Maastricht University, NETHERLANDS Martin Carree, Maastricht University, NETHERLANDS

The locational choices of graduates can be expected to have a substantial impact on the economic performance of regions experiencing the in- and/or outflow of highly educated individuals (e.g. Venhorst et al., 2010). Yet, while a vast body of literature exists on the migratory decisions of individuals in general, comparatively little is known about the locational preferences of recent university/college graduates, both regarding their choices of workplace and place of residence, and how these decisions depend on their location of study. Recent university and college graduates, being young and highly educated, can be expected to display comparatively high levels of spatial mobility (Clark and Cosgrove, 1991; Kodrzycki, 2001; Ritsilä and Ovaskainen, 2001) as well as a high commuting tolerance (Schwanen et al., 2002). Yet, while the locational choices of these graduates may profit those areas which experience the inflow of qualified and affluent individuals, they might harm those regions which are confronted with the loss of a talented workforce, or have to bear the consequences of excessive commuting and the congestion associated with it. This study contributes to the existing literature on individuals' spatial behaviour by analyzing the determinants of graduates' college-to-work, college-to-residence and commuting distances. It takes into account the influence of graduates' personal, household and employment characteristics, the attributes of the regions of origin and destination, and the distances between the regions of origin and destination and other locations of interest, thereby illustrating the trade-offs individuals have to make between locational benefits and the costs associated with the distances between relevant localities. The study makes a valuable addition to the literature on individuals' locational choices which often distinguishes between areas considerably larger than the average Dutch municipality, and commonly assumes one's locations of work and residence to be identical.

The dataset used in the empirical analysis was provided by Statistics Netherlands. It is based on register data covering virtually all Dutch university/college graduates in 2003, and consists of information regarding graduates' personal, household and employment characteristics, their study, home and work locations, and the attributes of these localities.

The results of this study illustrate the challenges graduates face when selecting the locations of their first poststudy workplaces and places of residence. Graduates in the Netherlands do not insist on living and working in the same locality, but apparently select their location of residence with the intention that both their place of work and place of study can be easily reached. We find that recent graduates appear to attach considerable importance to career prospects and choose their location of work correspondingly, thereby accepting residential relocation and/or long daily commutes. Yet, results suggest that they strive to balance their commuting distances and the distances to their previous place of study by locating their place of residence accordingly. Furthermore, graduates may decide to live and work in different regions for reasons which may be (also) related to the availability of adequate and affordable housing, whereas residential amenities have a comparatively small impact on their locational choices. In addition, they apparently value residential locations which are easily accessible, supposedly as they expect to frequently change jobs in the near future, yet may want to avoid additional residential moves. The results of this study contribute to explaining the increasing congestion which can be observed for the Netherlands, as individuals apparently do not feel compelled to collocate their workplace and place of residence, but trade-off the desired qualities of their workplace and place of residence with longer commutes and travel distances between relevant locations. These findings may be distinctive for a country with a comparatively small surface area, thus allowing for commutes between the majority of possible home and work locations, and for frequent (return) visits to any place of interest

#### Gateway C

#### LABOUR MARKETS AND AGGLOMERATION: THE URBAN RAT RACE IN SOUTH AFRICA

## Waldo Krugell, North-West University, SOUTH AFRICA Marike Krugell, North-West University, SOUTH AFRICA

The South African labour market is characterised by sharp segmentation, high unemployment and apparently limited informal sector employment. Recent work has focussed on the importance of the quality of education

while others have argued that the rigidity of the labour market constrains employment growth. This paper extends this examination of segmentation by looking at the relationship between agglomeration and hours worked. We follow the work of Rosenthal and Strange (2002), who find evidence that industrious professionals are drawn to the cities and that agglomeration increases the number of hours worked, thus supporting Akerlof's (1976) theory of an urban rat race. Using cross-sectional data from the September 2007 Quarterly Labour Force Survey, we model the log of hours worked as a function of different worker attributes, dummy variables and agglomeration variables. Findings from the empirical analysis yield atypical results confirming the unique structure of the South African labour market. Overall, results indicate that a work-spreading effect occurs amongst professional workers, whilst non-professional workers appear to work the longest hours.

#### Gateway A1

## EVALUATING A RURAL DEVELOPMENT PROGRAMME AT PROVINCIAL LEVEL

#### Tom Kuhlman, LEI Wageningen UR, NORTH KOREA

The EU Rural Development Programme (2nd pillar of the Common Agricultural Policy) consists of 42 measures, grouped under four 'axes' representing development issues. Each member state (and, in some countries, each regional authority) fills in these measures in its own way, albeit following general rules. In order to monitor the progress of the programme as a whole, a Common Monitoring and Evaluation Framework has been set up, which distinguishes different types of indicators. The authorities responsible for each individual programme have to supply the data for these indicators on an annual basis, and specified per NUTS2 region (NUTS is a European nomenclature system for administrative and statistical divisions within countries, meant to make the systems in different countries comparable). In theory, such a database should make it possible to quantitatively evaluate both individual RDPs and the programme as a whole, at European level. The research project Spatial Analysis of Rural Development (SPARD) has been set up to explore to what extent that possibility can be realized. Additional data are, of course, necessary to test whether a change in a particular indicator can be ascribed to the programme or to other driving factors. In particular, the spatial factor may be important here, both in terms of spatial heterogeneity and spatial dependence. To check for the latter, spatial lag and spatial error models are used. In this paper, progress on one of the case studies in the SPARD project is reported: the province of Noord-Holland. The purpose of a case study is to validate results of EU-wide models (with NUTS2 as their resolution), but more in particular to examine whether the same methods used at NUTS2 level can yield more insight at a higher resolution. In this case-study, we present such an analysis at two levels: one by municipalities (LAU2 in the Netherlands), and one by individual farms - the most detailed level possible. The specific scheme for which this analysis was done is measure 214 - agri-environment schemes, which for the first analysis was examined as a whole and for the second divided into sub-schemes. Since data on impact indicators (in the case of our measure, environmental quality) are not available at such detailed spatial levels, participation in the schemes has been taken as the dependent variable, with various characteristics of both municipalities (in the first analysis) and farms (in the second one) as explanatory variables. Location is one of these characteristics

#### Gateway M1 PERIPHERALISATION OF CITIES AND REGIONS: THEORETICAL APPROACHES

### Manfred Kühn, Leibniz-Institute for Regional Development and Structural Planning, GERMANY

The term "peripheralisation" is basing on a dynamic understanding of processes, which produce peripheries – instead of defining peripheries by static distances to centres. In a first part, three main processes of peripheralisation will be distinguished: 1. out-migration of inhabitants and workers, 2. disconnection to innovation dynamics of the knowledge-based economy, 3. dependence on centres of command and control. These processes can be seen complementary to the centralisation of immigrants, gateways and headquarters in metropolitan areas and capital cities. In the main part, the author introduces various theoretical approaches, which describe or explain the "making" of peripherality of cities and regions. For this purpose, the following approaches will be referred: 1. Internal peripheries and role changes of peripheries in history (historical sciences), 2. Polarisation theories (regional economy and geography), 3. Power and dependence theories (sociology and political sciences), 4. Governance and network approaches (planning sciences). In the last part, the author outlines some theoretical reflections, including the following topics: spatial systems between centres

and periphereis, causes and consequences of peripheralisation, actors of peripheralisation and options to cope with peripheralisation in cities and regions. The paper ends with some open questions, which may be helpful for further research approaches to conceptualize peripheralisation.

## *Gateway M* **OVERCOMING SILOS TO SUSTAIN CITIES: A COMPARATIVE APPROACH TO THE CITIES OF TORONTO AND TOKYO**

### Yoichi Kumagai, Shokei Gakuin University, JAPAN Mary Louise McAllister, University of Waterloo, CANADA

On the face of it, Tokyo, Japan and Toronto, Canada appear to share little in common with respect to urban form, culture, economics, or size. In fact, they are vastly different cities with unique histories, geopolitical imperatives, political ideologies, and governing institutions. Yet despite such notable dissimilarities, they are markedly similar in one respect: both these economic centres have been subjected to urban sprawl, which has continued to march inexorably across green fields and arable farmland. This paper explores the factors that led to unbridled and unhealthy urban growth in Tokyo and Toronto and investigates the requisite changes that would foster socio-ecological sustainability as an alternative approach to municipal governance. Over the past 100 years, rapid urban expansion was accompanied by the rise of an influential professional class that promoted a business management approach to public affairs. In both Tokyo and Toronto, planning initiatives were organized around managing, rather than constraining, suburban growth. Operating in silos, it was clear that government pricing policies did not come close to reflecting the costs of providing municipal services in the outlying areas, let alone factor in the long-term damage to ecological goods and services upon which all economic systems rely. Today, this trend continues. Attempts to intensify the urban core and protect valued farmland and natural areas have been the subjects of numerous studies. However, long-term sustainability and effective policies to curtail urban sprawl will require a complex socio-ecological systems approach in place of the reductionist, linear growth-first approach that has prevailed to date. Moreover, collaborative, participatory approaches will need to replace top-down approaches to decision-making that favour the interests of propertied elites and technological solutions in order to foster sustainable cities. The paper is organized into three parts. The first section explores the forces that led to unsustainable urban growth in both cities. These factors include post-war economic reconstruction, embedded ideological beliefs that reinforced unsustainable urban decisionmaking processes, and the influence of well-entrenched, propertied interests that benefited from a governing system which rewarded, and did little to constrain, suburban property development. Today, both cities are facing a number of serious social and ecological challenges where, to differing degrees, the general public is questioning the status quo and conventional approaches used to govern cities. Employing a socio-ecological sustainability framework, the second section of the paper suggests that a radical departure in municipal governance is required; one that is distinctly different from the top down decision-making processes that prevailed throughout the 20th century. The approach taken here builds on some nascent initiatives that are beginning to gain traction in some cities which include participatory municipal governing processes, and initiatives to incorporate greener strategies into municipal decision-making. Lessons are drawn from both Toronto and Tokyo. Toronto has a more established history of participatory governing processes while Tokyo, with its strong tradition of drawing on science and engineering, is more advanced in technology. Both cities, however, have a long way to go before their efforts might be seen to be effective in tackling the complex socioecological challenges. Mounting public concerns about growing social inequalities, degradation of valued ecosystems, and the 2011 nuclear disaster in Japan has seen the growth of skepticism about the ability of either technological applications or municipal governments to solve contemporary and complex socio-ecological problems. Resilient, sustainable cities require integrated and participatory decision making processes based on approaches to municipal planning and financial strategies. The paper concludes with the presentation of a new conceptual paradigm for municipal governance that will be required if ideological and institutional barriers are to be overcome allowing these cities and their decision-makers to move forward along a more sustainable path to the future.

#### Gateway E

# VILLAGE SHOPS: RELEVANCE FOR LOCAL SUPPLY, SOCIAL FUNCTIONS AND ECONOMIC VIABILITY

#### Patrick Küpper, Von Thünen Institute (VTI), GERMANY

Inclusive places are characterized by accessible local suppliers. Spatial plans postulate all people should reach goods and services for short-term demand within an acceptable distance and time. Particularly in rural areas, many villages and tiny towns do not have any local supplier at all. In the retail sector, the huge supermarket companies require at least 5,000 inhabitants in the catchment area to run a shop. Demographic shrinkage, restrained public budgets and changing demands of the users expand the gaps in the area wide supply. Particularly rural areas are affected by spatial concentration and closing-down of local supply facilities. Challenges arise particularly for those rural residents who do not have a car available: very elderly people, children and disabled persons. The local supply is an important topic in rural development policy in many European countries. In Germany, the federal state, the Länder und municipalities have been funding many model projects and village shops including supplemental services for 20 years. The reason for the public intervention is not just the supply function of village shops but also their social functions as meeting and communication point, a place of local identification and a source of voluntarism and social capital. In the scientific literature, four different approaches assuring the provision are discussed: Firstly, a shop manager as a franchise holder cooperates with a major supplier who delivers nor only the goods but also the concept including the corporate design, the location study and marketing activities. The second option is to combine the sale of goods with several supplemental services. Thereby, agglomeration effects are possible and more clients are attracted. The third possibility involves integration markets. Such markets provide job opportunities for disadvantaged groups like disabled or permanently unemployed persons. Therefore, the shops receive wage subsidies and are economical at locations with low demand. Civil shops form the last approach. Volunteers from the village work in the management and service of these shops and save costs. In practice, combinations of these different strategies appear. The problem remains that many villages and hamlets are too small for such facilities. or shops has to close down in spite of public subsidies. More knowledge is needed, in which context a certain supply approach is feasible and how public actors can foster such suppliers. Against this background, the contribution presents empirical findings from Germany. The research questions are: what different types of village shops exist to safeguard local supply for the resident population, what is their contribution for local supply and social life, and how is their economic viability? To answer these questions, the presentation goes beyond the well known best practice examples and case studies. Therefore, about 100 village shops are researched. Methodologically, secondary statistics are analysed, GIS-data calculated and telephone survey of shop managers conducted. The presented data include several indicators for the location, the organisational form, the provision of good and services, business characteristics and the support by public actors and civil society.

#### Gateway D1

# MOBILITY AND SPATIAL JUSTICE IN MONTREAL : HOW CIVIC ACTORS FRAME THE ISSUE FOR THEIR NEIGHBORHOOD AND METROPOLITAN AREA

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Issues of mobility and transportation have in the last years been heavily debated in Montreal. Several highway projects were contested, and civic groups have deployed local projects of "alternatives forms of mobility" within neighbourhoods. The civic and public actors involved have presented several arguments claiming for social end environmental justice. Doing so, they have produced particular representations of the neighbourhood and of the fragmented city-region, showing spatial injustices produced by mobility practices and transport infrastructures. Going further, they have also debated remedies to those spatial injustices. Harvey proposed in 1992 to consider the plural declinations of justice as a particular language game which has the potential of forming a meta-discourse for movements of opposition. Following this proposition, we consider how actors mobilized on alternative mobilities in Montreal have interacted in arenas of deliberations to arrive at certain visions of spatial justice. Several actors have been contesting the injustice and spatial inequalities in the organization of the transport system in Montreal : the health public agency, community-social groups, environmental organizations.

While the transport system is described as being produced at a regional scale, its concrete effects are denounced in relation to specific neighbourhoods. Thus, in parallel to opposing enlarged car infrastructures which would ever increase health issues linked to car traffic (pollution, accidents), much was done by civil society to put in place mobility alternatives within neighbourhoods. Such alternatives concerned mostly the implementation of car traffic calming measures as well as infrastructures to promote further walking and cycling (the so-called slow modes). Such mobility alternative projects have not been the traditional topics of engagement of neighbourhood community groups, which focused before on affordable housing and more local employment. It is within a participatory local forum that such issues of mobility irrupted while residents asked community groups to focus more on issues of quality of life: greening the neighbourhood and improving the accessibility, conviviality and security of mobility within it. This local demand coincided with the re-framing of the issue by the public health agency and environmental organizations, which encouraged pilot local projects on alternative mobilities by local communities. This interesting mix of actors thus articulated certain spatial justice claims through their representation of what mobility practices and infrastructures did to their neighbourhood and the metropolitan region at large. First, it produced an unjust deterioration of the quality of life for poorer neighbourhoods next to highways, which were also less accessible in public transit. The injustice here lies in the health effects of residing close to highways, as well as in the feeling of being confined within a neighbourhood with little accessibility other than by car. Second, it produces higher insecurity and higher car accidents within the central neighbourhoods, where car traffic come from overall the city-region, transiting through neighbourhoods in which a majority of residents don't use car. The injustice here is tied with a sense of responsibility. Whereas central-city residents use less cars, they are the ones who are the most affected by its health hazards. Finally, the health and environmental effects of highways as well as the centre-periphery divide in their representation of mobility practices showed a spatially and socially fragmented metropolis. The actors mobilized on mobility issues in Montreal have thus articulated a mix of environmental and social justice which is very much spatialized. It also goes further than the liberal formulation of Harvey (1973), who formulated territorial justice as the just distribution of social goods throughout territories in relation to needs, the overall contribution to the common good (in the other territories as well) and the compensation for those suffering difficult environmental situations. Not only looking for compensation; some actors also demand a change in the overall mobility system which creates such injustices (reducing car traffic and its organization at the metropolitan scale) (a more revolutionary demand getting closer to Harvey's second formulations). In this, sense, their claims are closer to a Right to the city (Lefebvre 1968, also Harvey 2009), in advocating the right of improving the use value of their neighbourhood above the fluidity of car circulation. But the local-based propositions of mobilized actors in Montreal pose a key question to the Right to the city concept : to what extent the right to the city and the right to mobility are co-constitutive? Can the affirmation of one or another harm the other in the current mobility system of the metropolitan area (with use of cars)? In other words - do the visions of justice encourage a new spatial consciousness integrating the neighbourhood and city-regional scale – or do they reproduce a climate of territorial fragmentation with only archipelagos of "car resistance"? The mobilized actors have themselves been struggling with and debating such issues, processes which form the basis of our analysis.

#### Gateway L

# ORGANISING IMPOSSIBLE BRANDING ACTIVITIES: THE FOUR-DAYS MARCH IN NIJMEGEN AS A NETWORKED EVENT.

Arnoud Lagendijk, Radboud University, NETHERLANDS Stefan Dormans, Radboud University, NETHERLANDS Bas Hendrikx, Radboud University, NETHERLANDS Chris Frencken, Radboud University, NETHERLANDS Frank de Feijter, Radboud University, NETHERLANDS

Each summer the city of Nijmegen, the Netherlands hosts the 'Vierdaagse', a four-days walking event in which 45.000 walkers participate and which is visited by more than a million visitors. A substantial part of the walkers and visitors are from abroad. While this tradition goes back to the 1920s, and while Nijmegen is considered as the 'largest' of such events in the world, the organisation of the March poses major challenges. These challenges stem both from internal development, such as the increasing role of festivities around the March, and from the external influences, notably changing attitudes towards health and safety, and changing climate conditions. Using assemblage theory, this paper probes the organisational challenges of the event and the way they are met through intense interaction between the event and the wider spatial environment, including the municipality, transport authorities , weather agencies and the university. Taking a broader perspective, the 'Vierdaagse' will

be conceived as a case of what we call 'geographical becoming'. In a nutshell, geographical becoming stands for the emergence of a phenomenon as a double network, at the local and global level. A phenomenon like the 'Vierdaagse' constitutes a local network in the way it enlists and combines a variety of local agents, resources and practices. At the same, it is part of a global network of circulating practices and knowledge, and of institutionalisation. The latter includes, in particular, the operation of two international associations: the International Volkssport Association (IVV), and the IML Walking Association (of which Nijmegen is a leading member). The theoretical and methodological basis for understanding the 'geographical becoming' of the Vierdaagse is drawn from assemblage theory. This approach serves to integrate the more material and expressive aspects of events like walking marches, and to shed light on the local-global nexus in which such events unfold. Assemblage theory, we argue, is especially helpful in unravelling the dynamics behind the emergence and development of such a complex activities. The paper shows that, in the long history of the Vierdaagse, some core issues and practices involved in organising the event have undergone major shifts, while others have remained more or less stable. These changes are due to internal processes and pressures, as well as external influences stemming from both the local environment and international networking. Critical events, such as fatalities causing the event to be cancelled, have played a major role in such change. Not only can we thus trace the factors behind geographical becoming through time and space, we can also identify an enduring 'gene pool' sustaining the growth and diffusion of walking marches. This pool consists of standards, organisational practices and stories, and is also important in considering the future prospects - in terms of opportunities and risks - for such mega branding events.

#### Gateway C CHALLENGING MIGRATION THEORY: RETURN MIGRATION AS AN EPISODE IN TRANSLOCAL MIGRATION BIOGRAPHIES?

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Engaging with recent theoretical debates conceptualizing transnational migration as circular or multi-directional (Faist 2000) and producing translocal contexts for every-day life (Brickell & Datta 2011), the paper discusses empirical data collected in an online survey with emigrants and returnees from eight countries in Central Europe conducted by the authors during the first half of 2012. For the enlarged EU, statistical data shows that since 2004 the dominant migration pattern is an inner-EU East-West movement. Today, public debates in the New Member States evolve around a large scale brain drain and an increasing loss of skilled labor. The number of returnees also seems to increase. Yet, return migration is still difficult to assess as comparative data is missing. The paper analyses in a comparative way transnational migration biographies of emigrants and returnees from and to Central Europe challenging current understandings of transnational migration. While circulating, these migrants are supposed to maintain tight relations to family members, friends, and also professional colleagues in their former places of residency (Pries 2004, Glick Schiller 2005) and are expected to raise their professional profiles while being abroad (Dustmann & Weiss 2007). With the data gathered in the EU-funded project 'Re-Turn', we interrogate personal and professional relations as well as gained capacities. Hence, we highlight social and cultural aspects of these new forms of migration with a comparative approach broadening the empirical base which has so far mainly focused on monetary effects of transnational migration (remittances) in the context of rather unequally developed world regions.

#### Gateway B1

# THE DISCOURSE OF SUSTAINABILITY, SEA LEVEL RISE, AND THE POLITICS OF CLIMATE JUSTICE ON THE NEW YORK CITY WATERFRONT

### Steven Lang, LaGuardia College at CUNY, USA

Increasingly, in cities throughout the world, sustainability has emerged as a dominant discourse in waterfront redevelopment schemes. This is particularly the case on the New York City waterfront. After the launch of its long-term sustainability plan called PlaNYC in 2007, New York City made ideas about sustainability a core component of its waterfront revitalization and planning policies. More recently, the city launched its Waterfront Vision and Enhancement Strategy (WAVES), an interagency initiative that will establish a long-term sustainability blueprint that will change the way New Yorkers interact with their waterfronts and waterways for

generations to come. Sustainable visions for the waterfront in New York City are driven by a neoliberal urban agenda in which policymakers and planners in partnerships with developers have aggressively used property-led development schemes and rezoning strategies to transform derelict waterfront spaces into valuable real estate. At the core of PlaNYC is an implicit faith that "green" economic development will provide the necessary trickle-down effects for overcoming environmental and economic problems confronting the city. Such an approach both exacerbates inequalities and downplays potential threats from environmental hazards and pollution. This is especially the case with the city's waterfront brownfield development strategies, where sustainability means cleaning up brownfields- sites where previous industrial uses have left behind contamination- and transforming them into attractive sites for real estate investment and capital accumulation. Waterfront policies and development strategies involves struggles between diverse forces and interests. While attempts to reclaim waterfront by property led- development schemes has been praised by many, they have not gone uncontested. On the contrary, in many of city's waterfront neighborhoods undergoing redevelopment, competing visions of what the waterfront is, how it should be used and what it should become collide. One area of contestation concerns how climate change and sea-level rise will impact coastal areas slated for redevelopment. In the summer of 2011, Hurricane Irene helped to intensify concerns about sea level rise and coastal flooding issues leading many to question the city's sustainable, smart growth agenda for the waterfront. Indeed, many have concluded that there seems to be a contradiction between waterfront planning policies that are preparing NYC for climate change and sea-level rise while simultaneously encouraging more people to live along the waterfront in areas at risk from climate change In New York City, sustainable waterfront redevelopment and environmental justice are inextricably intertwined because many of the city's toxic waterfronts targeted for cleanup and redevelopment are located in low-income and minority communities. Environmental justice is concerned with the inequitable distribution of facilities as well as the inequitable distribution of environmental amenities, such as parks and open space. The city's waterfront is a tale of two cities. While some areas have become waterfront gold coasts where high-end residential, retail, and entertainment venues exist alongside amenities such as esplanades, public spaces and parks, others areas have become repositories of waste transfer stations, power plants, sewage treatment plants and a host of locally unwanted land-uses. Even if the city slows down development on the waterfront, the fact remains that many coastal areas are densely populated placing many people at risk as a result of potential threats from climate change and sea-level rise. Such concerns have made what has come to be called climate justice a key issue for many vulnerable environmental justice communities located on the waterfront. Climate justice is a relatively new area of research and analysis that focuses on the ethical and equity dimensions of climate change. The term also describes a social and political movement that demands that government policies and actions aimed at mitigating and adapting to climate change address equity and environmental justice concerns. In New York City, sustainability is not only a top-down affair There are multiple community groups and activist organizations that are working on assorted bottom-up sustainability and climate change resiliency strategies for the waterfront. This paper will document and analyze the extent to which climate change, rising sea- level and coastal flooding issues are addressed and framed by governmental, business and real estate interests as well as assorted community and environmental organizations involved in waterfront sustainability issues. It will focus on how different constituencies struggle to balance the 3E's of sustainability- environment, economy and equity- as they reclaim the waterfront while taking climate change and sea level rise considerations into account. In particular, it will document and explore how environmental justice communities located in vulnerable waterfront areas frame issues of climate justice as they attempt to influence sustainability efforts and climate change mitigation and resiliency strategies on the part of city government.

### *Gateway M3* **DEVELOPING AN INTEGRATIVE TERRITORIAL GROWTH STRATEGY AT THE TOP OF EUROPE: THE CASE OF VÄSTERBOTTEN, SWEDEN**

## Lars Larsson, Umeå University, SWEDEN Robert Sörensson, Umeå University, SWEDEN

Within the ESPON funded project Regional Integrated Strategies in Europe: Identifying and exchanging best practice in their development four case studies for comparison are produced. The four regions are Birmingham/West Midlands in the United Kingdom, Region Sealand in Denmark, the Randstad Region in the Netherlands and finally Västerbotten in Sweden. In this case study the case of Västerbotten is presented and analysed. The overall aim of the project and also this case study is to understand and analyse how actors involved in developing the region can achieve higher levels of efficiency through increased integration of ambitions, resources and efforts. Some twenty practitioners involved in regional planning in Västerbotten have

been interviewed in order to achieve an understanding of regional planning practices and perspectives. Further, relevant legal and policy documents have been analysed. Guiding concepts in the analysis have been related to mainly policy integration and related concepts such as multi-level governance and collaborative planning. Policy integration has been defined as process of either co-ordinating or blending policies into a unified whole, or of incorporating concerns of one policy into another. The process of sewing together and coordinating policies across horizontal and vertical levels of governance are therefore essential. Once these processes interact and ideally promote change towards increased levels of integration, an integrated policy system aiming to fulfill multiple objectives and create synergies could be achieved. Along the dimensions of sectoral integration, territorial integration and organisational (strategic and operational) integration it can be concluded that the Västerbotten strategy documents contain flavours of all three dimensions. In terms of sectoral integration the cross-sectoral (dimension of) integration includes relations between the regional growth strategy, national employment policies, and the EU cohesion policy. National and regional ERDF and ESF programmes are also integrated issue-wise even if not along previously established sector organisation, e.g. focus on entrepreneurship and competence rather than industry and education. Inter-agency integration can be exemplified through the Structural Fund Partnership where state agencies, municipal actors and e.g. labour market organisations make consensus based decisions on project funding. Territorial integration can be exemplified through infrastructure investments. They include both vertical (across national, regional and local scales) and horizontal integration between neighbouring authorities. Infrastructure and transportation are among the top three development issues mentioned by the interviewees which indicate its importance also in relation to development potentials. Organizational integration is most pronounced in the coupling between strategies, prioritized projects and funding of the latter. One could argue that this coupling is the backbone of the regional growth strategy in Västerbotten. An outside observer commented that this coupling could be characterized as a form of 'retrofitting' projects to funding. Each aspect and its consequences for integrated territorial planning is further developed and discussed in the paper.

#### *Gateway G*

## NETWORKING REGIONALISED INNOVATIVE LABOUR MARKETS

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Innovative and creative labour is increasingly recognised as having a key role in regional economic development. The more advanced the processes of innovation-led entrepreneurship are, the more important become highly skilled scientific, engineering, professional and university trained personnel. Similar to the process of regionalisation that resulted in the building the Islands of Innovation (EC 1994), such highly-skilled individuals are concentrated in particular regions and locations. There are two tendencies that can be identified immediately: (i) the existing concentration in Europe and the US of innovative labour in a limited number of locations (as elsewhere in the world) and (ii) the tendency, on both continents for further concentration at these Islands of Innovation. Both patterns have clear consequences for the availability of skills in question. For example, those regions that are able to attract and retain highly skilled labour will be able to continue successful development. Other regions may have to face the problem that either labour moves out towards the Islands of Innovation or that attracting the most creative scientific personnel is very difficult. The recruitment and the relationships of these professionals to the region are also fundamental to collaborative networking with partners elsewhere in Europe or the US. The special issue will therefore deal with the two processes: the regionalisation of innovative labour markets and ' the migration of such labour to Islands of Innovation. We will discuss both the role of innovative labour markets for advanced regional development and the migration of researchers and engineers to these regions or locations. In doing so, we will take into consideration the extent to which these regionalised labour markets function within global or continental labour markets through recruitment; for this special issue this means to what extent is such innovative labour recruited by firms and universities in the US from Europe and vice versa. Existing studies indicate a clear continental picture; there is only a low percentage of recruitment taking place across the continents. They also indicate, to a certain extent, that European integration is taking place in these regionalised innovative labour markets. In addition, other studies show that once the highly skilled have been migrated between Islands of Innovation they frequently return to the innovative location from whence they started. These processes of migration to and from the innovative labour markets of the Islands of Innovation are the basis for both knowledge fusion from different origins and the building of collaborative networks. Thus, recruitment by firms located at these Islands of innovation contributes to the formation of networks of regionalised innovative labour markets, a process that could be understood as an important contribution to innovative networks across regions and continents. Moreover, many such networks

have sectorally specific patterns. This special issue therefore highlights how mobility operates in a variety of national, regional and sectoral contexts, and explores the drivers of those patterns. We consider examples of particular situations that help develop further understanding of regionalised innovative labour markets in Europe in the context of trans-continental flows of labour. These are illustrated in: the situation of such regionalised innovative labour markets within an emerging network of recruitment, and divergences between European and North American regionalised innovative labour markets, which arise because of the differences in migration patterns of the highly-skilled. These different perspectives of regionalised innovative labour markets will be introduced by a general paper by the editors as the first paper. This is followed by eight papers giving the perspectives. A concluding paper raises some new research questions.

#### Gateway K2

### THE REMARKABLE RESILIENCE OF FLORENCE, CITY OF ART

#### Luciana Lazzeretti, University of Florence, ITALY

The debate on the relationship between cities and innovation, which started from Jane Jacobs' seminal work (1969), has then focused on the effects of diversity vs specialization in localized knowledge spillovers. An intensification has recently taken place thanks to the literature on creative economy. The concepts of creative city, creative clusters and cultural-creative industries have come to the fore and have developed alongside that of creative class (Florida, 2002). In parallel, the safeguard and preservation of artistic, environmental and cultural heritage within historical centres has become a relevant issue not only for urban planners and art historians, but also for economists and management scholars interested in creativity and innovation. If culture was previously considered as an asset to protect and preserve for its capability to foster economic development, nowadays it is mainly considered as a resource for innovation. The social and local dimension of creativity is rapidly asserting itself, making the relationship between creativity, community and place all the more relevant. The main underlying hypothesis is that ideas and innovations develop more easily in informal settings and public spaces whether they be physical places such as cities of art and industrial districts or virtual spaces like online social networks such as Facebook and Twitter .These observations must be seen in connection with the emerging open innovation paradigm, which stresses the role of creative contexts and external knowledge in addition (or in replacement of) to knowledge created in internal R&D labs. Over the last decade, the variety of contributions to the debate has further enriched thanks to the ecological approach with to its application of the concept of resilience to social systems. Resilience, adaptability and transformability are considered as the three related attributes of social-ecological systems that determine their future trajectories In this paper, we aim to contribute to the still under-researched debate on urban and regional economic resilience by proposing some reflections focused on cities of art. In particular, we aim to study the stable resilience of cities of art facing the challenge of the second modernity and the globalization process. According to Holling (1973), resilience is not only the capacity to absorb shocks and maintain function, but it also includes a second aspect concerning the capacity for renewal, re-organization and development, to be taken in consideration for redesigning a sustainable future. In this sense, we discuss the idea that some creative cities are also resilient cities as they are capable not only of preserving and economically enhancing their material and immaterial cultural and artistic heritage, but also of transforming themselves in response to external pressures, generating local development and growth. Following the concept of creative capacity of culture, we consider the city of art as an informal, collective open space that can absorb and recombine art and culture leading to novelty and renewing. We present and discuss three case studies of lateral, transversal and path-dependent innovation occurring in Florence through cross-fertilization and serendipity between cultural and creative clusters, museums and art restoration centres (the 'Florence and Science' exhibition, the use of laser technologies for conservation, and the discovery of the Stendhal syndrome). We look for an 'Renaissance innovation' combining arts and sciences as a result of a commonly-shared and embedded value.

#### Gateway F1 THE COHESION-ISATION OF THE LISBON STRATEGY THROUGH THE IMPLEMENTATION OF EUROPE 2020

### Robert Leonardi, LUISS University, ITALY Raffaella Nanetti, University of Illinois at Chicago, USA

It has been argued that the Lisbonisation of Cohesion Policy during the first three years of the current programming cycle represents a successful experimentation in the search of new forms of governance for both the Cohesion Policy and the Lisbon strategy. But our work in the field in 2010-2011 (Single Market and Cohesion Study) suggests that further changes need to be implemented before the Cohesion Policy can be put in a stronger position to contribute to the achievement of the new Europe 2020 objectives. In contrast to the considerable amount of attention has been given to the past 'Lisbonisation' of the Cohesion Policy, there is a singular lack of analysis of how the parallel process of 'Cohesionisation' (moving from an Open Method of Coordination model to a more Community Method model) of the Lisbon strategy has been implemented. In the National Reform Programmes (NRP) for the Member States that are major beneficiaries of Cohesion Policy the attempt to connect the two strategies is quite visible. A good example is provided by the Greek National Reform Programme, but one could also cite the Spanish or Portuguese NRPs. While Cohesion Policy and the Lisbon strategy have represented the two main pillars of the Single Market programme, we argue that now with Europe 2020 the two strategies are and need to be brought into even closer alignment. This is particularly the case given the changes that have taken place during the last two months of 2011 with then deepening of the crisis of the Euro area and the agreement reached on the 9th of December. According to which, closer control over the budgetary process within Member States will be exercised by the enhanced role of the Commission, thus enforcing the three types of conditionality (ex-ante, annual and ex-post) inserted in the new Cohesion Policy proposed regulations for 2014-2020. Our paper longitudinally analyses the Cohesionisation of the Europe 2020 programme, that is to say from its origins until today. Drawing on survey and documentary data its perspective incorporates the impact of the recent sovereign debt crisis as well as the implications of the draft regulations proposed for the Structural Funds and the overall Cohesion Policy, within the context of the evolution of the Single Market. The analysis reveals how the two policies have converge and may well have to be subsumed into one policy in the near future.

#### Gateway M

# CHANGING GREEK LOCAL GOVERNMENT IN TIMES OF CRISIS: A PRELIMINARY APPRAISAL OF THE 2010 REFORMS

### Vasilis Leontitsis, London School of Economics, UK

Greek local government has changed considerably during the last twenty years. The number of municipalities has been radically reduced by successive mergers and their competences progressively increased. In 2010, the Socialist government attempted to reshape the local and regional government maps with the so-called "Callicrates" law (Law 3852/2010). One aspect of the law dealt with merging the municipalities further. More specifically, local government authorities were reduced from above 1,000 to just above 320. However, at the same time, the country started experiencing its biggest post-war economic crisis, which continues unabated. For the success of such a long term reform process vast sums of money were needed. Nevertheless, although a support funding scheme (called ELL.A.D.A.) was set in place, it never materialised, while in the last two years local government revenues have been reduced by more than 50%. This paper offers a preliminary appraisal of the 2010 reforms against the background of the ongoing acute financial crisis the country is facing. Its main focus is on island municipalities, which have been particularly targeted by the law. It attempts to examine to what extent could the 2010 local government reforms be branded as a success, taking into consideration the political, administrative and financial changes in the municipal standing that have recently taken place. Although the municipal administrative competences have been increased their financial capacity remains precarious, something that has affected negatively the application of the reforms in practice. Furthermore, the fact that the law was ill-prepared and hastily applied has created much confusion. The inadequate municipal resources and the organisational problems that have infested the reforms suggest a strong path dependence, which the 2010 law failed to change. Hence, despite the fact that a window of opportunity was opened that could lead towards the creation of strong local authorities, this does not seem to have materialised. This early appraisal is methodologically based on a combination of document analysis and interviews taken in Athens, Rhodes and Corfu, while it is theoretically informed by historical institutionalism.

#### Gateway G3

# FINANCIALISED OFFICE MARKETS CHALLENGE LOCAL POLITICS: THE EXAMPLE OF THE CITY OF LUXEMBOURG

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In our paper, we illuminate the conflict between residential and office markets in the centre areas of neoliberalised cities with a strong financial sector as one specific outcome of the creation and destruction of city spaces through the on-going financialisation process. In some specific urban economies, such as in Frankfurt, London, Luxembourg or Paris, the financial industry is a crucial part. Such cities are also called (international) financial centres (IFCs). For a smooth running, the financial industry strongly demands a comprehensive infrastructure in terms of offices. Office real estates are of weight-bearing meaning in this regard. They promote the global competitiveness of the location through the physical allocation of office space and constitute a driving force for the urban economies through the building industry. The office space is a store of value as capital flows affect investment yields and investment yields affect capital values (Lizieri 2009). The entrepreneurial city's originating architectural skylines express economic power and symbolise global claims to leadership of cities in a reinforced inter-urban competition as global centres of economic control. Thus, especially cities with IFCs can be defined as commodified units of competition in a global space of competition (Schipper 2010). In general, there are distinct results for the real estate sector in financialised urban economies. Though the city of Luxembourg does not show yet the large amplitudes of an office market typical for IFCs such as London or Singapore, another tendency is prevailing instead. The future trajectory of land-use is impacted by the existing urban form so far. Unintended local planning policies in the long past shape today's specific challenges. We aim to shed light on defining market features such as trading dynamics on the real estate investment market or the impacts of speculative completions in this - with regard to its sheer size - still comparably diminutive office market. How did the different actors of the financial markets, the real estate industry, and/or the city planning shape specific real estate and land-use trajectories in different parts of the city? What were (and still are) the defining features of the enormous dynamism of urban property markets, e.g., with regard to some large-scale projects? In our paper, we aim to better understand these phenomena, since residential and office markets will further compete for the scarce resource of available space in the city of Luxembourg, thus, reinforcing the critical debate on the right to the city.

### *Gateway M1* THE INSTITUTIONAL CHALLENGES OF MULTILEVEL GOVERNANCE FOR DEVELOPING LOCAL CLIMATE ADAPTATION IN TAIWAN: THE CASE OF TAIPEI

## Yu-Tzu Lin, Delft University of Technology, NETHERLANDS

In responding to the climate impact on the public, private, and civil society actors, governance is a crucial component in the achievement of effective climate planning and action(Anguelovski & Carmin, 2011). However, many states and cities encounter institutional challenges as managing adaptation planning within the existed jurisdiction and governing modes. Flexibility and integration are two important core characteristics of adaptation that emerge from the process of institution framing and reframing in respective political or policymaking system. What is the emerging institutions, policies and practice in the different levels of government to develop climate adaptation policy? What roles do major national and local government actors play and how so they interact to shape policy? In Taiwan, about 70% of the population lives in urban areas which occupy less than 30% of the total land area, but are most at risk from floods and landslides. In 2009, Typhoon Morakot brought high flood discharge, long duration rainfall that lasted more than fifty hours with max 1623 mm daily rainfall and caused 623 deaths. It became the main driver for the national government to initiate the national adaptation policy as a way of direct adaptive responses. Following the guidelines, adaptation action plans and programmes with disaster management thinking across ministries were integrated in 2011. For promoting climate adaptation policy development from national to local levels, the central planning authority is forming a partnership with the local government by helping local climate adaptation strategy(LCCAS) planning as demonstration as well as by drawing up the standard operating procedure(SOP) of initiating LCCAS. Taipei city, partnered with the research team from universities, was chosen as one of the demonstrating area concerning its vulnerability, accumulated mitigation effort, the cooperating willingness and the political importance. These actors at different levels, from different sectors in municipality, and of academic are integrated into the Panel on LCCAS of Taipei. One aspect of formalization is the establishment of dedicated climate units, either within a relevant department or as separate and cross- cutting office. Bulkeley and Kern(2006) discern four governing modes for local authorities' climate change governance: self-governing, governing through enabling, governing by provision, and governing by authority. As city governments devise to initiate LCCAS, they tend to formalize and institutionalize their work in order to facilitate implementation and strengthen the legitimacy, coordination, and support for such policies across departments. However, in Taiwan, the actors at national level influence others at the same level and intervene in the governance at lower levels of authority. The mechanism reflects the tradition of centralized planning system, the central government has been active to dominate the spatial development through direction. By participant observation and interview, this paper adopts a institutional framework to elaborates the governing mode which appeared in the development of local climate adaptation strategies driven by the national government. The issues and challenges of achieving an effectively integrated climate adaptation planning with more stakeholder engagement during planning process and future implementation on multi-level governance are addressed as conclusion.

#### Gateway A1

## DO RURAL DEVELOPMENT PROGRAM MEASURES FOR THE ENCOURAGEMENT OF RURAL TOURISM WORK? A SPATIAL ECONOMETRIC ANALYSIS

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This paper analyses the impact of Rural Development Program (RDP) measures focussing on tourism have on the growth of tourism and on the economy in rural areas. We first explored tourism in NUT2 regions in the EU with a spatial data analyses and then we applied spatial econometric analyses on tourism where we take into account the RDP spending on the measures that encourage tourism. For the spatial regression analyses, we use the indicators of the CMEF framework. The data were collected from Eurostat. The spending on the RDP measure 313 encouragement of tourism is not uniformly distributed over the NUTS 2 regions in the EU. The spatial analyses of tourism measured by the number of nights spent by non-residents showed the presence of spatial dependencies in tourism. Based on the spatial dependency tests of the classical regression model, a spatial error model is estimated. The number of bed places positively affected the total number of night spent by non-residents. RDP spending on encouraging tourism did not have a significant impact on tourism.

## Gateway O BRIDGING THE KNOWLEDGE-GAP BETWEEN THE OLD AND THE NEW: THE CASE OF TOURISM INNOVATION PROCESSES IN VÄSTRA GÖTALAND REGION, SWEDEN

### Kristina Lindström, University of Gothenburg.SWEDEN Anders Larsson, University of Gothenburg.SWEDEN

In spite of a growing awareness of the importance of tourism in regional economic growth, it has until recently not been identified as an economic sector per se. Consequently, in many regions, tourism has been treated as separated from the traditional manufacturing based economic activity. This division might create a technological, institutional and cognitive gap between traditional and new sectors and hence missed opportunities to re-cycle and combine knowledge and innovation in regional tourism development. Theoretically, tourism research seldom explicitly links to the wider regional economic context. As we argue that tourism research can benefit from economic geography, the theoretical ambition is to identify and apply relevant theories in the intersection between economic geography and tourism geography. The focus is predominantly on the issue of territorial knowledge dynamics and innovation in a broad sense. The aim of this paper is to analyse the possibilities and limitations for innovation based on combination of knowledge between traditional and new sectors of the economy. It will specifically focus on a number of tourism innovation cases in Region Västra Götaland. The cases are selected in order to identify and exemplify mechanisms that facilitate the collaboration and knowledge exchange between tourism and other sectors.

#### Gerd Lintz, Leibniz Institute of Ecological Urban and Regional Development, GERMANY

Landscape, defined as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (European Landscape Convention), can be seen as an important asset of urban and regional development. Landscapes can, in favourable interplay between ecosystems and human activity, provide services such as clean water, clean and cool air, biodiversity, as well as spaces for recreation (cf. Termorshuizen and Opdam 2009). An interesting challenge to landscape development is the political aim of boosting the use of renewable energy sources to protect the global climate by reducing CO2 emissions. Climate change mitigation as a major goal of environmental policy requires energy production patterns to be changed, a task usually considered to fall within the ambit of economic policy. Renewable energies are even advocated as a key to regional economic development. However, this in turn has impacts on the landscape, such as wind farms, which are often perceived as adverse to activities like nature-based recreation. One environmental policy thus contradicts another. These observations show that there is a complex fabric of policies woven in a complex multi-actor, multi-sector, multi-level governance setting. While environmental policy and economic policy are conventionally seen in opposition to one another, there are also strongly competing policies within the environmental field that have yet to be discussed at any length. This indicates that the necessary integration of environmental-policy aims in economic policy needs to be complemented by the intensified integration of sub-policies within environmental policy. This paper maps out the policies involved in landscape development with regard to renewable energy sources and, in the interests of rational policy-making, highlights the need for external and internal environmental policy integration. Moreover, it contributes to developing the concepts of landscape policy and governance (cf. Görg 2007) with particular regard to the local and regional levels. The analysis is based on actor-centred institutionalism (Scharpf 1997), on the environmental-policy capacity approach (Jänicke 2002) and that of environmental policy integration (Nilsson 2005, Jordan and Lenschow 2010).

#### Gateway C

# LIVING LIKE A SINGLE MOM: THE SOCIAL AND ECONOMIC IMPACTS ON THE FAMILIES OF MIGRANT WORKERS FROM CAPE BRETON

### Doug Lionais, Cape Breton University, CANADA Kelsey Peters, Cape Breton University, CANADA

Post-industrial communities in peripheral regions face uncertain futures in the context of global economies. One coping mechanism for families living in such places is to engage in migrant work. In New Waterford, a former coal-mining town on Cape Breton Island in eastern Canada, many families have responded by having one spouse migrate to work in the tar sands in Western Canada. These migrant workers spend several weeks to several months working the tar sands with brief times spent at home between rotations. As such New Waterford continues to play a primary role in in the extraction of fossil fuels. The mostly male workers continue to work in dangerous conditions extracting fossil fuels in peripheral regions. Rather than working the pit down the road, however, they now work the oil fields a continent away. The remittances from such employment are an important part of the local economy. However, the economic benefit often comes at a cost. This paper explores the experience of the families of migrant workers whose families remain in New Waterford. Such families suffer from a variety of issues including parenting and relationship stress as well as mental and physical health problems. Despite the drawbacks, however, most families are dependent on the new flows of income and are reluctant to alter their situation.

#### Gateway C

# LABOUR MARKET SITUATION IN CENTRAL-EASTERN EUROPEAN COUNTRIES – IS THERE ANY HOPE FOR A BETTER POSITION?

### Katalin Lipták, University of Miskolc, HUNGARY

My paper presents the labour market situation, in particular the employment, unemployment trends by the Central-Eastern European (CEE) countries, which are joined the European Union in 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia). The group of these countries is called, somewhat imprecisely in geographical terms, Central Eastern European region. A general feature of the exsocialist countries of the region is that they inherited a relatively developed non-market sector from the era of state-owned economy. My hypothesis states that the labour market position of the Central-Eastern European transitional countries is different by the employment. According to my hypothesis, the economic revitalizing effects of the employment policy cannot be experienced so strong in the underdeveloped regions and only temporary results can be achieved in the social area, because of the short-term focus, Economic and social reforms in the Central-Eastern European economies have induced important output changes since 1989 (change of socialist regime). According to Kornai, open unemployment was unknown in socialism, the employment rate was very high; each worker could feel his or her job safe. Rather an inverse disequilibrium was typical. The socialist economy resulted in chronic shortage, one manifestation of which was - at least in the relatively more developed and industrialised Central Eastern countries - the chronic unemployment. This paper focuses on the major forms of labour market indicators and examines their significance in the Central-Eastern European transitional countries. The three research questions the paper attempts to answer are:

- 1. Is there divergence or convergence between the CEE countries in the prevalence of the labour market situation?
- 2. What are the differences between the major labour trends in these countries?
- 3. Could be solved the world economic crisis by the help with the different labour market policies?

The effect of the global economic crisis has been perceptible in Central Eastern Europe, too. I would like to analyse this situation too. The methodology of the paper is the analysis of available statistical data, the study and critical analysis of the situation, using some statistical methods.

#### Gateway UF1

## PARISH PLANNING IN THE URBAN FRINGES OF THE LEEDS CITY REGION: LESSONS FOR LOCALISM AND NEW MODELS OF NEIGHBOURHOOD PLANNING IN THE UK.

### Steve Littlewood, Leeds Metropolitan University, UK

'Localism' is a concept that has been given renewed impetus under the UK's Coalition Government, not least from its close attachment to the much trumpeted political agenda of the 'Big Society'. However, it harks back to a long tradition of communitarianism, from garden cities, to post-war community empowerment rhetoric and the more recent promotion in the UK of a Sustainable Communities Plan. 'Localism' was an explicit part of the discourse of the New Labour Government, both as a broad representation of political engagement with communities and as an explicit signifier of participative planning processes. Part of the latter agenda was to encourage the development of parish plans, which were enthusiastically adopted by many urban fringe communities, but which tended to receive little recognition from planning authorities, either in the recommended form of supplementary planning guidance or in any other formal capacity linked to local planning frameworks. In short, many planning authorities turned a "Nelson's eye" on this manifestation of localism, perhaps due to the inherent conservatism of the planning system and a tendency of its operatives to work in legislative 'silos'. Now, with the emergence in policy of the Localism Bill and Neighbourhood Planning there is a more explicit mandate to bring parish/neighbourhood planning into the mainstream planning process. This paper draws upon a study of the urban fringes of the Leeds City Region (LCR), taking as its background the endorsement of the LCR as a model of light-touch city region governance, local and subregional cooperation and connectivity post abolition of the RDAs and RSS's, and the need to relate community planning to a wider mosaic of interests, planning contexts and imperatives. It takes a close focus view of parish planning and community engagement and then widens its focus to look at the relationship of local planning to subregional agendas, governance and practice. The study appears to suggest that appetite to pursue the 'new' localism in an urban fringe context, to a point where actions both by communities and planning authorities might actually help deliver community empowerment, is limited. Widespread endorsement of the localism agenda appears to be struggling to ignite in traditionally conservative urban fringe communities, resources to support planning are limited, and local planning in danger of becoming a patchwork of dislocated local interests and discontinuities of little relevance to each other or to wider strategic regional and sub regional interests. Lessons learned suggest imperatives that the Coalition Government needs to take on board if their aspiration for realising localised planning is to succeed.

#### Gateway O

# RESHAPING ECONOMIC GEOGRAPHY OF CHINA: FOUR LITTLE DRAGONS AND A NEW ROUND OF CHINA'S WESTERN DEVELOPMENT

## Shiqing Liu, Sichuan Academy of Social Science, CHINA Rui Lin, China Securities Depository and Clearing Corporation Limited, CHINA

The reshaping of China's economic geography is evolving silently: 'Four Little Dragons' (Sichuan, Chongqing, Inner Mongolia, and Guangxi) in Western China are now leading Chinas economic growth. During the 11th Five-Year Plan period, the average annual growth rate of 'The Four Little Dragons' is 19.47%, compared with 16.49% of the whole country, 15.49% of the East. It is result of the law of the industrial transfers and driven by the policy for a new Round of the Western Development. However, in terms of economic volume and level, Eastern China is still the main force of China's comprehensive national strength and the propeller of China's modernization process. In the new round of development, the regional gap and competition advantage may occur in the new fields, including construction of the modern transportation infrastructures such as high-speedrail, opening-up, new strategic industries and industrial chain advantages, etc. In Twelve Five-Year Plan Period and the next 10 years, the West need accelerated developments in many fields including transit network construction, industrial development, opening-up, resource development and local harness, and post-Wenchuan Earthquake reconstruction, and promote the policies beneficial directly to the people's livelihood so that people in the West can get the real benefits during this period.

#### Gateway H1 THE EVOLUTION OF E-COMMERCE IN CHINA: SPATIAL DISTRIBUTION PATTERNS OF ONLINE SHOPPERS

### Jing Le Liu, University of Ottawa, CANADA Cassandra Cao, University of Ottawa, CANADA

The past three decades have seen tremendous growth in China's economy, which has contributed greatly to the vast transformations in its social landscape. In 2011, China's urban population outnumbered its rural population for the first time, signalling an enormous shift in the country's population distribution. In tandem with this growth in the economy, the rise of the Internet has also changed the composition of Chinese society, mainly affecting urban-rural interaction. The Internet has not only changed the way that people can access information, but also the way that economic transactions are handled. According to statistics from 2011, the number of Chinese consumers who purchased goods on the Internet reached 187 million, accounting for 42% of all Internet users in China. In the same year, total online commercial sales reached 774 billion RMB (122 billion USD), while in 2006 this number was only 28 billion RMB (4.4 billion USD). This represents an average increase of 95% per year, over the course of the last 5 years. Moreover, the share of retail sales made over the Internet has increased from 0.37% of all retail sales to 4.3% from 2006 to 2011. Although this percentage still remains relatively small, its growth rate is significantly larger than the overall growth in total retail sales. This study examines the evolution of the e-shopping phenomenon in China from a spatial perspective. While e-shopping behaviour and its geographic patterns have already been researched empirically in the US and the Netherlands, few studies of this type have been carried out using data from Asian countries. By carrying out an in-depth analysis of the geography of e-shopping activity in China over the last ten years, our research demonstrates that the spatial distribution of online shoppers initially clustered along the Eastern coastal regions, then gradually spread throughout the inland areas. This is a trend that hints at the eventual complete permeation of online shopping activity throughout the nation. Moreover, we confirm that the two major factors that determine the spatial distribution of online shoppers are innovation diffusion and accessibility efficiency. Innovation diffusion accounts for the clustering of online shoppers in the metropolitan coastal regions, as innovative lifestyle choices

and new communication technologies are more likely to be adopted quickly in areas of high population density. Accessibility efficiency accounts for the rise in popularity of Internet shopping in the inland regions, as people are more likely to shop online when their access to physical retail shops is reduced. Although this bimodal trend in the spatial distribution of online shoppers has already been observed in several western countries, this research confirms that these trends also exist in China, and that they are more evident due to China's huge regional disparity.

#### Gateway J

# (REGIONAL) COLLABORATIONS WITH UNIVERSITIES AND COLLEGES WITHIN THE CANADIAN WINE INDUSTRY: AN EXPLORATORY STUDY

## Evelyne Lord-Tarte, University of Ottawa, CANADA

In this paper, we address the question of the relative importance of universities and colleges on the innovativeness and competitiveness of regional economies as well as their impacts on innovation performance of wine firms in cool climate regions. Using a sample of 146 firms in the Canadian wine industry, (1) we compare the profile of firms collaborating versus firms non-collaborating with Higher Education Institutes (HEIs); (2) we investigate the motives of firms to engage collaborations with HEIs; and (3) we analyze the impact of these collaborations on the firm's innovation performance. This paper provides insights on collaboration activities between industry-HEIs and its relative importance on the innovativeness and competitiveness of wineries and wine regions in Canada. Given that the development of the Canadian wine industry is relatively new, this type of research has scarcely been performed concerning this issue in the context of Canada.

#### Gateway O1

# CREATIVE STRATEGIES OF THE DANISH PERIPHERY: THE CASE OF PROJECT DISTANT WORK IN NORTH DENMARK

#### Anne Lorentzen, Aalborg University, DENMARK

It has been shown how industrial restructuring towards the knowledge/culture/creative economy accentuates the socio-economic differentiation of national territories as creative and knowledge based activities tend to concentrate in metropolitan areas. In the same time small cities and peripheral places face economic and demographic stagnation as traditional workplaces close or relocate to low cost countries, and citizens, in particular young people, move to bigger cities with better opportunities. National level development policies, such as the Danish, most often focus on capital city development as the most effective in a context of global competition. Local and regional strategies are developed to respond to the challenges, and endogenous (cluster) growth strategies have been popular for decades. A new trend in local and regional development is the creative strategies. Creative strategies are integrative strategies related to different elements of development, such as access to highly skilled labor, entrepreneurship, and quality of life factors. They are inspired by Florida and Landry among others. Key words in regional development strategies are thus competences, innovation and attractiveness. In peripheral regions a particular element is further connectivity, as distance to the core represents a major challenge in all aspects of development. As part of a creative development strategy Region North Denmark has launched a new project – project distant work – with the aims of 1) keeping the highly skilled university candidates in the region 2) enable the employment of highly skilled in SMEs 3) to attract knowledge jobs to the region. The means to achieve that is to be an office hotel with digital communication facilities. The aim of the paper is to discuss the potentials of 'project distant work' from the perspectives of the locality, the workers and the participating firms and to assess the pros and cons of such projects.

# THE COHERENCE BETWEEN EUROPEAN, NATIONAL AND REGIONAL POLICIES FOR A MORE SUSTAINABLE URBAN MOBILITY – LISBON REGION AS CASE STUDY

## Ana Louro, Centre for Geographical Studies, PORTUGAL Eduarda Marques da Costa, Centre for Geographical Studies, PORTUGAL Patricia Abrantes, Centre for Geographical Studies, PORTUGAL Nuno Marques Da Costa, Centre for Geographical Studies, PORTUGAL

European countries have a strong framework to develop and operationalize its territorial and sectorial policies at several territorial scales, being a very relevant task to apply and reproduce the main assumptions to national and regional scales. Portuguese policy programmes and plans have been incorporating EU orientations, with particular relevance in 'National Spatial Planning Strategy' (PNPOT, 2007) and 'Sustainable Development Strategy' (ENDS, 2006), two top-down documents with structural implications in national and regional territorial models of development. However, several problems are found in this linkages, as the lack or overlay of territorial or sectorial policy and guidance documents and its action plans, the lack of relationship between policies at different territorial scales, the existence or nonexistence of a common 'language' regarding the definition of concepts, the difference about the timing of existing documents and the reality, the lack of updating and adapting the policies and diagnosis of the territory, between others limitations. This paper presents some project results of SPOTIA Project - Sustainable Spatial Policy Orientations and Territorial Impact Assessment -Contribution to Portuguese context, corresponding to the two first main project objectives - to assess coherence and relevance of Portuguese Plans and Policy Programmes and to assess coherence and relevance between National Spatial Planning Strategy (a top-down orientation) and other national programmes and the six regional spatial development under construction along 2008 and 2009 (North, Center, Lisbon, West and Tagus Valley, Alentejo and Algarve Regions). In this context we propose to analyse the context of appearance of the concept of sustainability at the three scales - European, national and regional - based on a collection of the main documents - Europe 2020 Strategy, National Strategy for Sustainable Development and one Regional Operational Programme, focusing one particular theme. The selected theme was the sustainable urban mobility: "Urban mobility should make possible the economic development of towns and cities, the quality of life of their inhabitants and the protection of their environment", despite all the challenges faced for these urban areas, towards a free-flowing and greener towns and cities, and smarter, accessible, safe and secure urban transport ({SEC(2007) 120). So it was added to this study some more documents, as Green and White Papers by EU: the communication "Keep Europe moving - Sustainable mobility for our continent" - Mid-term review of the European Commission's 2001 Transport White Paper (2006), the Green Paper 'Towards a new culture for urban mobility" (2007) or the communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Action Plan on Urban Mobility" (2009), and the Portuguese National Strategy for Mobility and National Transportation Strategic Plan. In the context of Lisbon Metropolitan Area (LMA) and starting on the previous cited documents, we pretend to understand how relevant is local level in planning system for sustainable mobility policy implementation, and having the LMA as case studies we pretend to understand if the territorial urban model influences the potentional for a more sustainable mobility, being a polycentric urban systems more or less successful in sustainable mobility? Being the first approach to this analysis, the main objective is to understand if there is any relationship between the main policy documents (with a territorial and sectorial basis), at three spatial scales -European, national and regional, having as case-study Lisbon region related with the theme of urban mobility. In this context we can identify two main topics: the question of governance multi-scale, because polycentric urban structures demands multi-municipal entities for transports and mobility sustainable policies; and the question of the need for an inter sectorial approach, due to the relation cost-benefits for families, that depends on the relation between cost and time to daily mobility.

### Gateway O BUILDING LAND OR BUSINESS ACCOMMODATION AS A DRIVER FOR REGIONAL GROWTH

#### Erik Louw, Delft University of Technology, NETHERLANDS Han Olden, Independent Consultant, NETHERLANDS

The production of business property involves both land and accommodation. In the 1980's and 1990's there was much discussion about the 'constrained location theory'. This theory emphasizes the role of urban space shortages in the context of increasing capital intensity of manufacturing processes (Baker, 1995). Due to this

shortage many companies operate in cramped and inefficient premises and moved to rural areas where more space was available. This theory was often used to explain the urban-rural shift in of manufacturing in the UK. However, Keeble and Tyler (1995) showed that also firms in rural areas struggled with insufficient supply of land to accommodate their growth. This raises the question whether the supply of industrial land in general has an effect on local or regional growth. Although this question is not sufficiently answered yet, it caused some research on supply barriers implying that a negative relationship is likely to exist (see also Adams et. al., 1994). The Dutch spatial and regional economic policies always have assumed that there is such a relationship. The development of industrial land on business estates has long been an instrument within the framework of the regional and local economic policies. That is why Dutch municipalities plan and develop industrial land in large quantities and are the main suppliers of industrial building land. This resulted in an oversupply of industrial building land in many regions (Needham & Louw, 2006). However, resent spatial policies aim at a reduction in this supply, with the result that a similar discussion about the 'constrained location theory' in England is now appearing in the Netherlands. In this paper we investigate whether there is a relation between the supply of industrial land and the production of business accommodation on the regional level at the one hand and economic growth in the other. A regional analysis will be performed with data from the Netherlands. It will be claimed that a large supply of industrial land will not automatically induce economic growth, whereas shortage may constrain economic growth. However, due to economic restructuring the probability that the latter will happen diminishes.

#### Gateway J1 MILKING THE MYTH: THE LEGACY OF SCIENCE AND TECHNOLOGY PARKS

#### Stuart Macdonald, Aalto University, FINLAND

For decades, academics have published papers on the role of science and technology parks. The conclusions of their research are generally that these parks are not always effective in commercialising new technology, creating new jobs, and inserting new vigour into depressed regions. Despite all the academic evidence, thousands of science and technology parks have been constructed all over the world, inspired by a universal conviction that they are the essential ingredient in a recipe for regional development. Why have academics been ignored? Similarly, the linear model of technological development at the heart of park theory has continued to thrive though it has long been eschewed by academics. And thus it is with the notion that Silicon Valley, the empirical inspiration for science and technology parks, resulted from the knowledge of Stanford University spilling out to generate innovation and wealth for miles around. This is nonsense, but even the loudest academic screams go unheard. So, whence comes has the enthusiasm for science and technology parks? Property developers, of course, but - more interestingly - from politicians and public servants seeking a political solution to a development problem. Is it in ignorance that they look to a solution in science and technology parks, or can it be that, even after all these years, there is still mileage in the park myth? In this context, 'myth' is taken to mean an idea whose criticism is simply inappropriate. This paper will work from the base provided by the author's research on science and technology parks in several countries over the last two decades. It will argue that the legacy of park development is a myth that now justifies a wide range of high technology and innovation projects. Drawing evidence from two recent consultancy studies, the paper will give examples of the uncritical acceptance of the mythic in these projects. So entrenched has the park myth become that it allows extortionate and sometimes absurd behaviour to pass unchallenged. It will also be argued that government funding for innovation projects is unlikely without a goodly dose of park myth. Perhaps academics have no lingering hope that notice will be taken of their findings. Perhaps academics have come to see the purpose of research entirely in terms of private benefit. When academic performance is measured largely in terms of publishing in the right journals, there is little incentive to promulgate unpopular ideas. It may be that allowing myth to be an acceptable justification for science and technology parks was actually well ahead of its time: the mythic has come to dominate academic argument generally.

## Stewart MacNeill, University of Birmingham, UK Gill Bentley, University of Birmingham, UK

The RISE project brought together 'stakeholders' and researchers from four European regions - 'Greater' Birmingham (UK), Randstad (Netherlands), Zealand (Denmark) and Västerbotten (Sweden). The aim was to explore 'good practice' approaches to the design, development and implementation of sub-national 'Territorial Strategies' in different European economic development and planning settings. In our part of the research we considered the implications of the major change in England where the current Coalition Government has abolished regional scale institutions and strategies - including winding up the English RDAs - and passed responsibility for economic development to a patchwork of 39 ' Local Enterprise Partnerships' (LEPS) said to represent 'functional economic areas'. Managing boards of the LEPs comprise representatives from business (the majority), local authorities and other influential organisations such as universities. At the same time, spatial planning powers have been returned to local authorities. The new LEPs have no statutory powers and, despite the rhetoric of 'localism', are dependent on central government agreement for finance. Their role is to influence and help coordinate policy rather than being involved in its implementation. In our case study area of 'Greater Birmingham', we have found considerable good-will towards the LEP thus far. However, there are a number of important questions about future workings. For example, the extent to which local authorities will continue to pool sovereignty with changing political imperatives and fortunes; whether business enthusiasm will wane as the delays and compromises inherent in public action become apparent; whether competition for resources amongst neighbouring LEPs will have negative impacts; whether voluntary coordination of planning issues, such as on transport or the environment, will be effective in the absence of set plans. In addition, many of the issues highlighted by the Board, such as skills, are situated in national frameworks. Thus, what influence can a fragmented system of LEPs truly have? In this short presentation we examine these and other issues and consider future research needs.

#### Gateway I

# TRANSNATIONAL HEALTH CARE: TOWARDS A GLOBAL TERMINOLOGY: A ROLE FOR THE REGIONS

## Tomas Mainil, University of Antwerp, BELGIUM Francis Van Loon, University of Antwerp, BELGIUM Keith Dinnie, Breda University of Applied Sciences, NETHERLANDS Vincent Platenkamp, Breda University of Applied Sciences, NETHERLANDS Herman Meulemans, University of Antwerp, BELGIUM

The purpose of this paper is to explore the differences and similarities in the current use of the terms crossborder health care and medical tourism, and to propose a new conceptual language that better captures the phenomenon in question. The former term is built on a demand side logic (the patient and the patient needs), with the latter term built from a supply side perspective (the medical tourism sector and its offering to consumers). We argue that these divisions are at best unhelpful and propose an alternative all-encompassing terminology of transnational health care. The paper develops an argument around these issues of terminology in order to provide research in these areas with stronger conceptual validity. First, the gaps between cross-border health care and medical tourism are observed. Second, new concepts of transnational health care are introduced. These new concepts are linked to the existing typology of Glinos (2010) in which a narrowing down process takes place to two demand-driven and two supply-driven types of transnational health care. For demand-driven trans-border health seekers (TBHSs) and cross-border access searchers (CBASs), there is a need to opt for regional health policy strategies. For supply-driven sending context actors (SCAs) and receiving context actors (RCAs) there would be organizational benefits by means of these strategies. Finally, the nature of these types is explored by considering them in the context of regional development for transnational health care. Regional development is seen from the following two sides: first, a larger role of the regional government to contextually control transnational health care initiatives, excluding large competition between regions or nations; and second, the possibility to manage these regional initiatives by means of sustainable health destination management model, including stakeholder theory and practice. As a case, the border region between the Netherlands and Germany is subject to cross-border patient mobility, resulting in partnerships between Maastricht University Hospital and Aachen University Hospital. These initiatives are generating input from other service industries at several levels. The challenge would be how nation states would deal with access to its transnational health care. Is there only room for private initiatives to handle international patients or can the public health sector be involved? Are there ways to enhance governmental influence on transnational health care in view of the patient? What effect would develop health regions or health clusters have on public health care provision? As a central point of reference in this paper we acknowledge an ethical stance which builds on the premises that hospitals and primary health care services need to be available to the patient in the most accessible way (access as a primer for universal health care); however, the reality is different to the extent that distance plays a role in the provision of health care. If patients or globalized citizens do not have access - in the form of waiting lists or the non-existence of the health service in the parent country - or can simply not afford it, they should have the right to seek it elsewhere. Therefore, this paper connects an alternative global transnational terminology to the central theme of access to health care.

## Gateway K2 RESEARCH-BASED NOVELTY CREATION IN A REGIONAL CONTEXT

### Höyssä Maria, University of Turku, FINLAND

This paper focuses on an underdeveloped area within research on knowledge-based regional development, namely the role of new knowledge creation through research. It argues that the prevailing approaches to knowledge-based regional development involve an incomplete understanding of research-based knowledge and the nature of innovations based on such knowledge. This shows in two ways. First, theorizing on knowledgebased regional economic development either ignores the relevance of research-based knowledge or overemphasizes its theoretical nature. It does not clearly recognize the existence of other types of research-based knowledge, and the different ways in which these can be relevant for techno-economic regional development. A second, connected problem is that the prevailing approaches to knowledge-based regional economic development often assume that innovating in the regional context follows an incremental, almost pre-determined technological trajectory. The sources and degree of novelty, and the ways in which the spatial environment can contribute to the creation or assimilation of novelty have only recently begun receiving attention. The paper explores how scientific research can be understood as endogenous source of novelty in regional development. On the one hand, the paper outlines how different types of research-based knowledge and skill relate to invention and innovation. In particular, it emphasizes methodological skill and instrumental knowledge as crucial for the development of technological novelty. On the other hand, the paper notes that technological novelty can be associated with different degrees of innovativeness. It shows how both the potential but also the challenges related to the development of novelty may increase as the degree of innovativeness increases. Innovations with high degree of novelty deviate from established solutions in, for example, technological, scientific, organizational, or user dimensions. These mismatches with existing socio-technical configurations must become somehow settled before the innovation can become a reality and succeed on the market. The paper concludes by discussing the implications of research-based novelty-creation from the perspective of knowledgebased regional development.

### Gateway B

# **BIODIVERSITY (BD), ECOSYSTEM SERVICES (ES) AND CITY – REGIONS: AN ATTEMPT TO REVIEW AND RETHINK SUSTAINABLE ISSUES FROM COLOMBIA'S EXPERIENCE**

Juana Mariño, The Alexander von Humboldt Institute for Research on Biological Resources - Policy, Legislation and Support for Decision Making Program, COLOMBIA María Mejía, The Alexander von Humboldt Institute for Research on Biological Resources - Policy, Legislation and Support for Decision Making Program, COLOMBIA

It is quite evident and un-doubtable the relevance that cities play in the consolidation process of the development model in terms of social, economic and land organization of the present world. Being its role as inhabitant centres, production, trade and services, cities play a major role in the economic, social and cultural dynamics of countries and its inhabitants. Despite the fact that its own history is bound to humanity itself, its dynamics on time (morphology, function, relations) implies a permanent reflective exercise on the opportunities, risks and challenges that cities play in economic, social and environment contexts, which are uncertain and in permanent changes. Taking into account that during the first part of the Twentieth Century these reflections

were devoted to analyze socio-economic and urban aspects of cities; during the second half of the century deeper analyses were made upon two structural aspects: on the one hand, the functionality of urban phenomenon; on the other, on inhabitants quality of life. These analyses were immersed on the growing global awareness of sustainable development. Furthermore, the simultaneous growth of cities by themselves, the world urbanization process and the rise of environmental awareness has generated -within the last two decades- the rise and development of diverse conceptual and methodological approaches to environmental and urban topics that go from theories and practices of sustainable construction to the understanding of urban ecosystems. Nonwithstanding these advances and its contributions to the understanding of environmental-urban phenomena, from which Colombia has not been unfamiliar (Instituto de Estudios Urbanos Universidad Nacional (2005), Consejo Colombiano de Construcción Sostenible (2008), BIOMANIZALES (1993), Facultad Ciencias del Hábitat de la Universidad de la Salle (2009), Centro de Estudios Urbanos y Ambientales Universidad EAFIT (2011)), the current state of environmental quality of Colombian cities and the levels of deterioration of regional environments in which they locate could possibly be making evident that inefficacy or insufficiency of diverse environmental proposals of institutional environment in the generation of sustainable environments. On the hand, from the city's perspective diverse conceptual approaches refer to biodiversity as part of urban environmental management; from the environmental perspective the impact that cities have on biodiversity and different ecosystem services is acknowledged. Nevertheless there is no systematic research that understands and makes visible the relationship among these two approaches and generates demanded knowledge to incorporate biodiversity and eco-systemic services as structural factors of urban-regional management. As a result of acknowledging the situation mentioned above, the IAvH adopted urban-regional topic as a line of research, wanting in the first instance to account for absence or weakness on the acknowledgement of the cause-affect relations between biodiversity (BD) and eco-systemic services (ES) with urban-regional phenomena. From four case-studies in Colombia the relation cause-effect has begun to rise; this has motivated the discussion about common and new questions on this matter, wishing to influence on environmental planning and land ordeal decisions. In its introduction this article reviews Colombian institutional story from 1993 onwards, in which the Sistema Nacional Ambiental (SINA) was created. This approach will allow readers to acknowledge in general how this country and its policies has understood and managed land ordeal, the relation urban-rural and environmental services in relation to these decisions. Furthermore, by reading different maps main dynamics caused by overlapping, tension or complementarity in sectorial, territorial, environmental and political decisions are identified. Therefore, based on a three-scale approach (i) city-system, (ii) the interdependence between one region and another, (iii) the urban environment by itself, this article analyses how cities are being inserted on the country's ecosystems and therefore how -from the land ordeal logic- BD and SES are constituted as a structural and determinant factor of urban-regional planning. Since this research is on its preliminary stage, the purpose of this article is not to share results of a successful experience or the implementation of a certain sustainable model, but to contribute to the discussion by reviewing and rethinking questions that must be asked from institutional politics, socioeconomics, environmental and territorial perspectives, particularly, based on Colombian experience.

## Gateway G RECENT LAND USE CHANGES IN THE SPANISH MEDITERRANEAN ARCH REGION

### Pablo Martí-Ciriquián, Universidad De Alicante, SPAIN Landry Ivanez, Universidad De Alicante, SPAIN Armando Ortuño, Universidad De Alicante, SPAIN

The Spanish Mediterranean Arch Region has been highlighted as a significant regional entity in the Spanish and European context in both economic and territorial aspects. The region represents half of Spain's economic activity and produces more GDP than 22 countries -out of the 27 European Union Member States-. From the territorial point of view, the Mediterranean Arch is one of the European development major axes; and it has been the subject of attention in the European Territorial Strategy. This area has also had one of the highest increases in artificial surface along the last decades in Europe and the highest in Spain. The objective of this study is to analyse artificial land use changes between 1900 and 2006. The Corine Land Cover European Project databases will be used to identify and measure the new surfaces and identify their features. The methodology uses graphic analysis, quantitative measurements and fieldwork to make subsequent qualitative considerations. By comparing the three series of satellite images and the surface of the different land use classes provided by the EU Corine Land Cover project (continuous urban fabric, discontinuous urban fabric, industrial or commercial units, etc.) in selected areas of the Spanish Mediterranean Arch Region for the years 1990, 2000 and 2006, the aim is to identify and quantify the main areas of growth during these periods. Having defined these areas of

growth and its surface, detailed graphic analysis is carried out on aerial photographs taken on dates closest to the dates and fieldwork in order to characterize new land uses. The objectives, therefore, are to identify and characterise areas of new recent growth in the Spanish Mediterranean Arch and identify common patterns and models in those cities and territories growth. The selected cities and urban regions represent from north to south all administrative regions that belong to the Spanish Mediterranean Arch, from north to south, the provinces of: Girona, Barcelona, Tarragona, Palma de Mallorca, Castellón, Valencia, Alicante and Murcia. This study of land use over the past two decades on cities that constitute the Spanish Mediterranean Arch also analyses the characteristics of new models of urban and territorial land use. The most important artificial land changes are linked not only to new housing surface -especially low density suburban areas- but also to new tertiary areas, infrastructures and other new activities. All these changes of land use have transformed the territory and the relationships between the existing cities and their new urban areas. These new spatial trends represent major changes in land use, which include new spatial and functional relationships. Therefore, identifying new land occupancy models helps to shape the future territorial and municipal planning.

#### Gateway K2

# THE ROLE OF RESILIENCE AND ADAPTABILITY IN SHAPING REGIONAL ECONOMIC DEVELOPMENT PATHS

#### Ron Martin, University of Cambridge, UK Peter Sunley, University of Southampton, UK

There is growing interest in the relevance of the notions of 'resilience' and 'adaptability' in evolutionary economic geography and regional analysis. Yet our understanding of these concepts is still rudimentary. Our aim in this paper is to go some way towards rectifying this gap in our knowledge. We first examine how these concepts are being used in the evolutionary disciplines in which they have been formulated, including the new 'evolutionary developmental synthesis', and then seek to (re)interpret them within a regional economic setting, and to show how they may help to explain the evolutionary dynamics of regional and local development paths. We focus particularly on the role of economic structure, both as a determining factor shaping a regional economy's resilience and adaptability, and as an outcome of the adaptation process. We suggest that the notion of the 'evolvability' of regional economies should be a central focus of research.

### Gateway D1 THE URBAN POOR WITH THE DREAM OF INNER CITY LIFE

### Azadeh Mashayekhi, Delft University of Technology, NETHERLANDS

The policy of high modernization in big cities and especially in Tehran as the capital city of Iran during the second Pahlavi monarchy (1941-1979) made the population of urban poor and urban underclass feel excluded from the redistribution of social goods opportunities (favourable business conditions, locations and labels), and other life chances. Ultimately the fact that the middleclass and the rich were the only social classes that had the right to the capital city and the urban poor were excluded from this right, initiated the marginalization of urban poor and political unrest, which in late 70s it culminated in the ideologically inspired Islamic Revolution of 1979. The revolt of the urban poor against the well-off city's middle class during the Islamic Revolution had hoped to find new ways of solving this conflict, and yet the dichotomy between the urban poor or working class and the city's middle classes still exists. The populist language of the Islamic Revolution, uplifted the scorned image of the urban poor by calling them mustazafin (a Koranic expression)- deprived society - in an attempt to win over this growing but alienated segment of the Iranian population. Soon the Islamic state's response to the problem of the urban poor mainly hinged on the institutionalization of the relationship between the urban unprivileged and the state. Nevertheless the first decade after the 1979 revolution was characterized by rapid population growth, weak economic performance and a fall in living standards for the average Iranian household, as a result of the war between Iran and Iraq. Moreover the urban growth that started in the fifties did increase even stronger from the early eighties on. During this time, an even larger migration to cities took place; some 2.5 million people moved from the war zones to settle in large cities. As a reaction to that massive urban growth, the State Presidium proposed in 1985 the metropolitan plan for Tehran to formalize informal settlements by planning four new towns in the Tehran region and supporting them with new infrastructures. However during the last decades in both spatial and demographic aspects these towns have not helped to reduce the burden of Tehran, but, on the contrary, they have contributed to the creation of many social problems and class conflicts in the society. Today these towns are still far from job creation and self-reliance and they suffer from the lack of a true urban economy and reliance upon government subsidies. Hence the policy and planning of new towns has been unsuccessful to manage urban growth and distribute wealth. This paper analyzes the urban development and planning process of formalization of urban poor settlement and an emergence of the conflict between urban poor and urban middle class before and after the Islamic revolution in Tehran.

#### Gateway G

## TOWARDS A METHODOLOGY TO IDENTIFY AND CHARACTERIZE URBAN SUB-CENTRES: EMPLOYMENT ENTROPY INFORMATION VERSUS DENSITY EMPLOYMENT

### Jaume Masip Tresserra, Polytechnic University of Catalonia, SPAIN

In last decades, the spatial structure of the metropolitan areas has been characterized by an urban dynamics towards a more polynucleated structure, breaking with the paradigm of the monocentric city. The specialized literature has studied these polynucleated urban structures by identifying the nuclei (sub-centres) that are within of the metropolitan areas. According to this objective, there are two approaches to identify sub-centres: by analyzing the employment or population density and by studying the mobility flows. Although, huge efforts have been done in the density approach, there are still some uncertainty points to solve: the density analysis could not identify and characterize simultaneously the sub-centres. That means distinguish those sub-centres that only attract workers (in-commuting flows) or retain their resident workers to those sub-centres that are able to attract flows and retain their resident employed population at the same time. In this paper, a new integrated methodology to identify and characterize simultaneously urban sub-centres is proposed by using an Employment Entropy function. In comparison with the density models, now it is possible to identify sub-centres and characterize them by "emerging" or "large-mature" by analyzing their Employment Entropy Information. In doing so, the Employment Entropy Information of each municipality is divided into two Entropy Information functions: the resident workers -RW- and the in-commuting flows -IF- Entropy Information functions. So, the paper is organized as following: firstly, the efficacy of the proposed methodology is tested in the Barcelona Metropolitan Region from 1991 to 2001 and secondly, the impact of these identified and characterized subcentres on the urban spatial structure is studied by analyzing the evolution of polycentrism level and their influence on the urban hierarchy. The results suggest that in comparison with identifying sub-centres by using the standard density model, the municipalities identified as sub-centres by using "this double" Employment Entropy Information function are more dominant in terms of in-commuting flows, more self-contained, and its influence on the urban structure are more significant, entailing a more polynucleated metropolitan structure.

#### Gateway O

# REGIONAL DEVELOPMENT AS A PROCESS OF MUTUAL ADAPTATION BETWEEN GLOBAL VALUE CHAINS AND REGIONAL INSTITUTIONAL ORDERS

#### Jannika Mattes, University of Oldenburg, GERMANY

The involvement of developing industries in global economic settings is closely connected to the role of these countries in global value chains, i.e. in global networks of production and consumption. Via their participation in such chains, developing countries are integrated in the global economy: their development is not only policy-driven. We know that the investment decisions of multinational companies active in such chains play a crucial role for national and also regional environments in developing countries. However, how the economic and the institutional, the global and regional settings impact each other and possibly adapt to each other remains an open question which is critical for deriving development policy implications. This paper designs a theoretical framework for the analysis of mutual adaptation processes between regional institutional orders in developing countries and global value chains. The underlying question is if, where and how adaptation processes occur between globally oriented companies in the value chains and regional institutional orders. Three scenarios can thereby be imagined: mutual adaptation, selective or one-sided adaptation and non-adaptation. For understanding these processes of (non-)adaptation, we draw upon two largely separate debates: First, the analysis of global value chains which investigates the global orientation of companies, and second the debate on regional institutional orders which focuses on local context conditions in a specific setting. On this basis, the paper designs a framework of institutional learning which describes mutual processes of adaptation in global

value chains and in their regional institutional environments. It takes into account strategic, normative and cognitive aspects. Based on this analysis, it will be possible to identify paths of economic development which go beyond classical, top-down oriented development politics.

### *Gateway O1* MARKET STRATEGIES OF SMALL AND MEDIUM SIZED FIRMS IN A SHRINKING REGION: THE CASE OF UPPER FRANKONIA/GERMANY

## Anke Matuschewski, University of Bayreuth, GERMANY Birgit Leick, University of Bayreuth, GERMANY

Economic Development theories tend to concentrate on growth processes, whereas decline or shrinkage is not mentioned at all or only treated in a rather implicit way - as the opposite of growth. However, according to Myrdal's theory of regional polarisation, a shrinking population would consequently lead to a shrinking regional economy, provided the absence of political intervention. From the, more modern, perspective of an evolutionary economic geography, the development path of shrinking regions would depend on the selection and adaptation of successful firm routines, that are influenced by the institutional setting and regional support. In contrast to Myrdals concept of regional polarisation, the evolutionary approach leaves open, if demographic shrinkage leads to a negative or positive economic development path. In fact, the analysis of the economic development in shrinking regions in Europe provides a variety of different tendencies: from moderate growth over jobless growth to marginal decline. These different paths may partly be ascribed to different firm strategies and routines, but they are also likely to be influenced by the very different political and institutional context of the regions that are spread over all of Europe. Demographic change poses various challenges for firms. Whereas the impacts on labour markets have been analysed and discussed very intensively, the implications on the market strategies have been left somewhat out of sight. Especially firms that provide consumer-oriented products and services on a regional level will have to face major changes within the size and structure of demand. According to Porter (1998), firms that operate in declining markets have two major strategic alternatives: either the conservation of markets or a market retreat. The paper discusses the implications for firms in demographic shrinking regions and introduces a case study among small and mediums sized firms with a regional market orientation in Upper Franconia. It focuses on their market strategies and the influence of the institutional background within a coordinated market economy.

# Gateway F1

# TERRITORIAL COHESION: A CONCEPTUAL ANALYSIS

#### Eduardo Medeiros, CEG - IGOT - Lisbon University, PORTUGAL

This article examines the relevance and the dimensions of the concept of Territorial Cohesion and suggests its definition based on those dimensions. Additionally, it proposes a methodology which can be used to measure the Territorial Cohesion in a given territory and applies it to three case studies: Iberian Peninsula, Scandinavian Peninsula and European Union at the NUTS II level. Furthermore, the article also highlights the importance of the territorial dimension as a key issue in the EU political agenda and, at the same time, gives a contribution to answer some questions for debate expressed in the Green Paper on Territorial Cohesion. The concept of Territorial Cohesion is not new to us. In fact, we started to work around this concept since 2003, by identifying its dimensions and by creating and aggregated index which could measure its evolution in a given territory. Since then, a chain of events led to an increasing discussion around this concept with two highlights: the launch of the Green Paper on Territorial Cohesion (2008) and its inclusion in the Lisbon Treaty, in 2009, as one of the three main pillars of the EU Cohesion Policy. In the meantime, several authors brought new insights to this academic debate, in an attempt to shed some light in its clarification, thus enriching the knowledge base surrounding this crucial and comprehensive concept. Yet, in our point of view, the available studies concerning the Territorial Cohesion concept lack either a clear methodology to measure it on a given territory, or/and fail to identify some key dimensions of this concept, as they neglect some of the main findings of the European Spatial Development Perspective. In this context, this article attempts to provide an updated overview of the concept of Territorial Cohesion and its relevance to the EU objective of a more balanced and harmonious territory, by polishing our previous analysis on this subject, both in the conceptual and the methodological approach. Consequently, this research integrates new valuable insights, mainly from several EU related reports and ESPON studies, since the available academic literature concerning the Territorial Cohesion concept either disperses its analysis on its historical background or only brings to the fore its political implications. Hence, in order to gather a more holistic perspective of the concept of Territorial Cohesion this paper is organized in two main parts. In the first part, it begins by revealing the main findings of the available literature on this concept, namely its relevance and main dimensions. Afterwards, the second part embarks on a more empirical discussion by proposing a methodological approach to measure the Territorial Cohesion and by constructing and applying an aggregated Territorial Cohesion index in the Iberian Peninsula, the Scandinavian Peninsula (trends) and the EU NUTS II (snapshot).

#### Gateway B1 SOCIAL INNOVATION AND RESILIENCE

## Abid Mehmood, Sustainable Places Research Institute, Cardiff University, UK Susan Baker, School of Social Sciences, Cardiff University, UK

This paper aims to explore sustainable development perspectives towards social innovation and territorial resilience. Social innovation for sustainable urban and regional development helps identifying new ways to produce and support social change and foster understanding of the conditions that produce solutions to complex social problems. The complexity view allows linking socially innovative actions to multiple levels of analysis (individuals, actors, organisations, institutions, social systems). Linking this to the resilience and the adaptive cycle paradigm can deepen our understanding of the dynamics that drive both continuity and change, including at the societal level. Resilience thinking argues for the inevitability of change and uncertainty, and stresses the capacity to incorporate change (Holling, 1973). A resilience view to social innovation can support theoretical developments to see the dynamics of the relationship between periods of change and the capacity to adapt and transform for persistence as the core of the resilience of coupled socio-ecological systems (Folke et al, 2010: 18). This shows how the dynamics of coupled systems can generate non-linear processes of change, tipping points and emergent properties that have far-reaching consequences for human-environment interactions (Brondizio, et al. 2009: 266). It is here that a close tie can be discerned between understanding the adaptive process in complex systems and understanding the process of social innovation and how and under what conditions it can successfully arise and diffuse. It also casts new light on the role of social innovation in such adaption. The paper sees social innovation as particularly important in adaptive processes, because systems that are better able to give rise to and diffuse novelty (such as new products, services, ways of doing, ideas, etc) are more resilient and in turn better able to withstand and adapt to external shock. The capacity of society to create a steady flow of social innovations, particularly those which re-engage vulnerable populations is an important contributor to overall social and ecological resilience. The paper concludes with stress on how the rising place connectivity can have both positive and negative implications for the resilience of coupled socio-ecological systems. On the one hand, connectivity can make it possible for disturbing forces, such as disease and financial crisis, to spread throughout the system at a rapid pace. On the other hand, connectivity can accelerate learning processes and policy transfer, helping the spread of best practice from one place specific location upwards to higher levels.

## *Gateway M* **BECOMING-STAKEHOLDER: INVESTIGATING THE ROLE OF TERRITORIAL SUBJECTIVITIES IN REGIONAL PLANNING PROCESSES**

#### Jonathan Metzger, Division of Urban and Regional Studies, SWEDEN

Strategic spatial planning is often envisioned as a policy method which can be utilized to activate local stakeholders within the governance and planning processes relating to a specific territorially framed entity, such as a 'region' or 'place'. In this paper, though, it is argued that the relationship between stakeholderness and territoriality is much deeper and more complex than what is often discussed within the spatial planning literature. Rather than seeing strategic spatial planning processes as merely activating ontologically pre-existing groups of stakeholders, we might actually instead analyze these processes as contributing to the formation of territorial stakeholder subjectivities, which collectively may (or may not) come to constitute a territorial stakeholder community that 'carries' – and in a way embodies – the specific territorial entity. In this perspective, stakeholderness is never an ontologically pre-given property that is to be 'discovered' or

'uncovered' by diligent analysis. Rather, following Marres, we might come to see that stakeholder subjectivization is a process through which actors 'learn to be affected', and where these affections further come to be framed or articulated as territorial attachments and the 'caring for place'. The paper proceeds from an analysis of a specific episode in a Scandinavian regional planning process, which by empirical example introduces some of the key questions that the paper circulates around. The episode particularly highlights how different territorial subjectivities sometimes may come into conflict and how territorial subjectivities may come to take form. Utilizing insights from Actor-Network Theory and the sociology of attachments, the paper then explores the co-constitution of stakeholderness and territorially defined entities such as 'regions' or 'places'. The paper also investigates the roots of the 'stakeholder'-concept in the public administration and policy analysis literature and how the concept has been introduced into the strategic spatial planning literature, and to what effects - and concludes with a reflection on the relevance of these insights to contemporary developments in planning theory and practice. It is argued that the perspective developed in the paper to some degree highlights the active manipulations of territorial attachments that planners initiate within strategic planning processes through using various more-or-less formalized intellectual technologies and techniques. It is further argued that these manipulations in themselves cannot be seen as inherently 'evil', but may also function to engender an inclusive, albeit never unproblematic, 'caring for place'. The paper concludes with a call to pay greater attention in planning research to the specific techniques and technologies utilized for involving actors in planning processes, and to attempt to study the effects of these technologies in all their dimensions.

## Gateway D1 EQUITY IN THE CITY: ON MEASURING URBAN (INE)QUALITY OF LIFE

## Alessandra Michelangeli, DSGE, University of Milan-Bicocca, ITALY Marco Giovanni Brambilla, DEFAP - Catholic University of Milan, ITALY Eugenio Peluso, University of Verona, ITALY

This paper merges contributions from the New Urban Economics and inequality measurement to assess quality of life within a given city. The point of view of a city planner is adopted, one in favour of even accessibility to amenities throughout the city. Instead of the average value computed in the Roback (1982) quality of life index, the new index captures the value of its multidimensional 'certainty equivalent'. This methodology is then applied to derive a quality of life index for the city of Milan.

# Gateway A1

# TOWARDS FUSED REGIONAL ACTION? THE CASE OF VARMLAND AND EUROPE 2020

## Lee Miles, Loughborough University, UK Magnus Lindh, Karlstad University, SWEDEN

Following Lowi's classic devise, 'Policy determines Politics' (1964), this paper argues that the Commission's proposal on a reformed EU Cohesion Policy 2014-2020, together with Europe 2020 and the Horizon 2020 Framework Programme, including flagship initiative's as the Innovation Union represent a new phase in EU governance - built around policy themes of smart, sustainable and inclusive growth - may act as a catalyst for revised forms of regional activities in order to 'get the best out of the EU'. The paper conceptualizes and introduces two forms of 'regional action': 'thin' and 'thick'. In unitary states, as the Nordic, regional involvements in EU-related issues could be described as highly asymmetric and differentiated. As a tool to identify and analyze these differences 'thin'-action refer to a more specific, reactive, project-based and misfitoriented ad hoc action. Whilst 'thick'-action refers to generic, proactive, programmatic actions, following an a priori established political agenda that includes a broader set of different societal actors. The paper argues that 'thin' and 'thick' forms of regional action can be used to further understand regional policymakers' responses (in terms of down-loading, cross-loading and up-loading) to EU agendas of smart, sustainable and inclusive growth. The proposed new tools in the cohesion policy; a Common Strategic Framework, Partnership Contracts and a menu of thematic objectives that are defined in line with the Europe 2020 strategy, will push for new forms of regional governance to develop, in line with the concept of 'thick'-regional action in particular. The paper is split into three parts. The first part introduces the concepts of thin and 'thick' regional action, and seeks to place this in the context of fusion approaches to regional action. The second part explores how EU agendas of Europe 2020 and Horizon 2020 pertaining to smart sustainable and inclusive growth, can be understood through the prism of 'thin' and 'thick' regional action. The third part of the paper, utilizing the functional logic of regional action, explores the tension and challenges faced by regional policymakers in the region of Värmland in Sweden when handling 'thin' and 'thick' forms of regional action. By taking this approach, the paper concludes that understanding notions of thin and thick regional action can provide additional conceptual frameworks to understand how regional policy-makers seek 'to get the best out of the EU', and confront the challenges of EU policy initiatives dealing with smart, sustainable and inclusive growth.

# Gateway F INTERREGIONAL PROJECT NETWORKS IN THE LIGHT OF EUROPEAN INTEGRATION

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Due to the recent enlargement of the European Union, going along the path of uniform European integration has been challenged by a rising heterogeneity on all levels of governance – the European, the national and especially the subnational. Besides a structural heterogeneity, regarding the economic or political situation, a diversity of interests is observable among the member states. In order to continue the deepening of the integration process, a rising relevance of soft, non-binding EU policy instruments as well as the trend towards more flexible and open policy instruments is detectable. Taking the example of the European regional policy, the importance attached to interregional project cooperation illustrates the need for flexibility. Especially within the framework of the structural funds, heterogeneous actor groups differentiated by structural and institutional backgrounds as well as interests; cooperate on themes of mutual interest. Through these voluntary, multi-level projects, pan-European networks of spatially separated units are being constructed. Constantly new social knowledge spaces and arenas evolve throughout the European territory. Scholars of European integration studies have taken this phenomenon into consideration by proclaiming an Europe of variable geometries, nevertheless concepts are solely focused on the national level. Furthermore regional and spatial studies have described these interregional activities in the light of socially-constructed spaces (e.g. soft arenas, knowledge spaces). Nevertheless, no theory fully reflects the subnational movements within the European Union and their role in the European integration process. The program INTERREG IVC, being financed under the European Regional Development Fund, enables and supports interregional cooperation between non-neighbouring European regions. Within the INTERREG IVC project "Know-Man" - the case study of my dissertation project – an intense net of interactions is spanning between the fifteen partners in six European regions. Showcasing the interregional knowledge flows, so-called Expert Tandems have been established between a minimum of two partners. Those tandems work together on the transfer of an identified Good Practice – an instrument that has proven successful in one region. On a voluntary basis, actors in different regions are exchanging and deepening knowledge on a tool or policy as well as working on its actual transfer. Through formalized steps such as a written handbook for the chosen practice and an implementation roadmap for the transfer, expert knowledge is being written down. Nevertheless, meetings on location are necessary to learn about the regional context in order to adapt and adjust the practice accordingly. The example of the expert tandems is part of the research and analysis I am doing for my dissertation project in which I am theoretically applying existing concepts of spatially differentiated integration within European studies, such as differentiated integration, to the level of interregional projects. Furthermore, I am complementing my theoretical frame with concepts on the social construction of space. Empirically, I am conducting a qualitative network analysis of the project Know-Man in order to analyze the (spatial) interaction patterns within the project consortium.

#### Gateway D1

# PUBLIC SPACE USE AND DIVERSITY MANAGEMENT WITHIN MULTICULTURAL SOCIETIES IN TRANSITION

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Access to publicly shared space and achievement of cultural diversity in shared public spaces pose a great challenge for multicultural post-socialist societies with experience of violent inter-ethnic conflict. The transitional process taking place during the last decade of XX century and the beginning of the millennium in the countries of the Central and South-Eastern Europe was characterised among all with severe social changes

and value break (ideologically and politically) within the individual and the collective matrices of identity. The value-vacuum inflicted social misbalance and distortion of democratic institutions into a new practice of collectivist identification subjected to populist manipulations and nationalist communitarism (Frckoski, 2000: 1). In such context, the dominance in the public realm was utilized by the groups in power, in the context of SEE the ethnic majority group(s) and its management and symbols represented the vision and standards of that group(s), setting in such way a framework for understanding reality. Cultural forms and expressions not fitting into the agenda as those of the minority interest groups and ethno-cultural minorities were excluded from representation within and identification with 'the public sphere'. Hence, the 'public space' had become increasingly 'unshared', the legitimacy of the institutions and the public policy that supports them threatened which on one hand (Bennett, 2002: 5), create constraints toward democratic exploitation of multicultural society, while on the other, provides an opportunity to carry out open debate on management of diversity. This becomes evident on a city level. The cities are described as "the best place where mechanisms and practices leading toward multicultural society in the context of liberal democracy can be developed" (Tatjer, 2004: 248). Tatjer (2004) assigns such an important role to the cities in the prospect of their capacity to accommodate cultural difference and facilitate coexistence among different ethno-cultural groups. Both pose a driving force for cities' social and economical development. Moreover, in her views, cities can create opportunities and mechanisms for ethno-cultural minority groups to address difficulties that the state has not foreseen and allow existence of sense of belonging that does not clash with different cultural identities (ibid. p.249). However, she argues and reminds us not to idealise the capacity of cities or to propose a panacea for the conflicts that the presence of ethnical diversity can create in the society (ibid). The unparalleled level of cultural diversity encountered in cities in Macedonia presents a challenge to local urban governance. Faced with the rapidly changing ethnic composition of the cities, citizens and local governments are actively searching for "new ways of living together, new forms of spatial and social belonging" (Sandercock, 2004: 7), expanding the spaces of democracy through different forms of political and civil participation at the local level. How can cities accommodate cultural difference? What kind of practices of the public domain and shared public space should be developed so that different ethno-cultural groups are taking part in defining and redefining city's boundaries, use and management? The paper looks at these questions from the view point of the city of Skopje, the capital of Macedonia and its recent urban practices which profoundly change fragments of its history, image and identity. The city of Skopje is undergoing a massive architectural reconstruction titled "Project: Skopje 2014", setting as the final target new makeover of the country's capital until 2014. The Governmental decision supported by the City Council to rebuild several buildings, hallmarks of pre-earthquake Skopje, in their original form and location in the central area, together with the decision to rename streets, highways and buildings with names of ancient Macedonian figures while placing more than 30 sculptures at once into a 1.5 km long walking zone was presented as a project for reconstructing the authentic identity of Skopje. Within the current cultural landscape the aggressive monumentalisation of the public space has been used as an expression of a "fixed, hermetically closed local culture, centralized in the glorified history of one ethnos" (Nonevski, 2011: 37). The current debate of the role of culture, art and architecture in the "Project: Skopje 2014" can only be simplified in what Chin (1992: 1) describes as "...politics, power and the ways in which culture is embedded into the social matrix...representation, people's feeling of infringement (or oppression) and exclusion". The reason why the project's critics are so painful is that they strike at the very heart of who people think they are, of how diversity is constructed and reaffirmed within the national and local cultural context. The conceptual framework of the paper shares interdisciplinary approach integrating current literature on intercultural city and cultural policy findings to understanding on practices, mechanisms and processes taking place in the (shared) public space in the city of Skopje. As an outcome, the paper will contest whether the envisaged hallmarks for the city of Skopje have the capacity to facilitate urban social identification and be converted into symbols of group identity.

#### Gateway G2

# THE OPEN SPACE SYSTEM AS THE BACKING OF THE METROPOLIS. AN APPLICATION TO LISBON

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Faculty of Architecture-Technical University of Lisbon/CIAUD The present paper addresses the morphological genesis of the city space from the perspective of unoccupied space. It aims to contribute to the debate with an interpretation of the urban formation of Lisbon, focusing on space that is not occupied, intentionally or not. The distinct circumstances associated with the physiographic nature, the evolution of administrative boundaries and planning and urban design options, especially regarding master plans, have contributed to the characterization of several periods under analysis and have highlighted the predominant features that help us understand the

morphogenesis of Lisbon. Lisbon plays a key role in functional terms within a broader metropolitan context, since the metropolitan axes of opportunity converge in its belt. The article pinpoints links between morphological evolution and the main urban models used in the planning process, giving evidence to the role of open space in the process of land transformation. Resorting to the original cartography that has been produced and interpreted - and which is one of the key findings - stages of development of the city of Lisbon have been identified, three processes of land transformation were considered, according to the research timeline: i) Parcelling/plot division as a basis for the territory's transformation; ii) The modern paradigm and the open space segregation: spatial disjunction and functional specialization; iii) Open space as a pivotal driver to designing the city Three research questions became the focus of the investigation:

Can the Open Space system be used as a fundamental urban concept for designing contemporary cities? What are the theoretical and the empiric grounds for hypothesising the previous question? How can we address the topic by giving evidence to concrete shaping processes in the metropolis?

The main topic was to understand how the city of Lisbon, within a wider metropolitan scale, has morphologically evolved by stressing the look into the open spaces in-between rather than focusing on the buildings or infrastructures in order to explain not as acknowledged fabrics. Findings from the 3 year post-doctoral Research Project Designing Absence; Open space as a morphological and urban design basis in Lisbon metropolis, funded by FCT, Faculty of Architecture at the Technical University of Lisbon and the Department of Urbanism and Spatial planning at ETSAB-UPC Barcelona, will be explored.

#### *Gateway E*

## **RECONFIGURING REGIONAL STRENGTHS: DEVELOPING ALTERNATIVE DAIRY PRODUCTION AND PROCESSING INDUSTRIES IN SOUTH WEST WALES**

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South west Wales has a long standing history as a milk producing region, and has also hosted a locally significant dairy processing industry, providing relatively important employment opportunities in a rural area. Changes to the structure of the industry, reaching back to the abolition of the UK's Milk Marketing Board in 1994, the operation of the EU's Common Agricultural Policy milk quota schemes, and to change in the balance of market power between dairy processors and retailers, contributed to a process of rationalisation and centralisation of milk processing in the UK. In the south west of Wales this process has led to the closure of a number of local processing sites formerly operated by large corporate milk processors. Restructuring within mainstream dairy processing industry has had a number of effects, and impacted on the farming sector as much as the processing sector. Within the dairy processing sector, the output of surviving plants has been redirected to account for changes in market demand, and plants have invested in new processes to respond to regulatory requirements. Within the farming sector restructuring in the dairy industry has produced considerable pressure on the profitability of dairy farms, and the last decade has seen a trend of farmers exiting milk production. Farms have in consequence either been converted to other forms of agriculture (including diversification into other land uses), to other agricultural products, or have been amalgamated to produce larger dairy units in an effort to achieve economies of scale. The process of farm enlargement has recently begun a step change with the proposals for, if not yet the widespread adoption of, 'mega dairies' designed to optimise resource management and outputs as well as business management and profits. While 'mega-dairies' are already found in other parts of the globe, they are an innovation in south Wales as they are for much of the rest of the UK. The development of 'mega-dairies' offers the scope to invest in technologies that may offer better and increased utilisation of waste by-products from the industry, and in this respect is in sympathy with developments within dairy processing in which plants have improved their environmental and energy performances. It is also in sympathy with developments in dairy processors that have also seen increased linkages with other manufacturers to supply the by-products of milk and cheese processing as feedstock to other processes. Milk production may thus be considered as a material feed-stock to supply an increasing range of potential markets including, at the extreme, ethanol production and a developing 'nutraceutical' sector, and has in this sense become identified more intensively with industrial processes. These developments have been characterised as the conversion of agriculture into a bio-economy paradigm extending the industrial agriculture approaches of the late twentieth century to maximise resource use and to extract greater value from land use. In contrast to processes of rationalization, restructuring, enlargement, and bio-economic industrialization, and in the shadow of the surviving corporate players, small-scale and micro-scale dairy processing activity has carved out a viable economic space in south west Wales. This sub-sector has drawn on a provenance-led and traditional conception of dairy production and processing, providing local market and processing outlets to traditionally sized family farms. The sub-sector, although providing and alternative to the mainstream, is not homogenous, and contains entrepreneurial actors who exhibit a range of business attitudes, motivations and ambition. While the alternative sector has focused mainly on the natural qualities of traditional dairy products such as liquid milk, cheese and yogurts, often based on organic agricultural principles, actors in this sector have also explored alternative products lines that mirror to some extent some of the developments in the mainstream sector. This alternative stream has been described as an eco-economy of development that magnifies local linkages and emphasizes local synergies. The agricultural sector, in parallel with the dairy processing sector, has been significant elements in the economy of south west Wales. It has attracted consistent support from policy makers at all levels of policy making. Recent policy support, centred on the goals of maintaining and developing the social and economic fabric, has developed a local food and agricultural brand for the region that has been advantageous to the alternative artisan-led developments in the industry. This approach may be described as being sympathetic to the eco-economy, while not closing off development opportunities in the mainstream (proto) bio-economy. As new developments, such as mega-dairies, are proposed, however, the relationship between the bio and eco-economy may need to be reassessed.

## *Gateway M* EUROPEAN SPATIAL STRATEGY, CITY REGIONS AND ISSUES OF REDISTRIBUTION AND TERRITORIAL COHESION – EMERGING EXPERIENCE FROM ENGLAND

#### Janice Morphet, UCL, UK Simon Pemberton, Birmingham University, UK

In a European context the development of functional economic areas and their relationship to governance structures has been attracting considerable attention. Of note are new forms of sub-regional and city-level governance that are emerging in relation to the implementation of the Lisbon Treaty. This is promoting territorial cohesion - alongside economic and social cohesion - in order to create a triple lens through which EU policy is evaluated. This paper considers such issues with reference to recent developments in England. It explores (i) the role of economic spaces in the provenance of rescaling tendencies; (ii) their ability to act as a suitable 'strategic' governance mechanism for public investment and service delivery that is conducive to securing redistribution and territorial cohesion, and in ways that minimize 'spatial spillovers'; and (iii) the accountability of new forms of sub-state governance focused around city regions and inter-relations with territorial coherence and notions of subsidiarity.

#### Gateway K2

# SPIN-OFF DYNAMICS AND THE EMERGENCE OF INDUSTRIAL DISTRICTS: THE CASE OF ITALIAN MOTOR VALLEY

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The origin and growth of industry clusters have attracted the attention of scholars and policy makers since the early era of industrialisation, whose evolution in time has in fact been largely characterised by trends towards geographical concentration and territorial imbalances. The seminal work by Alfred Marshall has represented the foundation for a rich strand of literature, whose late expansion and refinement were inspired by the experiences of localised development in emerging regions, the growth of technology clusters, or the "diffused" industrialisation taking place in once peripheral areas. This is the case of Italian industrial districts, which, since the second half of the 1970s, have emerged as a territorial model of industrial agglomeration, decentralised production and flexible specialisation. The emergence and growth of Italian districts have been often related to marshallian externalities, especially favoured by conducive local institutions, cultural commonalities, shared values and trustful cooperative relationships among local players. Recently, the traditional explananda of the emergence and success of clusters have been reconsidered. Other conceptualisations and arguments about clustering dynamics, alternative or complementary to the traditional Marshallian narrative, have emerged. In particular, Marshall's conjectures about clustering forces have been tested in the light of the historical evolution of prominent industry clusters, mainly in the US. The evidence about the growth of clusters in areas that did not

have obvious natural advantages, nor the first comers' benefits of early agglomeration economies, has inspired a different conceptualisation, which draws consistently from the evolutionary perspective on industrial dynamics. The seminal works by Klepper (2001, 2009, 2010) and Klepper and Sleeper (2005) elaborate the evolutionary concept of "heredity" to explain the role that spin-offs have in the growth and performance of clusters. Spin-offs are entrants founded by employees of firms in the same industry, which inherit knowledge and competencies from their parent firms. This parental heritage distinguishes them from other players and importantly affects their performance and likelihood to generate themselves other spin-offs. Klepper and colleagues show that, in prominent US clusters, more successful firms have higher spin-off rates and their spin-offs tend to outperform competitors. Organizational reproduction and heredity are thus identified as the primary forces underlying clustering. The present paper intends to provide new insights into the debate on the evolution of industrial clusters and its main driving forces. We investigate the emergence and evolution of an Italian industrial district, the so called Motor Valley, spannig the provinces of Modena, Reggio Emilia and Bologna, all located in the Emilia Romagna region, which host the most famous motorcycle companies, but also automobile firms, worldwide (e.g. Ducati, Maserati), and a paradigmatic example of Italian marshallian district (see Brusco, 1982). Our empirical analysis draws on an original dataset of the founders of motorcycle companies located in this area, which allows us to reconstruct the evolution of the district overtime. In line with Klepper's works, we investigate the spin-off dynamics and its contribution to the process of agglomeration. We analyse the type of firms that spawned off, as well as the background of founders and the performance of the firms (e.g. survival). By comparing this district evidence with the main findings of the literature, we intend to assess the degree at which the typical district features impact on the entrepreneurial dynamics, that is, whether, in the Italian case, once entry by spin-off is taken into account, a"Marshallian district" exception can still be identified. Overall our findings confirm that organizational reproduction and heredity represent primary mechanisms underlying the survival of firms. The 'inheritance' arguments find support in the data: spin-offs exhibit a higher quality than non spin-offs and more in general experienced companies perform better than inexperienced ones. However, our results also show that district effects are significant in explaining the survival of firms, which apparently contradicts some of evidence presented by Klepper and colleagues. In this respect, it appears that, in dense industrial environments, competitive advantages can also be acquired or built through other channels.

#### Gateway I

# EMERGING EUROPEAN MACRO-REGIONS: WHERE PATTERNS OF SUBNATIONAL COLLABORATION INDICATE AN ADDITIONAL STRUCTURE TO EUROPE'S GEOGRAPHY

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Regions and collaboration across regions in different countries are becoming increasingly important. While the EU fosters processes of regional collaboration to support the process of European integration, on the other hand regional governments identify opportunities to stimulate regional development based on synergy from collaboration. Collaboration, in general; is regarded to provide an instrument for generation of knowledge exchange, organizational learning, merging of resources and the identification of shared interests and problems. Collaboration among regions is regarded as an opportunity to realize goals. During such activities successful and efficient relationships with partners will be continued. A search for appropriate new partners can also provide for additional collaborations. Thus it needs to be asked, how such collaborations between regions emerge, how regions identify suitable partners and when processes of collaboration gain particular importance. By analyzing collaboration and trade patterns between European regions this paper argues,

- (I) Geographical as well as cultural proximity takes influence on the collaboration and how to indentify appropriate partners; it may even shape the efficiency and success of collaboration itself. Thus, it is interesting, that cultural or geographic proximity often means to cross regional or national administrative borders.
- (II) Europe changed a lot, since the relevance of borders among the EU-member countries did diminish (during recent decades), and, in addition, trans-border interaction (since 1990) was make possible. Within this situation, availability of EU funding took a strong impact and did help to emerge and further develop new European macro-regions.
- (III) Time is a key factor to understand how the interplay of cultural and geographical proximity facilitated the emergence of European macro-regions, and, in addition, how widely they did develop. This is most obvious for the prominent cases of the Baltic Sea Region and the Mediterranean Arc. 20 years of EU-membership helped to realise a high level of economic and

social interconnectedness between regions from different countries. In contrast, the situation of the Adriatic Sea Region indicates how economic, social and political integration is hampered by the persistence of border.

(IV) Nevertheless, macro-regions are not homogenous; individual regions use macro-regional settings in different ways. This is indicated by variations in frequency and intensity of collaboration, and refers it to specific roles of different regions for the macro-region. These differences are caused by specific socioeconomic and political characteristics of individual regions.

*Gateway* C

# GENDER RELATED OUT-MIGRATION TENDENCIES IN NORTHERN HUNGARY AND VÄSTERNORRLAND, SWEDEN

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This paper aims to analyse the out-migration of young women from the rural regions Northern Hungary and Västernorrland, Sweden. Northern Hungary is the fourth largest region with one of the highest population density in the country. However the population potential of the region would be satisfied in this regard, the economical potential is not proved to be adequate. Mainly due to the economical problems of the territory, the attractiveness of the region is getting worse that results growing out-migration tendency. Compared to the 1990 base year the North Hungarian population was decreased with 9% which is the largest population decline in the country. The Västernorrland County reached a peak in population in the middle of 1950s, with a little more than 280000 inhabitants. Since that the number has decreased with more than 10 percent. Particularly during the last 20 years, population decrease has been very rapid and placed Västernorrland as one of the most rapidly depopulating counties in Sweden. The theoretical frameworks are based upon the neoclassical macro theory of migration and the dual labour market theory in combination with the human capital theory. A qualitative method will be used in the analysis in this study. A questionnaire was carried out in Northern Hungary to consider gender related differences in migration behaviour already in the very young age groups. In-depth interviews with young women to learn more about the social reality in the region under consideration were made as well as the experiences and shared knowledge of the people living in the regions that are related to migration decisions. The empirical material consists of a literature review, a survey to 5,512 teenagers aged 14-17, expert interviews and interviews with young women leaving Västernorrland, returning to Västernorrland or moving in without any prior connection to the region. The initial findings suggest that the driving forces of out-migration of young women appear connected to studies and moving to more attractive labour markets. For those who do not return the lack of employment possibilities in their profession appears to be the main reason for not returning. This paper is a spin-off product from the ESPON-project SEMIGRA - Selective Migration and Unbalanced Sex Ratio in Rural Regions.

#### Gateway N

# ENDOGENOUS INFRASTRUCTURE SPILLOVER ON BUILDING INVESTMENT: ARE THERE ANY IMPLICATIONS FOR REGIONAL GROWTH?

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This paper uses long-term regional construction data to study the impact of infrastructure investment on building investment, using time series modelling. The empirical framework is designed to address the endogenous feedback effects. Both physical (roads and harbours) and social infrastructure (education and health) impacts are considered across nine regions in England. Significant effects for physical infrastructure are found across most regions and, also, some evidence of a social infrastructure effect. The results are not consistent across regions, which may be due to geographical differences and to network and diversionary effects. The regional differences are further explored to examine spillover effects. Spillover effect is not significant when rest of the country is

taken into account. However, considerable spillover effects emerge when we focus on neighbouring regions. The relative size of the spillover ranges from 40% to 60% of the total effect. Also, results show interesting distinctions between residential and commercial real estate investment and reveal the importance of motorway connections in shaping the direction of such effects. Overall, the results do suggest that infrastructure does have some impact but follows differential lag structures. This is an important question given the ongoing public policy focus on investment in infrastructure as a tool to boost the real sector of the economy.

#### Gateway G

## A GLOBAL NETWORK OF R&D LOCATIONS AND R&D COMPLEXITY. A NETWORK ANALYSIS AT THE CITY LEVEL

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Taking into account the existing gap in treating the globally dispersed R&D activity as a system of inter-lined activities and accounting for the heterogeneity of locations, the present work constructs the methodology to study the interplay between network position and R&D complexity of locations. This is done in three steps. First, we apply network analysis to study the globally dispersed R&D centres at the city level as a network. The application of network analysis to study R&D locations is motivated by the fact that the increasing internationalisation of R&D activities, the notion of the knowledge stickiness and the resulting emergence of connections between various places around the world let us believe that firms' R&D location choices together with the characteristics of locations create externalities and that they mutually affect each other (Dunning, 2009; Enright, 2009). Second, we profile cities present in the network according to the complexity of R&D activities performed in research centres located within them. Finally, we combine the two network and R&D complexity dimensions of cities and, using CART, a non-parametric classification technique, assess the relationship between the R&D complexity and cities' position in the network of R&D locations. The analysis is based on a unique dataset that contains information on the location and ownership of over 3000 R&D centres belonging to 175 multinational high-tech enterprises (MNEs) which, in 2011, were located in over 54 countries and over 1300 cities around the world. The results of our research can be summarized as follows: First, we show that the network of R&D locations is not regular and far from being complete. Second, the number of R&D connections is positively related to the intensity of these interactions. This shows some dissimilarity to the characteristics of the international trade, where there is a trade-off between the number of links and the volume of flows. Third, regarding the position of individual cities in the network, there are clearly some structural differences in the characteristics between the locations. By casting new light on the structure and characteristics of the whole system of R&D locations of MNEs involved in highly knowledge intensive activities, we deliver a valuable contribution by extending the analysis of knowledge networks by using different type of information and focusing on the input side of the innovation process. While looking at the global system of R&D locations as a whole, rather than at individual relationships and interactions between individual countries, at the same time, we track the role of individual R&D centres and of the cities where they are located. Our analysis of R&D complexity addresses the commonly neglected location factors and the diversity of location environments and respond to the necessity of accounting for them while analysing MNEs location choices (Arregle, Beamish, & Hebert, 2008; J.A. Cantwell, 2009), which are motivated by the continuous geographic disaggregation of the value chain. This way we our results contribute to further understanding of the interdependencies between MNEs' behaviour, location dimension and the outcomes of their dynamics. Our results have a few implications for decision making concerning the location of R&D activities and policy making at city, regional and national level. Regarding the location decisions of MNEs, the results show clearly that any location decision generates positive and negative externalities. Concerning the policy making, one of the most important messages is the fact that the results allow to a certain extent to pre-determine the consequences of specialisation in one direction or the other. In light of our study, a city or a region benefits clearly from maintaining a number of connections with other locations, which produce externalities in the form of, for example, spillovers between sub-groups of the global R&D network. This shows how important it is to design any regional development strategy and policy that deals with a region's innovation capacities and competitiveness.

## Robert Newbery, Plymouth University, UK Karen Scott, Newcastle University, UK

The entrepreneurial discourse links ideals of economic growth and cultural change in which entrepreneurial activity is a process that transforms resource inputs to produce regional competitiveness. However, a competitiveness orientation has been questioned and where it was initially used as a proxy for policy goals, via a process of substitution it has become the policy goal. From a cultural perspective, seldom is the individual economically better off as an entrepreneur, with the median self-employed income significantly lower than equivalent employment. This introduces a dilemma for enterprise educators tasked with encouraging and supporting an entrepreneurial culture. The welfare ideology is insufficient at an individual level. A parallel discourse, with a high level of policy traction is the importance of wellbeing as a goal of policy. Various descriptive studies attempt to link aspects of entrepreneurialism and wellbeing, reflecting that self-employment is significantly associated with higher levels of wellbeing. Entrepreneurial activity is regarded as a tool that can be used almost indiscriminately to affect change, despite research characterising it as an amoral process that may be productive, unproductive or destructive in its social outcome (Baumol 1990). We argue that the current literature linking entrepreneurialism and wellbeing is under-theorised from an ideological point of view, describing current reality at the expense of future possibility. Recent reflections in the field have attempted to reposition entrepreneurship as a science of the artificial (Simon et al. 2012), where rather than limit the field to describing a phenomenon, practitioners actively 'design' purpose (Wright et al. 2012), essentially re-creating the entrepreneurial process to develop specific outcomes. Finding current competitiveness and welfare ideologies as insufficient and regarding entrepreneurship as a social science where process may be designed to enable outcome, this paper asks what an entrepreneurial process of regional wellbeing should look like.

### Gateway M1

# GOVERNANCE RESPONSES TO PERIPHERAL INDUSTRY CLOSURES – EXPERIENCES FROM NORWAY AND FINLAND

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Finland and Norway have several small and geographically isolated industrial towns which depend upon one or a few industries, often based on natural resource extraction. These are often titled one-sided industrial towns or one-generation towns. The purpose of this paper is to investigate the measures and strategies these peripheral communities are using to survive when the main industry is declining. In Norway, a system for long-term economic restructuring of these one-sided industrial towns has been developing during the last three decades. As in many other countries, the 1970's implied a break in a steady economical growth following World War II in Norway. In the 1970s, the target was to meet the challenges of the crisis by supporting weak companies in the hope of an improvement in the economic situation. In the early 1980's, the development of restructuring efforts were steered away from this kind of strategy. The notion of the crisis as a result of economic fluctuations was rejected. Instead, it was argued that the crisis was caused by the fact that the one-sided industrial towns relied on only one industry branch or one company. The conclusion was that small and peripheral towns in Norway were not competitive for outside investment. The strategy was to raise the concern for the survival of the town rather than supporting the main company. In short, the Norwegian strategy focuses the restructuring measures on converting the activity of the main company or industry branch, to diversify the economic life of the town. This would be accomplished over a long period of time through a broad planning effort gathering regional actors from both the private and the public sectors. Thereby, the grounds for allocation of restructuring resources changed from being directly connected to crisis situations in the 1980's, to a situation in the 1990's where the grounds for resource allocation often are connected to situations that can occur in the future. This kind of shift, from crisis-based interactions to precaution-based efforts, is not easy to accomplish. Concerning precautionbased efforts, there are high demands on consensus among regional actors. There are also high demands on a broad participation and the accountability can be put into question. The possibilities for precaution-based interventions are therefore determined by the potential for reflections by regional agents on possible crisis opportunities in the future. In practice, this process is a governance process characterized by ideals of consensus, transparency, participation, equity, inclusiveness and accountability. This paper will depict the development of restructuring policy in Norway, and present the ideal characteristics of this policy. The Norwegian model will be regarded as a best practice, whereas the case of the town of Kaskö in Southern Ostrobothnia in Finland will act

as a comparison to this model. The expectation is to be able to illuminate the implications of differences in the regional structure for governance responses and the benefits of such approaches for regional restructuring.

## *Gateway UF1* **URBAN FRINGES IN HAMBURG CITY REGION: NEW GOVERNANCE MODES TO FACE FUTURE CHALLENGES**

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This paper outlines current socio-economic and spatial developments in the urban fringes of Hamburg city region, explains why the present institutional setting of regional planning might not cope with future challenges and presents recent suggestions how to adapt governance modes. The urban fringe area in the city region of Hamburg is facing multiple challenges. On the one hand Hamburg and its surrounding region are growing in population; therefore the need for more housing is increasing. Whereas new residents are predominantly seeking for neighbourhoods with good infrastructure and quasi-urban qualities, older peripheral residential areas are suffering from a decline in population. At the same time the demand for new sites for land consuming industries like logistics and for new transport infrastructure is increasing. On the other hand the importance of open spaces in the fringe area is growing regarding the consequences of climate change, recreation and nature conservation. Although these conflicting developments apparently demand new ways of coordination in regional planning, this topic has just recently been set on the agenda of regional actors. The urban fringe area in Hamburg city region is politically divided by three federal states, numerous counties, districts and municipalities. Moreover it is covered by multiple projects and program areas. Institutionalized cooperation has been focusing during the past years on the large scaled Metropolitan Region Hamburg which also includes distant rural areas. Its topics and forms of cooperation have always been rather soft dealing with tourism, marketing or internationalization. Although in recent years spatial development has become more important again, the Metropolitan Region's steering capacity has remained weak using mainly informal instruments of information and cooperation Some stakeholders have lately been demanding to acknowledge the closer fringe area as a core area within the Metropolitan Region and to tackle its challenges more specifically. Especially the City of Hamburg is supporting initiatives to develop new forms of discussion and coordination of spatial development in the urban fringe. One instrument is the so-called 'Inter-Municipal Neighborhood Forum', referring to earlier experiments in the Berlin-Brandenburg region. The paper will particularly examine this new form of regional governance, explore its chances and constraints and how it could be embedded in the existing institutional setting of the Hamburg City Region respectively the Metropolitan Region of Hamburg.

#### Gateway F

# ASSESSING THE INFLUENCE OF SPACE AND PLACE ON THE PLANNING AND IMPLEMENTATION OF THE EUROPEAN STRUCTURAL FUNDS

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The EU, the OECD and researchers in the fields of geography, economics and urban planning have used terms such as 'spatial development', 'territorial development', 'new paradigm of regional policy' and 'place-based development' in reference to policies that aim to enhance living standards and build and sustain economic growth in specific places, regions and territories. These interpretations of space as a facet of development are common to the traditions of spatial planning, through attention being paid to qualities of place as well as to flows of people and goods, and regional development, through an emphasis on the region as a resource of intangible capital that brings positive externalities. Within the EU policy narrative spatial planning and regional policy have run in parallel, the influence of the former coming to bear on the latter, as the cohesion policy has, through territorial cohesion, further absorbed aspects of space and place. While territorial cohesion is a recent objective for cohesion policy, the absorption of spatial concepts into the use of the Structural Funds is held to be a gradual one. The research outlined here uses a case study methodology to assess the extent to which spatial concepts have been used in the planning and implementation of the European Structural Funds, by an analysis of the programming and evaluation documents of a given region, for the periods 2000-06 and 2007-13, in addition to any parallel national, regional or local spatial planning and economic development documents that may exist, together with interviews with national and regional stakeholders involved in the policy process. Documents are

analysed along three facets of spatial policy. Firstly, territorial concentration is considered. For reasons of equity, a perceived need for even development in order to negate the negative externalities resulting from growth, or as a way of increasing overall efficiency by improving the contribution of the 'long tail', states target resources at places with low per capita income and high unemployment. The level of scale used varies from the neighbourhood, where localised deprivation is addressed, to the sub-national region (e.g. the Spanish autonomous regions or the UK standard regions), if the aim is to regenerate regional economies. Secondly, we examine policy integration. Criticism of the approach to sector policy that does not take space into account largely concerns the resulting inability to plan for the differential effects of such policy over space. It is posited that, where policy concerning a variety of sectors can be made in accordance with a strategic spatial plan, two benefits result: the effects of sector policies on particular places, due to the existing conditions in those places, will be taken into account and necessary adjustments made and; various sectoral interventions can be made in concert so as to maximise the externalities between them. Finally, governance arrangements are analysed. The traditional approach to regional policy involves the direction of funds from central government to regions, with little input or coordination from regional levels of government or other bodies. An approach common to spatial planning and more recent attempts at regional policy, by contrast, involves the use of multi-level governance that engages central, regional and local levels of government as well as partnerships with local institutions. The research presented is at the early stage of document analysis. Following the completion of this, it is intended to commence the interview stage.

## Gateway M GOVERNANCE AND THE MAKING OF THE NEW TERRITORIES IN ROMANIA

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Trying to understand the rationale that guided the making of Romania's regional level, we are wondering how the actual spatial planning policies have influenced the regional planning practice. On a second thought, couldn't we just suppose that they didn't, and that our regional policy was "tailored" during the very making of the regional level, in order to ensure a smooth integration within the EU structures? Well, it seems that the famous causality dilemma which came first - the chicken or the egg? Has found its equivalence in urban and regional studies. However, did we or did not had a regional policy prior to the making of the so called "development regions"? is maybe not the most important question. Maybe the most important thing to stress out is how did we make them? meaning which actors were there involved and which was the degree of their involvement? In this respect, the present paper tries to highlight the basic features of the "new territories" making process with an accent on territorial governance. Recent planning studies define territorial governance as the spatial organization process of interactions between different actors with different interests. This statement assumes that every concerned actor is granted with a certain spatial action freedom, as long as it's leading to a more balanced spatial development. Beside the governmental actors, the concept of governance implies the involvement of both public and nongovernmental local and regional bodies. The shift from governing to governance represents a sign of political and administrative maturity. In terms of governance, the study will focus on Romania's regional planning process, at all levels. Thus, it will try to make obvious the gap between policies and practice through three questions: •

Is it governing or governance that drives our regions? •

Is the mapping of our regions the best one? •

Could emergent territories become a proactive regional level, better that the actual one?

In order to answer these questions, the paper will conduct an analysis of the Romanian regional policy making, followed by the analysis of the implementation measures, in order to identify the existing gaps between policy and practice. Admitting that a sound, viable regional zoning cannot be imposed, but negotiated with the interested communities, the study subscribes to those who are proposing the emerging territories as an alternative to the top-bottom actual model. A basic feature of these territories is the willingly association of local communities, in a bottom-up approach. Based on previous regional studies, the emergent regions are represented by ãri (lands) and inuturi (holdings) which are Romania's distinctive geographic regions. Unlike the new structures which just cannot establish a functional regional level due to the lack of the civic action, the emergent territories have the double advantage of both a territorial and a mental regional cohesion. The results of the study will show that Romania's actual regional structures were artificially created in order to implement EU's

regional policy. The fact that they are far to be efficient is reflected by the low found absorption rate. Hence, our study pleads for the emergent territories as smarter regional structures.

#### *Gateway M* SOFT SPACES AS VEHICLES FOR NEOLIBERAL TRANSFORMATIONS OF STRATEGIC SPATIAL PLANNING?

#### Kristian Olesen, Aalborg University, DENMARK

In the planning literature, there has recently been much discussion on the new 'soft spaces with fuzzy boundaries' perceived to emerge in British spatial planning. So far critical reflections on the implications of the increasing amount of spatial strategy-making being done in soft spaces have focused on the lack of transparency and potential democratic deficits of contemporary spatial planning. Limited critical attention has been paid to how policy agendas are being shaped and reshaped in soft spaces, and how these agendas seek to influence formal planning arenas. These questions seem to be particularly relevant within the current neoliberal political climate characterising many European countries, including social welfare states such as Denmark. In addition, limited attention has been paid to how the concepts of 'soft spaces' and 'fuzzy boundaries' correspond to contemporary European strategic spatial planning practices. This paper seeks to broaden the soft space debate in a European context by offering an account of the emergence of soft spaces in Danish spatial planning. The paper analyses how spatial strategy-making is carried out at the scale of two new soft spaces emerging in Danish spatial planning at subnational scales. In these soft spaces, the paper explores how policy agendas are being shaped and reshaped, and how these agendas seek to influence formal planning arenas. The central argument running through this paper is that soft spaces in neoliberal political climates might be used as vehicles for neoliberal transformations of strategic spatial planning. In 2006, the Danish Ministry of the Environment published a national planning report articulating a 'New Map of Denmark' consisting of two urban regions. The urban regions were promoted by the ministry as new appropriate scales for, on the one hand, managing pressing spatial issues such as urban sprawl and congestion, and on the other hand, promoting economic growth and international competitiveness. In 2008, new multi-level collaborative processes were initiated at the scale of these urban regions, involving the Ministry of the Environment, administrative regions, and municipalities. The aim of these processes was to prepare informal and voluntary spatial frameworks and overall urban structures for the two regions, turning these into 'soft spaces' of strategic spatial planning. The paper demonstrates how the state's ambitions of introducing overall spatial frameworks at the scale of urban regions were downscaled during the processes, as the political climate within the ministry changed as a liberal Minister of the Environment was appointed. At the same time, the municipalities, who primarily perceived the soft spaces as cross-municipal platforms for transport infrastructure lobbying, were successful in reshaping the agenda-setting in the soft spaces towards policy agendas of investments in transport infrastructures and economic development. The lessons from the Danish experiences with soft spaces suggest a need to pay critical attention to how policy agendas are being shaped and reshaped in soft spaces in concordance with transformations in politics. The evidence from Denmark suggests that the flexible nature of soft spaces allows agenda-setting in them to be reshaped to support policy agendas of powerful actors or reflect transformations in politics. In the current neoliberal political climate characterising many European countries at the moment, there is a risk that agendasetting in soft spaces are reshaped to promote neoliberal policy agendas, turning soft spaces into vehicles for neoliberal transformations of strategic spatial planning.

#### Gateway M2 DIFFERENTIAL TERRITORIAL GOVERNANCE IN SOUTHERN EUROPE: AN INSTITUTIONALIST APPROACH

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'Ideal-type' approaches often provide a powerful conceptual support for territorial governance studies. Analysis of national planning systems may illustrate this view, as they use to be clustered in distinct 'families' according with the legal, administrative, socio-cultural and political traditions of their institutional contexts (Nadin and Stead, 2008). As a consequence, neighbouring nations seem to converge in many respects, concerning their territorial governance practices. This is particularly true in countries that for geographical reasons remained

removed from major cultural interchanges occurring in the 'core' (Dühr et al, 2010). Southern Europe, in particular, persisted for a long time in strong formal regulation, hierarchic administrative systems and a general prevalence of 'government-led' over 'governance-led' approaches of public policy. Nonetheless, differential evolutionary patterns may also be observable within each of these 'families', particularly in the last few decades. In the case of Southern Europe, while some countries are not over-centralized anymore, as they released over-regulation at the expense of more participative territorial policies, other nations evolved at a much slower pace. Whereas Europeanization may provide a strong theoretical support for these diverse developments, there is a need for a more systematized analysis of the factors that lay behind major differences between nations belonging to the same 'tradition' of territorial governance practices. As a multifaceted theoretical body, the socalled 'new institutionalism' may help us in this task, as it provides different perspectives of the problem (Hall and Taylor, 1996). Rational choice institutionalist tools, for instance, may focus the role of local actors' collective action - their strategies, aims and interests - either in promoting change or in hampering it. Sociological institutionalism reminds us for the need to highlight the prevailing values and cultural norms of each institutional context. Historical institutionalism points us to the contribution of temporal sequences of events to the spatial differentiation of evolving trends. Each of these approaches provides a wide range of explanatory factors for recent trends in territorial governance. While some of these factors contribute for major shifts within Europe, others reinforce existing pathways. There is always a 'tension' between the two contradictory influences. By systematizing different 'new institutionalist' approaches, and using them in the analysis of the recent evolution of territorial governance in two Southern European countries - Portugal and Italy - the paper aims to conclude about the 'tension' between aspects that contribute for spatial differentiations within Europe and factors that promote converging policies and practices.

#### Gateway K

# HIGHER EDUCATION INSTITUTIONS AND KNOWLEDGE ANCHORING IN THE TOURISM SECTOR: THE ROLE OF PUBLIC POLICY

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The tourism sector is generally perceived as a low competence sector in terms of staff education level, and knowledge is rarely considered a key driving force within the industry. Studies have indicated that skills deficits are a barrier to innovation in tourism, and that higher education institutions could potentially play a role in transferring academic knowledge to tourism firms. This paper reviews the literature on regional innovation systems, triple helix and clusters concerned with innovation in the tourism sector. It then goes on to explore triple helix initiatives in the tourism sector in two selected regions of the Nordic countries, drawing on a project financed by the Nordic Council of Ministers on the role of higher education institutions in regional development. The model of knowledge anchoring developed by Dahlström and James (forthcoming) will be used as a point of departure for the case study analysis. Knowledge anchoring refers to the ways in which firms and other actors who are located close by as well as at a distance. The model contains four main areas of interactions which policymakers may target in order to support knowledge anchoring. The paper will explore policy implications related to facilitating cooperation between higher education institutions, intermediate organisations and tourism firms, as well as to ensure territorial knowledge anchoring.

#### Gateway A

# EXPLAINING SWEDISH REGIONAL ACTION TOWARDS THE EU: A CASE OF FUSING SOCIAL CAPITAL?

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Sweden's EU membership has spurred a process where competences of its central government have been dispersed both upwards to the EU-level and downwards to sub-national regions (akin to multi-level governance). This development has contributed to an emphasis, by policy-makers and in key strategic documents, on the importance of utilizing vertical and horizontal policy-networks in order to create more efficient policies. This study, therefore, sets out to explore regional aspects of this change, i.e. regional actors' utilization of horizontal networks as a means to respond to pressures arising from the Europeanization of policies, and in order to enhance regional interests in the policy-framework of the EU. This will be examined in

the area of regional growth policy. More specifically, this examination has three purposes: (1) To detect significant factors promoting regional action towards the EU; (2) To examine to what extent these factors are present in the case of one Swedish region, i.e. Värmland, and its implications; (3) To scrutinize as to whether or not regional action in Värmland is narrow or broad in its scope, i.e. does it merely comprise cohesion and structural funds (narrow), or does it have the broader scope found in key documents, such as Europe 2020 and Horizon 2020, where a more holistic strategy for smart, sustainable and inclusive and growth is emphasized. In order to answer the first and second purpose, this study draws upon the micro-fusion conceptual framework (developed by Miles et al) and theories of social capital. The empirical data utilized for this part of the study is based on a questionnaire sent to key actors in the area of regional growth policy in the region of Värmland (N = 170). This data is, mainly, analyzed using linear multiple regression and social network analysis (SNA). The third, and final, purpose of this study is answered by comparing content in key strategic documents with the results from deep interviews. The latter being carried out with regional actors found to have key roles in this policy area. The results from the multiple regression models show that bridging social capital is a positive and highly significant predictor of the degree of regional action, even when holding a number of other relevant factors constant. Other predictors that are significant in some models are: (a) actors attitudes towards engagement with the EU, (b) their participation in institutionalized forums, (c) their gender, and (d) the main aim of the network they are involved in. The SNA study indicates that the intraregional network between different organizations is fairly dense, with a density level of 0.73. The high density level and fairly high levels of bridging social capital between different types of actors imply that Värmland's prerequisites for cooperation and coordination of its interests towards the EU are good. However, it remains to be seen where these aspects of social capital will be harnessed through changing attitudinal perspectives of actors towards broader and more systematic uploading of sub-regional preferences and thus whether they are willing to 'fuse' further to get 'the best out of the EU'.

#### Gateway M1

## GOLF COURSES AND ASSOCIATE OPERATIONS IN THE VALENCIAN COMMUNITY AND MURCIA REGION IN THE MEDITERRANEAN SEA (SPAIN): A NEW PERIPHERALISATION AT EUROPEAN LEVEL

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This paper presents a few results of a research carried out by the Town Planning and Land Use Department of the Universidad de Alicante at the end of the last decade thanks to an agreement with the Spanish Ministry of Environment. The justification of subject matter is the appearance of numerous operations including golf courses in the Valencian Community and Murcia Region; about 180 new operations in these regions whereas there are about 30 at present, and nearly 800.000 homes and 1.500.000 people on a territory with slightly over 6.000.000 inhabitants. The analysis of these operations shows that new strategies to locate golf courses have been detected. Thus, in a first generation (from the middle of the twenty-century to the end of the twentycentury) golf courses were the result of the introduction of golf as sport and as complementary offer for the tourism, and, in a second generation (since the beginning of the twenty-first century) golf courses meet a standard pattern: businesses linked to houses, and located all over the territory connected to mayor road links. This model of territorial occupation has become known as "new golf cluster" or "diffuse residential archipelago": large housing development in an isolated area between 180 and 280 hectares, including the golf course, which normally has 18 holes and an area of 50 hectares, with a capacity for 2.500-3.500 houses and residential densities around 15-20 houses per hectare. There are four reasons to explain the "new golf clusters": land profitability, closeness to other golf courses, search for profitability in the real estate business and accessibility to airports. The last one is related to the growth of low cost airlines so that we could hypothesize the emergency of a new periphery at european level where car and motorway are replaced by airplane and airport in a new dimension of the centre-periphery relations. In this sense and for checking these hypothesis, more than 1,500 opinion polls has been conducted to residents, players, tenants, etc. of the residential complexes according to their profile, reasons for buying or renting a house (for example, whether it has been important the existence of many golf courses nearby, which is a golf cluster), accessibility and public transport, facilities... Finally, according to the results of these polls and other ones regarding water and natural resources consumption, social cohesion and economic impact which were analysed in this piece of research as well, action recommendations will be proposed.

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The paper attempts to determine regional unemployment rates for European regions based on panel data with a relatively short time-series component. In the first part it is shown how the much of the evolution of regional unemployment rates is determined by national unemployment rates by industry and the regional employment structure. In the second part, a prediction model of regional unemployment rates from national unemployment rates by industry and regional employment structure is proposed, using unbalanced panel regression models with a relatively short time-series component. Specific predictive modelling approach is employed for producing and validating the predictions. Reliable predictions of regional unemployment rates that overcome the hysteresis effect present in the labour market data can be done using national unemployment rates by industry and regional employment structure

## Gateway G1 INTEGRATING MUNICIPAL LAND USE PLANNING WITH ACCESSIBILITY PATTERNS: EXPECTING (OR NOT?) SMARTER EXPANSION AREAS IN THE LISBON REGION

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Over the past three decades, the reduction of land consumption and the support to a less costly daily mobility have emerged as a major purpose, favourable to the transport/land-use planning integration principle. The community benefits of this guiding principle remain debated in the scientific community, both about the own concept of integration, that lacks a consensual definition, and about its effects. Some authors argue that linking policies facilitates a larger individual access to urban services and facilities, reduces travelled distances and greenhouse gas emissions, encourages transit ridership, reduces land consumption and protects agricultural land in peri-urban areas. Integrated policies would be, in this perspective, one of the most efficient ways to compact city and land consumption reduction. As a consequence, in several countries the regional-scaled strategic documents are seeking to join transport and land use policies. The old Danish Finger Plan in Copenhagen and the Dutch ABC Policy are the most well-known examples of such principles. In Portugal, far more recently, the National Program for Planning Policies (PNPOT), the Regional Plan of the Lisbon Metropolitan Area (PROT-AML) and of the West and Tagus Valley (PROT-OVT) define urban containment, the reinforcement of individual accessibility at a metropolitan scale, and the protection of the agricultural land in peri-urban areas, as the priorities of the urban and regional planning. At a local level, the Municipal Plans (PDM) are supposed to conform to these regional orientations by creating local rules for limiting developable areas and direct them to the already existing urban and transit nodes. Hence, joining various PDM's in a city-region as a whole would spawn a global sustainable and smart growth planning. However, policies linking face several obstacles. Most authors claim that financial and political constraints are frequently the main determinant of integration failure. Another typical studied example is the local resistance to densification. But one of the potential determinants seems to be underrated, deserving a deepened analysis: the role of the planning system itself and, more precisely, the land allocation options. It is plausible that the planned developable areas do not conform to the metropolitan-wide scale commitments or, in a more roughly manner that they could be interpreted as poorly sustainable options. Since city planning consists of legal competences fragmented by the administrative boundaries and often dependent of the land opportunities, one can assume that the cases of effectively metropolitan-scaled integrated policies are scarce, and even scarcer the evaluation of the existing options, of the implementation, and its effects. This paper is part of the preparatory phase of a three-year research project that begun in January of 2012 and that seeks to examine the transport/planning integration issue. More specifically, two main questions will be explored here. Firstly, how and to what extent the local plans (PDM) elaborated by all municipalities of the metropolitan region of Lisbon during the last two decades, can be considered 'Smart Growth friendly' and sustainable? We will particularly focus on some land use projections, like the location of developable areas and its relationship with transit corridors, open spaces (particularly the agricultural land) and the spatial fragmentation of the metropolitan land uses. Secondly, what metropolitan-wide scale balance can be made about the sum of all PDM's integration-related prescriptions, and what can be expected from them in what concerns the evolution of the inhabitant's accessibility? This study addresses the questions by analysing georeferenced PDM's maps, relating them to a range of accessibility and transit-proximity measures. Based also

on the population census and housing stock data (1991, 2001, 2011), we build specific indicators of municipalexpected urbanisation patterns, land consumption and individual accessibility, taking into consideration the social composition of the areas. A typology of the metropolitan areas is then built, based on these measures and on their link with accessibility measures. We therefore deliver an evaluation about how PDM's nurture (or not) the constraints system from the beginning of the urban regulation process. This initial work will be used in a next step – not presented here – of the project, in which the real expansion will be analysed and compared with the expected one.

#### Gateway C THE ADAPTATION AND INTEGRATION OF ACADIANS FROM NEW BRUNSWICK TO THE URBAN ENVIRONMENT

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The migration of Francophones towards urban centres within Canada has been an ongoing phenomenon since the late 19th century. Today, Francophones play a considerable role in determining the development of these urban centres, by both shaping and participating in various flows of migration. As an example, since the 1960's, within the province of New Brunswick, an increasing number of Francophones have migrated from the Northern part of the province to the urban centres in the South. This phenomenon has changed the dynamic of the population as more and more Francophones tend to be located in the Moncton-Dieppe area and other major urban centres, such as Fredericton and Saint John. Consequently, the Northern part of the province is losing a considerable amount of its population. A large majority of these migrants are a part of the younger population, such as students and federal workers. According to Statistics Canada, it is estimated that between 2001 and 2006, more than 2400 Acadians have moved to the Moncton-Dieppe area. The 2011 Census' latest publications show that the Moncton-Dieppe area has experienced a 7.7% increase in its population since 2006. This rural exodus within New Brunswick has been the subject of a considerable amount of research and literature. However, two closely related topics have been largely ignored: the adaptation and integration processes of new migrants in an urban centre. This research focuses on the adaptation and integration processes of Acadians migrating into three different cities in New Brunswick: Moncton, Fredericton, and Saint John. By focusing analytically on the migration experiences of the Acadians newcomers, this research tries to understand how Acadians adapt and integrate themselves to their new urban environment and francophone community. Furthermore, this research also examines the role of the public and private spheres throughout the adaptation and integration processes. Questionnaires as well as group interviews have been used in each city during winter 2012 for the purpose of this research. The results of this study show the importance of the francophone community within these cities to the Northern newcomers' adaptation and integration processes. However, it is important to mention that not all three cities exhibit the same characteristics. As such, the Moncton-Dieppe area offers a greater socio-cultural environment in comparison to Fredericton or Saint-John, which ultimately benefits the migrant. Adaptation and integration for inner-province migrants moving to Fredericton or Saint John is harder due to the lack of a greater Acadian socio-cultural environment. Community centres, job opportunities, educational opportunities, services, and other important resources offered in French are actually rare and minimal within Fredericton and Saint John, whereas they are easily accessible in the Moncton-Dieppe area. These factors tend to influence the overall migration experience, as well the adaptation and integration processes. Thus, this research emphasizes the significance of an arrival community's socio-cultural composition for new migrants. Acadians have a harder time adapting and integrating to city life when a community is less accommodating of their unique cultural needs. French institutions, associations, services, cultural events, as well as francophone neighbours and acquaintances help to facilitate the adaptation and integration processes.

#### Gateway K2

# CLUSTER DECLINE AND RESILIENCE – THE CASE OF WIRELESS COMMUNICATION CLUSTER IN NORTH JUTLAND, DENMARK

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Regional clusters have gained much attention by scholars and practitioners during the last 20 years. Increasing interest in clusters reflects the fact that successful clusters have emerged in a wide range of industries in different countries around the world (Porter, 1998; 2000). Although there is lack of consensus regarding the economic benefits of cluster to the regions (Jimenéz & Junquera, 2010), the prevalent existence of regional clusters provides motivation for researchers to study different aspects of the clusters (Enright, 2001). One key feature of regional clusters is that once they have emerged, they appear to be very resilient to chocks and often continue to exist for many years. Therefore most studies on clusters focus on how successful clusters emerge or identify factors and processes that make clusters grow. However, sometimes technologies and market conditions suddenly shift; firms close down, entry of new firms stops, highly skilled employees leave and clusters decline. It is inherently difficult to point to single explanations for the decline of clusters, since the changes at cluster level is more than the sum of changes at firm level and could come from the interaction of several factors inside and outside the cluster. As a result it is necessary to look both at the micro dynamics of the cluster e.g. new firm formation and structural changes in the industry and cluster, such as technological change and market demand. The purpose of the paper is to study the process of decline and how the concept of resilience can explain the decline that has been overlooked in the literature. The conclusion we derive is based on a case study of the wireless communication cluster in North Jutland, Denmark. The wireless communication cluster in North Jutland is a rather mature cluster that has existed for 40 years in a rapid changing industry. By following its evolution path utilizing the concept of resilience, we conclude that the cluster seems to be in a declining phase because it has lost its resilience. In its history, the cluster experienced a couple of crises, but seemed to have kept the growth momentum due to high resilience. However, when the technology shift from 2G to 3G happened in the mobile communication sector in the early 2000s, the cluster appeared to be less resilient as new firm creation was deteriorated and the knowledge workers released from the firm exits migrated to other industries and regions. Several factors could be pointed out to have influenced the resilience of the cluster in recent years. Technological lock-in, exit of firms that have been major sources of spinoffs, lack of control on MNCs decisions elsewhere, and lack of timely initiative to engage in emerging technologies by a local university have all contributed to impairment of the cluster's adaptive capability to a major shock in the industry - technology shift from one generation to another. We find the resilience concept useful in explaining why a cluster declines in a certain context and suggest further operationalization of the concept in cluster studies.

#### Gateway O

# LOCAL PROPERTY DEVELOPMENT MILIEUS: PLACE ENTREPRENEURS AND THEIR NETWORKS AND REPUTATIONS

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Over the past three decades UK urban policy has used property development as a tool to stimulate local economies. Construction activity creates jobs and provides incomes. New accommodation enhances the productivity and supports the expansion of indigenous firms. It may also attract new businesses from elsewhere. Physical redevelopment allows cities to adapt to economic restructuring and increases the image of and confidence in local areas. Developers are the key coordinators of and catalysts for development. They interpret the requirements of occupiers and investors and translate them into built form, thereby influencing the shape of local economies. Consequently, local authorities have been urged to forge closer relations with private sector developers. However, relatively little is known about the perspectives, actions and strategies of these actors. If they are mentioned at all within policy documents, developers are treated generically and their impacts are commonly subsumed within the catch-all of 'inward investment'. Such an approach blinds policy to the variations in developers' characteristics and has resulted in an emphasis on the structures rather than the processes of partnership. The paper adopts a social institutionalist perspective. It argues that developers are shaped by their operational environment as much as they shape it. They form part of local development milieus and rely upon the tacit market knowledge stored therein to build the 'locational literacy' necessary to identify, appraise, fund and ultimately gain permission to undertake development projects. Developers invest

considerable resources in establishing and maintaining personal networks and local reputations: they become socially embedded in a limited number of physical/institutional spaces. Different types of developer construct and exploit their local positions in very different ways and are motivated by various social, community and economic objectives. Recent research indicates that the risk-averse logic of external, institutional capital renders all but the most lucrative urban regeneration projects unattractive. In contrast, locally based firms may open up new pathways of urban development, creating alternative opportunities for economic growth. If the potential benefits of encouraging indigenous property developers are to be realised, policy must be tailored accordingly. To do this, a sophisticated and fine-grained understanding of the dynamics and capacity of local development milieus is required. The paper presents the results of a detailed study of property developers active in the urban core of a substantial post-industrial conurbation in the North of England. Existing theoretical frameworks that attempt to deal with the complexity of local development sectors are not sufficiently detailed to support in-depth research and analysis on a consistent basis that allows for close comparison. To address this problem, the paper develops an analytical framework based on 'project ecologies' and uses it to interrogate the institutional relations that shape the perspectives, actions and strategies of locally active developers. Through the application of an existing approach to the study of industrial partnership, a threefold typology of developers based on entrepreneurial behaviour is justified. This helps make sense of the composition of urban property development sectors. It elucidates the industrial complementarity of different types of developer with their distinctive characteristics and motives. The paper demonstrates how some locally based developers act as 'structural speculators', attempting to enhance local economic development in the broadest sense in order to maintain demand within their local property markets; and how they make use of established networks, reputations and experiences to pursue this end. When forging partnership with property developers, local public agencies should seek out this type of developer in order to reap the greatest dividends.

#### Gateway D

# CRISES, POLITICAL CHANGES AND DISPARITIES IN THE ACESS TO HELTH SERVICES IN PORTUGAL

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It is a fact that the Portuguese population's health has improved considerably over the past 20 years, a consequence of economic and social changes occurred in the country, linked to better nutrition, hygiene, sanitation and housing. Also changes in the health services have helped in improving health, but currently, the responsibilities of the state are increasingly transferred to private institutions, where the interests do not coincide with the foundations of the system, jeopardizing the gratuitousness and universality of this, or for the families. The population is aging and therefore require more and more health care, however, the existence of regional inequalities in the distribution of health and access to health public services, could restrict the accessibility of different population groups to these services. The provision of health care varies geographically in Portugal, that is, there are inequalities between rural and urban, as well as between the coast and inland, and in many cases, the population requiring more health care shows lower access in less urbanized areas. Socially, there are also inequalities in access to services that are related to the social class, education level of the individual, with the age, family structure, with its physical mobility to health care, and with the costs of access to services, among other factors. Often those who are more socially disadvantaged and live in precarious situations, are less healthy and use health services with lower frequency than those with better quality of life, on the other hand, physical variables such as distance, location of health services and spatial distribution affect in the same way the access of consumers. This framing of the situation raises questions concerning the regulation of the National Health Service, which, as fundamental principles, guarantees the right to health for all citizens, based on free and universal access to health care, but that, however, has limitations imposed by financial, human and technical resources that reduce the impact of legislation. The inefficiency in the equal performance of the NHS, also has the responsible factors, population dynamics related to the rarefaction of the interior population, the urban concentration along the coast, the phenomenon of aging, the growth of the functional dependence of these individuals and the diversification of health care needs resulting from the increased life expectancy. These demographic changes besides influencing the access and equitable use of public services will consequently exclude population groups of health care system, because accessibility is not the same in all geographic areas or in all population groups and the movements increase the costs to individuals and families, especially in rural and interior areas. The notion of accessibility of public services in the concept of territorial cohesion is relatively new in European political texts, but constantly reaffirmed (Ruffray; Hamez, 2009). Territorial cohesion is linked among many dimensions, with the promotion of social inclusion and the improvement of access to health care

and education to the population, thereby linking the component of social inclusion with the component of social mobility. However, in Portugal there is still much to be done in this field, the most disadvantaged rural populations not only suffer from more health problems but also suffer the consequences of low geographical access to services in question (Santana, 1995). In rural and interior areas (Alentejo and Center Region) statistics reveal that population aging is more intense there is a higher percentage of elderly living alone, with an worse self-assessment of their health condition, a less diverse network of health care services, and there is also a lower average of appointments per individual, a value that has been declining in the statistics, possibly result of the restructuration of these services and the economic situation of the country. The inter-regional differences, particularly between more or less urbanized areas, are relevant to explain the difference in health and healthcare of the population, the area in which people live has influence on their health, even more than their socioeconomic circumstances (Graham, 1999; Diez Roux, Link & Northridge, 2000). In the present work, is intended the reflection on the relations between the practices and health needs of the population, the distribution of services within the region and the density population of the regions / areas, in order to measure the wellbeing of the population and the sustainable development of the region.

#### Gateway E

# RURAL AREAS IN THE CONTEXT OF THE KNOWLEDGE-BASED ECONOMY AND APPLICATION OF INNOVATIVE TOOLS: CASE OF THE CZECH REPUBLIC

#### Martin Pelucha, University of Economics In Prague, CZECH REPUBLIC Gabriela Rihova, University of Economics In Prague, CZECH REPUBLIC

This paper presents results of the project IGS 15/2012 (Grant Scheme of the University of Economics in Prague) that is focusing on analyzing of existing territorial aspects of the rural development policy. Above mentioned project builds on authors experience gained during the period 2009 - 2011 in the cooperation of the University of South Bohemia in Ceske Budejovice and the University of Economics in Prague. Authors of this paper were guarantors of two thematic blocks: analyzing of territorial impacts of the knowledge based economy and application of innovative tools in the rural development policy. The term "rural area" generally evokes associations connected with agriculture, poor transport accessibility, low educational level of the population, selective migration combined with the departure of young people to towns and, as a result, rural ageing, idyllic countryside with good environmental status but without job opportunities outside the agricultural industry etc. Indeed, these characteristics can be identified in some rural areas but the truth is that there is not just a single homogeneous rural area with homogeneous problems. On the contrary, one can identify many types of rural areas and, therefore, the list of possible characteristics of rural areas referred to above cannot be generalized and the areas cannot just be considered to be disadvantaged or declining. Ouite the contrary: one is able to specifically identify advanced and developing rural areas not only against the background of towns and urbanized areas, for example, but also in the immediate vicinity of crucial transport corridors. Changes are also brought about by so-called digital regions that are characterized by the availability of infrastructure for information and communication technologies (ICT). Therefore, rural areas do not have to always mean and do mean problematic areas associated with population migration. The main purpose of this paper is to confront the connections outlined above that have affected and still affect the shaping of rural areas at the threshold of the 21st century. However, it is necessary to emphasize that this publication only represents one of the perspectives from which rural areas can be viewed, and it would be appropriate (and probably also desirable) to continue to enhance the perspective not only in professional discussions but also in scientific research projects. The authors aim to point out not only traditional issues in rural development (e.g. rural development definition, evaluation of the approach to rural development, multifunctionality) but also issues related to the territorial impacts of knowledge economy and application of innovative tools in the rural development policy. The paper builds on the need for a change in the paradigm of development of rural areas in the context of the existing trends that directly affect the areas. It in particular includes globalization and technological development processes and the increased importance of knowledge economy for states', regions' and rural areas' competitiveness. This paradigm is also necessary for better understanding of the relation to the development of smart, sustainable and inclusive places which is emphasized by the European Commission for the following decade till 2020. Altering the existing area availability conditions in an overwhelming way, these processes reinforce the thesis that rural areas are not and cannot be a synonym for declining or merely disadvantaged localities. Therefore, the paper focuses inter alia on the evaluation of the existing theoretical approaches that are closely related to the development of knowledge economy and its territorial impacts, and on knowledge economy measurement methods. The structural aspects of rural areas also include problems with the areas' accessibility not only in the traditional terms of transport but also in terms of developing so-called digital regions as an emerging parameter for the development of knowledge economy at the regional and local levels. Individual selected aspects are demonstrated on an example of the current situation in the Czech Republic. The paper's results imply that rural areas still have a lot of unanswered questions at the threshold of the 21st century and their number is not done growing yet in connection with the current globalization and ICT development trends. Rural areas, their functions and traditional understanding thus undergo significant changes, which in the future will lay a substantial emphasis on the complexity of approaches to solving existing or newly occurring problems not only in scientific research projects but also in the creation of adequate policies.

#### Gateway K3 TRACING LONG TERM AND MULTIDIMENSIONAL SEQUENCES OF IMPACT FROM ACADEMIC R&D

#### Eugenia Perez Vico, Chalmers University of Technology, SWEDEN

It is widely believed that publicly funded research fail to generate sufficient economic impacts. Often, this view is narrowed down to a perceived incapacity of researchers to generate a direct impact by 'commercialising', i.e. by patenting and starting spin-off firms. However, some question this belief, arguing that empirical evidence for its existence is lacking and that accounting for the full impact from academic R&D is difficult. One difficulty regards indirect impacts of academic R&D, such as benefits mediated through firm, student or policy activity. Some studies reveal indirect impacts that unfold in sequences, emerging and magnifying through cumulative interactions between academia and its context. However, a systematic analysis of these sequences of impact is lacking. The purpose of this study is, therefore, to take a step further towards gaining a fuller understanding of the impact of academic R&D by analysing sequences of direct and indirect impacts and systemically explain how these emerge. This will contribute to a more accurate understanding of academic impacts and to the development of a methodology for capturing and explaining sequences of impact. The study applies a new framework that captures and explains the impact of academic R&D using the technological innovation systems (TIS) framework. The TIS framework captures the development and diffusion of innovations through key processes; Legitimation, Influence on the direction of search, Knowledge development and diffusion, Resource mobilisation, Entrepreneurial experimentation, Market formation and Network development. The new framework captures and explains the impact of academia by its influence on these processes. Sequences of impact are accounted for through the interdependence between the processes. Professor Bengt Kasemo, a longestablished and well-recognized Swedish physicist, is chosen as a suitable study object for this exploratory paper. Data comes from 20 semi-structured interviews, 150 reports, articles or books, patent and bibliometrical searches and mapping of key individuals. The data reveals sequences of impact in three areas; catalysis, biomaterials and research policy. Kasemo's interest in catalysis sprung from a cooperation with Volvo in 1974. They developed knowledge and influenced each other's direction of search. Impact sequences evolved as networks developed when additional industrial partners became involved. Kasemo initiated a R&D centre that integrated diverse research groups and industry and developed and diffused knowledge, influenced the direction of search of involved companies and supported entrepreneurial experimentation and networking. Resources were mobilized as industry employed students. Further sequences unfolded as some industrial partners became knowledgeable catalysis customers, developing the market. Kasemo's biomaterials engagement sprung from contacts with Per-Ingvar Brånemark in 1979. Brånemark developed dental implants whose functionality was not fully understood. They explored biomaterials in several research programs, developing knowledge, influencing the direction of search of the area and mobilizing resources through training students. Sequences evolved as Kasemo became a highly recognized researcher and legitimized the technology while Brånemark experimented and commercialized applications through the company Nobel Pharma. Researchers from Kasemo's group eventually started their own groups at research institutes. These became important partners in knowledge development and experimentation for Nobel Pharma and the emerging regional biomedical industry, extending sequences. Networks and markets developed as a new product was introduced. In research policy, Kasemo legitimated integrating needs-driven and fundamental research, interdisciplinary research and the importance of critical mass within research groups. These ideas diffused through key players, influencing the direction of search of research policy. This resulted in experimentation with new ways of organising research, extending sequences. Patterns appear regarding how and when sequences emerge. Early impacts target knowledge development and diffusion closely linked with influence on the direction of search. After 10-15 years, impact on resource mobilisation, legitimation and network development emerge. Another 10-15 years later, entrepreneurial experimentation and market formation are impacted. Further, networks enable sequences of impact since human interaction is central and impacts are deeply intertwined in the actions of others. Some important impacts are subtle, such as being an intelligent discussion partner or mentor. In conclusion, the study reveals a multidimensional impact intertwined in its context. Knowledge development and diffusion was continuous and often parallel with influence on the direction of search, resource mobilisation and legitimation. In these processes, the researcher was directly involved. Substantial indirect impacts mediated through others also emerged, particularly in market formation and entrepreneurial experimentation. Networks and involved partners were important for sequences to develop. When in place, sequences of impact unfolded leading to industrial development after several decades. Policy should recognise that impacts from academic R&D are diverse, subtle and materialise as sequences over longer periods of time. Although indicators capturing the initiation of sequences of impact, such as the extent of knowledge development and interaction with other actors are useful, methods accounting for causality and context interdependency are also needed.

#### Gateway G2

#### EVALUATING OPEN SPACES AS RESOURCES FOR THE SUSTAINABLE DEVELOPMENT OF TERRITORIES: AN INTRODUCTORY DISCUSSION AROUND INTERDISCIPLINARY APPROACHES

#### Giulia Pesaro, DIAP Politecnico Di Milano, ITALY

The crucial importance of open spaces as a part of a balanced sustainable development path seems, nowadays, to be a common and shared point in territorial governance and management. Still, moving from theory to practice, the different influence of different assessment elements remains strong. Frequently, in territorial decision making, the weight assigned to economic values, elements and tools is greater compared to environmental and social ones, depending on different core governance or action goals by different territorial subjects. Such dynamics appear particularly critical in peri-urban and urban areas, where open spaces are too often regarded as "non productive" from a private economic perspective, while, on the opposite side, we of course find ecologists, environmentalists and other subjects acting as defenders of common/public ecological, social, health and intrinsic values. These dynamics are producing dangerous dichotomies. From the one hand, people often tend to simplify the issue distinguishing "good" social and natural environment values and "bad" economic interests. From the other hand, it is more and more clear that, in times of economic crisis, communities think they have to choose between economy and ecology, as the two elements seem to be completely antithetic. Public planning, in such a perspective, sometimes acts as the defender of open spaces, facing stronger direct economic interest rising from more traditional territorial development interventions, like large infrastructural/material and real estate projects covering still free soils. Some other times, public subjects just embrace the positions of the so called developers, because of the need to produce income and economic values. This, in many cases, without a real concern on who will be the "earners": a few private subjects or a community? Concentrate in the short term or lasting in the medium-long period? Aiming at overcoming such dichotomies, in this essay open spaces will be treated as territorial productive resources for sustainable development goals. In such a framework, approaches and methodologies to assess and promote sustainable uses of urban and peri-urban open spaces will be explored. Public subjects need guidelines and tools for producing governance and policy actions to drive their territorial system to choose more sustainable uses for urban and peri-urban open spaces. This consuming the less possible free soil and obtaining the best possible overall result: in a sense, a problem of optimal allocation in a sustainable development perspective. Such an approach is based on the idea that conservation can produce a variety of environmental and socio-economic values for a community and some examples can be done. In the case of agricultural uses of peri-urban areas, for instance, the conservation of a non-built environment coincides with the production of economic revenues for farmers and with the supply of products for the local community at "zero kilometres". Another example can be peri-urban and urban parks, where services can be offered to the community to better take advantage of the natural environment and, at the same time, creating some job opportunities. But the most important challenge seems to be the promotion and encouragement of the development of innovative solutions, able to maximise all expected values. As many different types of values are concerned, particular evidence will therefore be given to a discussion introducing interdisciplinary assessment methodologies, able to integrate all kind of values in order to support public decision making processes. Tools able to make it more clear and evident that urban and peri-urban open spaces, in an innovative perspective, can enrich a community not only because of ecological services values but also because they can be regarded as resources for a more sustainable production of economic values in the long period. The following aspects will be explored: • assessment and communication tools able to rebalance the perception of local communities towards the importance of environmental quality protection and valorisation as a potential producer of direct and indirect economic results; • assistance to public and private decision makers in recognising all different territorial elements as resources. Environmental, social, cultural resources should be regarded as value producers as they equally participate to the production of the development and welfare a community needs; • tools able to assess a multiplicity of elements and dynamics concerning a multiplicity of decision makers and uses of open spaces in urban and peri-urban areas, in order to identify and evaluate the economic and social results of more sustainable uses of open spaces. Tools which become more important in territories characterised by a high settlements density, where the demands for different uses enter into conflict with each other on scarce territorial resources; • assessment and communication tools, able to sustain innovation and creativity in finding new solutions for a sustainable use of open spaces.

#### *Gateway F1* **CONDITIONALITY, FLEXIBILITY, UNANIMITY: IDEAS ABOUT EU COHESION POLICY'S EMBEDDED REFORM**

#### Wolfgang Petzold, Committee of the Regions, BELGIUM

Reforms of EU cohesion policy have been analysed as path-dependent (Mendez 2012; Bachtler/Mendez 2007) and side-payment oriented (Choi 2010; Borrás/Johansen 2001) 'games real actors play' (Scharpf 1997; Pollack 2003) under constraints of a not fully developed fiscal federalism (Begg 2009). Contrary to the usual narrative that EU cohesion policy contributes to convergence between the less and more developed regions in the EU, research on the effectiveness of structural funds has delivered mixed results (Wostner/Šlander 2009; Ederveen/Gorter/De Mooij/Nahuis 2002). Towards the background of a literature review and the ongoing debate between the EU institutions on the policy's reform post-2013, the paper will question why it occurs that cohesion policy still allocates increasing shares of the EU budget. Some ideas will be presented on the importance of unanimity in the Council as regards the overall budget and the assumingly increased influence of the EP on cohesion policy's design through the co-decision procedure. The key argument will be that the policy's 'successful failure' (Seibel 1996, 2011) can be explained by its embeddedness in an organisational environment, which is interested in both failure and ignorance about failure, but has at the same time the potential to produce unintended outcomes and differentiations along the policy cycle (Heinelt/Lang 2011; Mendez/Bachtler 2011). The logics of the EU budget and cohesion policy's current reform seem to indicate that

(a) 'conditionality' could become the token and main reform content with the potential to fuel both conflict (within the Council and between EP and Council) and agreement (when judged as 'innovative' in comparison to other policy fields);

(b) 'flexibility' in the sense of deviating from the Commission proposals on 'thematic concentration', the performance reserve, audit provisions etc. might be used for 'soft topics' on which agreement can be achieved by lowest common denominator solutions;

(c) as regards 'unanimity' on the overall budget, cohesion policy might again be perceived to present are more balanced spread sheet with sufficient potential to imagine win-win situations for net payers and beneficiaries alike;

(d) finally, as the contents of the reform proposals remain path-dependent and provide a combination of traditional and novel items, they include the potential to build on compliance and 'loose coupling' of actors at different institutional levels.

#### Gateway J1

## THE EFFECT OF LOCALIZATION AND URBANIZATION ECONOMIES ON MALAYSIAN SCIENCE AND TECHNOLOGY PARKS: THE CASE OF KULIM HI-TECH PARK AND TECHNOLOGY PARK CORPORATION, MALAYSIA.

### Nicholas Phelps, University College London, UK Sharifah Dawood, University Science, MALAYSIA

Science and technology parks are said to play an important role in industry innovation, technological change, and urban economic growth. These territorially delimited ventures in urban as well as rural regions have been created to attract high technology firms in many countries including developing nations such as Malaysia. This paper explores the extent to which the economy of science and technology parks is connected to the localization and urbanization economies available in particular locations. This research investigates the density of linkages amongst the actors within the parks and externally. Two comparative regions were chosen for analysis, the Kulim Hi-tech Park (KHTP) located in the remote north west of Malaysia, and Technology Park Corporation Malaysia (TPM) located in the central region of the country adjacent to the nation's capital, Kuala Lumpur. The

paper draws on selected findings from surveys of companies located on the two parks and upon interviews conducted with park management organisations and other industry and property experts. We explore the suggestion that the success of science and technology parks cannot be separated from the wider urban economic environment in which they are located and operate.

#### Gateway E THE MODEL OF ESTIMATION OF PERIPHERAL REGION IN LITHUANIA

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Sustainable development, cohesion policy, core and periphery regions separation, territorial polarisation, regional cooperation are the issues that nowadays are very often underlined by politics, scientists, and civil servants. Developing regional policy is one of the main issues of EU program. Issues connected with cohesion policy are topical in Lithuania as well. In this case, peripheral regions are the most sensitive and problematic regions that should attract attention and particular measures should be taken to awake these regions. Therefore I chose for the dissertation work to make the research on peripheral regions in order to underline these sensitive regions in Lithuania. Taking into account European scale it seems that all Lithuania should be underlined as periphery the country quite far away in the North-East from core EU countries. But going down to lower scale and paying attention to one particular country it might be easily seen that every country has its own core and periphery regions and it does not matter how developed a country is. At the beginning, before going to deeper research there is a need to understand what the periphery region means to look for the most suitable definition. Also, it is necessity to stress the indicators that might be taken into account while making a research and looking for these least developed or even dying regions. Underlying peripheral regions is the first step before offering the suggestions how these most disadvantaged regions might be improved or reborn. Therefore, at the conference I am going to give the presentation on methodological aspect while pointing out the way how the peripheral regions might be estimated (concentrating on Lithuania). Despite the special attitude towards Lithuania this model with a small modification might be suitable for other countries as well. Just at the moment in the title I stress Lithuania's name because the indicators that were chosen to underline the peripheral regions are the ones that might be particularly essential for Lithuania. The model that I am going to present at the conference differs from already existing others because of its broad view to the peripheral regions. As regional geographers we are interested in broad view of territories, thus the model I want to present takes into account social, economical, distance, demographical, environmental, cultural and political aspects. Apart from that, while talking about peripheries in the broad view a big number of indicators that expose each aspect are going to be presented.

#### Gateway E1

# FOSTERING SMART PLACES THROUGH NETWORKING

#### Kim Pollermann, Institute for Rural Studies, GERMANY Petra Raue, Institute for Rural Studies, GERMANY Gitta Schnaut, Institute for Rural Studies, GERMANY

To bring forward rural development, the Rural Development Programs (RDP) funded by the European Union support a wide range of activities. LEADER is one part of this, and works as a bottom up-oriented, participatory approach with a cooperation of local actors in rural places (LEADER-Regions). In LEADER, stakeholders of different institutions and origins come together in a Local Action Group (LAG) as a kind of a public-private partnership and make decisions about the financial support for projects. In this context participation and networking is crucial. The Local Action Groups mainly deal with tourism, diversification of the rural economy, agriculture, environmental matters, demographic change and quality of life. Innovation is thereby an important aim. Also the qualification of rural actors is a relevant aspect. A general assumption in this funding programme is that the networking and working together of stakeholders from different sectors play an important role in creating new ideas and advancing innovations. In this context LEADER is also able to increase regional identity as a common "sense of place," and to mobilize the commitment of local actors and endogenous resources. Accordingly LEADER and the related networking could contribute to foster "smart places." To discuss the impact of LEADER on improving "smart places" through networking, the findings of the evaluation of Rural Development Programs (RDPs) in six German "Länder" (federal states) are used. To explore the forms of

networking as well as the outcome of projects and impacts for rural development, case studies (nine regions) and two surveys with written questionnaires (1500 members of the LAGs; 100 LAG-managers of LEADER-Regions) were conducted. Against this background, the paper will discuss three major questions: A) Which size of a region is suitable for networking? LEADER is a place-oriented funding scheme and the size of the regions varies. An interesting question is: which size is best suited for networking? On the one hand a critical mass should exist, on the other hand, regions that are too large could affect the involvement of local actors. The EU regulation fixes the upper and lower limits for the LAGs area: The population of each area must as a general rule be not less than 5,000 and not more than 150,000 inhabitants (the limits are flexible in properly justified cases). In the regions examined in Germany the size is usually between 30,000 and 150,000 inhabitants, so it will be possible to discuss advantages and disadvantages of these differences. B) Which role can a funding structure like LEADER play to improve networking? One objective of LEADER is to bring public, private and civil organisations together and create methods and knowledge for cooperation to achieve common goals. The survey of LAG-members shows positive results: there are improvements in the "cooperation beyond administrative borders" (respectively narrow village boundaries), in "improving of understanding views from other groups" and the "cooperation between different groups". Thus LEADER is an example of how an external programme can connect actors from different interest groups, who, without this programme, would otherwise not have met. Results of the cooperation are an exchange of knowledge (also in the sense of creating higher qualifications to foster smart places), as well as the development of new ideas and new ways of sharing information. C) Which kind of projects support the "smartness" of places in LEADER-practice? To foster smart places, projects are beneficial especially in the fields of a) education, b) research/innovation and c) digital society (the three fields of "smart growth" in the Europe 2020 Strategy). For the development of creative solutions and new ideas it is often advantageous when no narrow administrative limitations apply to the kinds of projects. The possibility of funding experimental or innovative projects via LEADER depends very much on the extent to which the RDPs are able to give a suitable framework to fund projects outside the standard menu of measures. So in theory innovation plays an important part in LEADER, but in practice it is limited. This assumption is underpinned by the results of the survey of LAG-managers, who also noticed a deterioration in comparison with the possibilities of the previous funding period (LEADER+). Because of these problems with the funding of innovation some federal states in Germany, made improvements already within this funding period (and hopefully more innovation will be possible in the next funding period.) Although there are limitations, in practice LEADER shows, what is already possible: Examples at the session will be shown for very different fields including agricultural research, innovative concepts for a sustainable usage of energy, youth projects for qualification and internet platforms.

# Gateway K THE POLITICAL ECONOMY OF INNOVATION: A MULTI-LEVEL PERSPECTIVE

Dimitrios Pontikakis, Northumbria University, UK Joanne Roberts, Northumbria University, UK Lorraine Johnston, Northumbria University, UK Dilek Demirbas, Northumbria University, UK Anthony Chou Weiting Wang, Northumbria University, UK

1. Innovation policy has been gaining currency in recent years, as one of few areas of public intervention that remain incontestable. A variety of public policy makers are moving to occupy this relatively novel policy space, ranging from supra-national authorities such as the EU, central government departments and their agencies, to regional and local authorities. Each of these policy-agents controls sizeable budgets and has at least some stake in shaping the legal and regulatory environment that supports R&D and innovation. The implications of the resulting move to a multi-level system of governance for research and innovation are not fully appreciated. Arguably, as each policy-agent specialises in a specific function, the focusing of resources and associated experience should improve the effectiveness of policy. However, the move to a multi-level political economy harbours dangers, not least the potential for regulatory capture, and the over-exploitation of a common tax base (Berry, 2009).

2. Purpose The objective of the paper is to showcase a novel innovation policy evaluation framework, distinguished by its ability to jointly gauge the impact of policy from regional, national and federal levels of governance. A major component of this evaluation framework is a comprehensive database of R&D and innovation activity policy covering variables at various levels governance. The database unites a multitude of publicly available, but hitherto disparate, statistics on R&D and innovation activity and associated policy interventions at the national, sub-national, and where applicable, federal levels. It also enriched by a number of

purpose-developed indicators of public policy, accounting for alternative intervention instruments, proxies of institutional conditions, and distribution regimes (e.g. specialisation/diversity). In terms of scope the database currently covers all major knowledge-generating regions including (to name but a few) the US, the EU, China, Japan, Korea and Brazil, and over 1,300 of their component regions. Complementing the above database is a 'multi-level' (or 'hierarchical') econometric modelling methodology (Gelman and Hill, 2009). In this paper we present a brief outline of the database and report some preliminary results from an empirical exercise meant to illustrate the possibilities of the framework.

3. The Database The database collates publicly available data on innovation from Eurostat and the OECD at the regional and national level and combines them with national-level indicators on institutional qualities, linkages and economic structure from the World Bank and several other sources (including the EU's Framework Programme database, policy variables from ERAWATCH, bibliometrics). Moreover, it includes a number of purpose-generated indicators at both the regional (e.g. political autonomy, tech. specialisation, patent spillovers) and national levels (e.g. indices on technological diversity). While the database is a work in progress and has very uneven coverage, its outer limits cover well over 30 countries and 1,000 sub-national regions. In consistence with literature on the geography of innovation, we attempt to gauge output indicators at the lowest possible level of aggregation. However, innovation systems theory (Edquist, 2007) and institutional economics, not to mention the shifting gravity of various levels of governance for innovation (Albrechts et al., 2003) suggest that level-differentiated indicators are appropriate for different types of inputs and institutional contexts. Our intention is for the database to distinguish between the contributions of various levels of governance, i.e. R&D funds coming from Federal (U.S./EU), national, sub-national regional sources and to include proxies of changing institutional qualities, particularly for dimensions that can be considered policy variables.

An Illustrative Empirical Exercise: The rates of return to public R&D administered at the regional vs 4. national levels. For the purposes of the empirical exercise we confine our analysis of the database to the European Union and its constituent regions. We therefore construct a multi-level (national/regional) panel dataset, covering 27 countries and over 300 regions, over 20 years. The empirical exercise sets the modest objective of estimating the various rates of return of public R&D investment administered by two distinct levels of governance and drawing relevant comparisons. As far as the national level is concerned, we can capture the influence of public funding and institutional interventions (IPR regime, international openness/connectedness, education system etc.). As far as the regional level is concerned, we can single out the contribution of regionally-administered public R&D funds using a novel indicator of regional autonomy across EU regions. To do so we employ a knowledge production function framework that is common in evaluations of the returns to R&D investment at both the national (e.g. Furman et al., 2002) and the regional levels (e.g. Varga et al., 2010). 5. Potential contribution The empirical exercise will allow us to ascertain the relative efficiency of public R&D expenditures between the national and regional levels within an integrated framework. Our exercise presents a tractable test of Cardwell's Law (Mokyr, 1994), which postulates that political fragmentation may actually be beneficial for technological dynamism. Transposed to the present context, it would predict that regional devolution, especially of applied R&D funds, may prevent coalitions of conservative pressure groups to suppress innovation.

#### Gateway F1

# PROCESS OF COUNTERFACTUAL IMPACT EVALUATION IN THE CZECH REPUBLIC: POSSIBILITIES AND OBSTACLES

#### Oto Potluka, University of Economics Prague, CZECH REPUBLIC

The European Commission represented by both DGs responsible for the Structural Funds – DG Regio and DG Employment is interested in conducting of rigorous evaluation methods represented by the counterfactual impact evaluation. The need for such type of evaluations is also recognized by public authorities due to the increasing public budgets deficits, necessitating implementation of public policies with real impacts. The purpose of our study is to evaluate the possibilities of conducting counterfactual impact evaluation in the Czech Republic stressing the major obstacles in the process. Design/methodology/approach – The paper is based on conducting a counterfactual impact evaluation of the Operational programme Human resources and employment in the Czech Republic. We focused mainly on the support area 1.1, which is oriented on support of companies by financing trainings and development of the personnel systems. Overall, 4580 supported companies were included in the evaluation. We applied regression discontinuity design, instrumental variables and propensity score matching as the main methods for this type of evaluation. In order to circumvent the problem of inappropriate results due to unreliable data, we used two independent data sets for the analysis. First dataset was based on data from the Czech Statistical Office and the second dataset originated from the Albertina database.

Findings –We found that the counterfactual impact evaluation of the Structural Funds assistance in the Czech Republic is possible, albeit with major obstacles. The main obstacles include the inaccessibility of the data for private evaluators. Collecting of large samples is too costly for evaluators. Thus, the evaluation must be conducted in close cooperation with the owner of the data which leads to loss of direct control of the calculations by the evaluators. Combination of existing data collected by the public sector agencies would enable conducting counterfactual impact evaluation on larger scale. The results of the evaluation Practical implications – The paper provides valuable information for conducting of further counterfactual impact evaluation not only in the Czech Republic, but also in other EU countries. There are many data collected by the public sector. Those data are collected for other purpose than counterfactual impact evaluation. Thus, those data are reliable for the purpose of the evaluation as they are not biased due to the knowledge of being evaluated. The main concern about the data is their inadequate accessibility. This is the case especially for the data at the level of individuals (e.g. unemployed people trained in ESF projects). There are several agencies collecting the data; however, those agencies are not allowed to make the data accessible neither to other public agencies nor to private evaluators. Originality/value – The conclusions may be useful for researchers and evaluators interested in studying impacts of EU Cohesion Policy.

#### Gateway O

# EXPLORING THE DYNAMICS OF CHANGING LOCAL ECONOMIC GOVERNANCE STRUCTURES

#### Liz Price, University of Lincoln, UK Will Rossiter, Nottingham Trent University, UK

This paper will explore the impact of the new and emerging local governance structures for economic development in England on the practice of local economic policy and strategy formulation. It will do this by applying the multiple streams framework (Kingdon 1995) to the practice of local/regional economic strategy development under the Regional Development Agencies and the new Local Enterprise Partnerships (LEPs). Following the abolition of Regional Development Agencies (RDAs) by the newly elected Conservative-Liberal Democrat government in 2010, LEPs were introduced to drive economic development at a local level. LEPs offer the potential for new approaches to be introduced but, without statutory funding, their level of resource is limited. This leaves their leaders having to develop effective strategies within a context of shrinking public finances and therefore being expected to lever in private finance to achieve their aims (Liddle, 2011). The change from RDAs to LEPs has seen a shift towards 'public enablers' rather than 'public servants' (Local Government Association, 2009). This has led to growing interest in the role of leadership in regional policy across a range of spatial scales (Collinge & Gibney, 2010; Jessop, 2011). The multiple streams framework is more usually applied to the analysis of national policy development. However, it is the contention of this paper that its focus on understanding the process of policy decision-making under conditions of ambiguity (Zahariadis 2007, Feldman 1989) makes it particularly useful as a lens through which to view the early experience of LEP strategy development. The authors will use the multiple streams framework to identify ways in which LEPs may be able to enhance their policy capacity in relation to local economic development - playing particular attention to the role of evidence and analysis in the strategy development process and the importance of feedback from previous programs (Zahariadis 2007). In this context, the paper will explore the role of the policy entrepreneur' and consider which LEP participants (public or private sector) are emerging to fill this role in the new landscape of local economic development in England. The ability to marshal evidence and use feedback from previous experience is central to the identification of both policy problems and potential solutions (two of Kingdon's streams). It may also be a crucial determinant of the policy entrepreneur's ability to negotiate the third stream - politics - so engineering the 'coupling' of the three streams in a policy window that allows a change in policy to be successfully effected. In addressing these issues, the authors will draw on direct experience of participating in both RDA and LEP strategy development in an English Region. The findings will provide insight into the dynamics of the changing local policy infrastructure, and will identify good practice for enhancing policy capacity within the new economic governance structures created by LEPs.

# Gateway G GOVERNANCE OF URBAN NETWORKS AND TRANSPORT CORRIDORS

#### Hugo Priemus, Delft University of Technology, NETHERLANDS

In recent publications the expectation is formulated and underpinned that the dominant urban pattern of the future in Europe will be the polynuclear urban region. In that pattern urban areas and infrastructure networks are strongly interrelated. A consistent development of city networks is needed on different geographical scales to guarantee an excellent accessibility of urban areas. One of the possible negative agglomeration effects in urban areas is an increasing congestion, in combination with a decreasing environmental quality. Positive agglomeration effects are promoted by an improved physical and digital accessibility of urban areas, strengthening the economic productivity of cities. This paper demonstrates how urban networks and transport corridors can be governed to promote the synergy between urban networks and transport corridors.

Gateway B

### ASSESSING THE CLIMATE CHANGE FITNESS OF SPATIAL PLANNING

# Marco Puetz, Swiss Federal Institute for Forest, Snow and Landscape Research WSL, SWITZERLAND Sylvia Kruse, Swiss Federal Institute for Forest, Snow and Landscape Research WSL, SWITZERLAND

Climate change and its impacts strongly affect land use and land use development. In its Green Paper "Adaptation to climate change in Europe - options for EU action" the European Commission points out the potential of spatial planning to define cost-effective adaptation measures to adapt to the impacts of climate change and emphasizes its "key role for awareness-raising among the public, decision makers and professionals as well as for triggering a more proactive approach at all levels". The goal of the paper is to tackle the question whether spatial planning is fit for the challenges posed by climate change, and how spatial planning and spatial development can be made climate-proof. We propose guidance for planners to assess the climate change fitness of spatial planning. This guidance was developed in the project CLISP - Climate Change Adaptation by Spatial Planning in the Alpine Space within the framework of the European Territorial Cooperation Alpine Space Programme 2007-2013. The guidance offers a practical step-by-step assessment of the climate change fitness of spatial planning. Core elements of the guidance have been successfully field-tested and applied in the CLISP model regions during the project. The paper focuses on the conceptual framework of the assessment and illustrates the application of the guidance with case studies from the Alpine countries. The guidance provides a framework for a climate change fitness assessment of spatial planning in a transnational context that shall be generally applicable to different territorial levels within the different spatial planning systems in the Alpine countries. The concept of the guidance references to the UKCIP Adaptation Wizard. The guidance focuses on the regional context of climate change adaptation and on the responses of spatial planning to climate change. The guidance offers a step-by-step, user-friendly self-assessment and aims at supporting and facilitating crosscutting climate change adaptation processes as well as the identification of adaptation strategies and specific measures with regard to spatial planning policies and instruments. The climate change fitness assessment is based on 5 rationales: A spatial planning policy or instrument is fit for climate adaptation, (a) if regional adaptation challenges are addressed; (b) if decision making processes are well connected and coordinated across different levels and policy fields or sectors; (c) if the shared benefits of linking adaptation to mitigation and regional development are achieved; (d) if adaptive capacity is high and/or increasing; (e) if a sound system of monitoring regional climate change impacts or risks is in place (with particular reference to spatial planning). The results of the assessment and the experience of having gone through the procedure will provide a valuable basis for developing climate adaptation strategies and measures.

Gateway K

# THE ROLE OF NON-METROPOLITAN HIGHER EDUCATIONAL INSTITUTIONS IN DEVELOPING LOCAL INNOVATION NETWORKS

#### Garri Raagmaa, University of Tartu, ESTONIA

The aim of the paper will be to analyse the role of non-metropolitan higher educational institutions (HEI) in the framework of the Regional Innovation System (RIS) as pipelines of global knowledge as well as generators of

internal know-how and innovative networks in parallel with other regional knowledge transfer institutions: R&D units, business advisory services (BAS) and their interaction with local/regional authorities and business organizations. There are two controversial opinions about HEIs outside old university centres: first that this is just waste of resources and another one that regional economy needs desperately HEIs for economic restructuring and maintaining it's competitiveness. Nordic experience has proved that HEIs may be important drivers pushing forward regional development, since a regional centre with a university is better off in respect of occupational and demographic development. Thus, we have good reason to study Estonian non-metropolitan HEIs, which have exists only 10-15 years, and their impact to regional innovative milieu. Wider European and also Estonian results show that investment to the R&D does not guarantee innovation and development of the regions. Geography matters: knowledge and new values take roots in close interaction of people not that much between official institutions. But where is the reasonable dividing line on the geographical scale? 1990s transition period, over 70 new HEI units: universities, colleges, branches and the like were set up in Estonia (all population only 1.35 million people) outside traditional university campuses. Most of them have been closed or amalgamated with more viable units for now. Seven university colleges and few vocational schools that deliver also higher educational courses can be currently found in most county centres. The question is whether these HEIs study lines and research activities support (traditional) regional specialization and whether the local business community sees the benefits from these HEIs? Which and in what capacity knowledge is transferred via local HEIs to the region and what kind and what amount of knowledge is produced locally? Therefore we have to analyse local buzz - networking: what institutional agreements and personal contacts have HEIs with local stakeholders and in what capacity these HEIs participate in local strategy making and projects? Are teachers/researchers locally embedded or just behave like "travellers"? First we analyse statistically regions' development and economic structure using commercial register data. Secondly we analyse HEIs factual activity interviewing face-to face leaders of HEIs and RIS institutions and broader ring of local stakeholders. Hypothetically, more locally embedded HEIs should have contributed to local key-clusters and we should witness considerably more active networking.

# Gateway C HOUSING SEARCH PATTERNS IN THE UK: NEW INSIGHTS FROM A UNIQUE DATASET

#### Alasdair Rae, University of Sheffield, UK

One significant methodological problem in the analysis of housing markets is the issue of housing search behaviour and the difficulty of identifying precisely how and where people search. Understanding the geography of housing market search is, of course, a key concern to policy makers and academics but the extent to which we understand the functional geography of housing markets is limited and this can have serious implications when it comes to strategic planning. The question of defining local housing markets has long been the subject of scrutiny (e.g. Maclennan et al, 1990; Watkins, 1998; Jones, 2002; Brown and Hincks, 2008) but a common thread running through such work is, perhaps, a degree of frustration with the limited data available in the UK context (and also within other nations). Thus, we can define market areas based on where people move to by examining actual migration patterns (i.e. effective demand) but this may not closely match where people wanted to move to or where they searched. We may want to first understand where people search for housing, but typically this kind of data is not available. This paper is therefore based on the exploratory analysis of a large, unique housing search database for the UK which illustrates precisely where people search for housing. This housing search database contains several hundred thousand unique search entries which have been drawn on top of a Google map layer and then exported and analysed in a GIS. Analysis of this dataset does not solve the housing market search conundrum, but it does offer some fascinating new insights into housing search behaviour in terms of the geography, intensity and variability of search in the UK

Gateway K2

## THE ROLE OF LEADING FIRMS IN THE EVOLUTION OF SMES CLUSTERS: EVIDENCE FROM THE LEATHER PRODUCTS CLUSTER IN FLORENCE

#### Filippo Randelli, University of Florence, ITALY

Clusters that emerged in the past have changed over time, so that today the research challenge in economic geography is on their evolution over time. If the attention moves from patterns of clustering to the evolution of

spatial agglomeration, than the "Porter diamond" and the vast literature focused on the advantage of clustering cannot be helpful. Many evolutionary studies on cluster have been based on the idea of cluster life cycle. In the cluster life cycle model, the pattern of spatial clustering coevolves with three entities: with the firm at the microlevel, with the industry at the macro-level, and with the network that describes the patterns of interaction among firms of the industry. The aim of this paper is to update on the evolutionary path of SMEs Italian clusters, which faced with the economic crisis are undergoing a process of decline in the number of firms. In this context, some leading firm, able to connect local resources (and firms) to global networks, have emerged over time. We argue that within SMEs clusters, the leading firms might act as a gatekeeper, linking local networks to global markets. The focus will be on local networks interacting with leading firms and particular attention will be devoted to the pattern of co-evolution and to the geographical dimension of this co-evolutionary process. To empirically verify if others firms in the cluster may co-evolve with the leading firm over time, a deep analysis of the Gucci network in the leather products cluster in Florence will be carried out. The Gucci network has a particular structure and the key feature is the role of several specialised technicians, usually recruited in the local small firms, that jumping from one firm to another "pollinate" the network with smart solutions to daily process hitches. These interrelations are basically face-to-face and the geographical proximity matters, so as to enhance connectivity and an intense knowledge spillover. The technicians also allow to the leading firm to establish trustful linkages with suppliers and make serious efforts with the aim of creating stable networks of selected partners so to foster the learning process in the network. The results of our interviews also suggest that to be in the leader network is not sufficient and the co-evolution depends also on the asymmetric absorptive capacity of cluster firms. The successful path of 10 Gucci spinoffs, point out the role of leading firm in the evolution of the cluster. The spinoffs mechanisms are quite clear in the industry life cycle although the precise nature of spinoffs inheritance, is still an open question. Further researches on spinoffs inheritance are needed, and of course data sets able to trace the genealogy of every firm. Our study might have policy implications. The findings discussed in the paper suggest that the geographical proximity itself doesn't eliminate the cognitive distance among firms, which can be a barrier to the cluster evolution. Within the Gucci network the key feature in developing the cognitive proximity are the specialised technicians, which they act as soft infrastructure, fostering the mutual trust and the circulation of knowledge. Policymakers have a tendency to promote hard infrastructure or supporting firms with funding projects, but this paper would suggest that smart innovation policies should try to develop soft infrastructure (Benner, 2003), able to improve connectivity among cluster firm. To conclude, although further research is necessary, the advantages of networking, particularly within SMEs cluster, seems to be clear. The main problem within SMEs clusters is that the massive disintegration of stand alone firms doesn't allow them to reach a critical mass in terms of marketing, finance and R&D. In this paper we have shown as a leading firm, due to a dominant position and a "hub-and-spoke" organization, may increase the connectivity within cluster firms, so as to reduce cluster uncertainty and avoiding negative lock-in. The future challenge of SMEs clusters seems to be networking, not necessarily around a "hub", in order to:

- (i) share the same innovation processes so as to foster knowledge spillover,
- (ii) offer on a global market a full range of specialised output within a single brand,
- (iii) (iii) reach a critical mass in terms of financial power.

# Gateway L1 THINKING CLUSTERING BEYOND PROXIMITY

#### Stephen Read, Delft University of Technology, NETHERLANDS

This contribution will look again at forms of human territories like cities, regions and clusters through the relational thinking of Hannah Arendt and Henri Lefebvre as modified by hermeneutical philosophies of science and technology. The relational forms I articulate point away from ideas of centrality or agglomeration as the concentration of material or value on a simple surface defined in Euclidian geometry and distance and towards layerings of discrete territorial forms characterised as distributions of places and objects. These forms are, following Lefebvre, at the same time political and historically evolved; they are normative and together constitute the structure of our public environment. They construct distinct scales, are the foundation of translocal knowledge and mediate action at a distance. Their purpose is to construct territories in understanding as well as in situ. It is a property of these forms that they are technological - not simply in the sense that they incorporate technologies but that they are themselves formed to human action while mediating it. I replace a metageography that understands urban, regional and global processes as 'flows' over an underlying surface - or one which understands space times as surfaces capable of 'compression' - with a multiplicity of discrete network spaces in which spatial processes are enacted. These spaces are all material, all technological, but do not need to be

subjugated to any metageography but the one they construct in their own techniques, 'design' and organisation. They are concrete territorial affordances and are appropriated by various interests. These forms are implicated in 'live' centrality or 'productivity' through the way they articulate with one another. They organise processes and relate people, institutions and resources at different scales, organising productive processes at one scale for example and articulating them with opportunities and markets at another. Much of the relationality involves no direct relations at all but distributions of objects as constructions of 'worlds between men' in which action can take place and make sense. The basic forms comprise these second order links that organise 'public realms' which are increasingly secured and whose 'publics' are skewed to particular interests. Much of the form we find in urban and regional constructions exists at the level of articulations between these basic forms where the 'live' centrality of cities - their productivity - may be found. These 'live' centralities exist in particular forms given by the particular spaces they articulate. The organisational factors that are commonly conflated with proximity and distance may acquire in this view more precise urban forms and I will give some examples of these. This different way of understanding urban and regional form and the forms of clustering and centrality contributes positively to understanding of clustering and spatial and policy aspects of clustering. It will contribute to our practice of urban and regional design in ways that incorporate the spatialities and productivities of clustering.

#### Gateway G

### MAPPING THE `SPACE OF FLOWS': THE GEOGRAPHY OF GLOBAL BUSINESS TELECOMMUNICATIONS AND EMPLOYMENT SPECIALISATION IN THE LONDON MEGA-CITY REGION

#### Jonathan Reades, UCL Centre For Advanced Spatial Analysis, UK Duncan Smith, UCL Centre For Advanced Spatial Analysis, UK

Over the past forty years, telecommunications has radically reshaped the way that firms organise industrial activity and coordinate production on a global scale. And yet, because exploring the impact of the technologies that underpin this transformation entails the analysis of massive - and massively sensitive - data sets, fourteen years after the publication of The Rise of the Network Society (Castells, 1996 [2000]) the corporate `space of flows' remains largely unmapped. So although there has been an explosion of work on the role of international linkages in agglomerations (cf. Bramwell et al., 2008; Wink, 2008), the principal source of data has been through local interviews or economic modelling. However, thanks to advances in hardware, software, and analytical techniques, we are now able to turn to the techniques of an emerging `computational social science' (Lazer et al., 2009) and actual firm behaviour so as to begin to draw out the implications of digital communications for the future of urban and regional systems. In this article, we combine detailed employment and telecoms usage data for the southeast of England to build a sector-by-sector profile of globalisation at the city-region scale. The intersection of small area employment data with a behavioural data set based on more than eight billion phone calls allows us to approach mega city-region industrial geography in a new way. What emerges is a complex portrait of geographical competition and complementarity across the entire region - highvalue and high-skill work is widely distributed and the presence of multi-nationals in secondary and tertiary centres is obvious. We argue that this corporate ecology can be best understood with reference to the trades between face-to-face interaction amongst highly-skilled workers, access to key travel infrastructure, and agglomeration benefits. Our findings suggest that the balance between these factors varies considerably from sector to sector, producing distinct regional subgeographies that account for the polycentricity observed in Hall and Pain's POLYNET study

#### Gateway N MUNICIPAL FM - PLANNERS MANAGING FACILITIES

### Alexander Redlein, Vienna University of Technology AUSTRIA Thomas Dillinger, Vienna University of Technology AUSTRIA Michael Getzner, Vienna University of Technology AUSTRIA

To support transparency, accountability and legitimacy of decision-making Urban and Regional Development Planning methods have to adapt. The methods have to be able to cover the new environmental, economic and political challenges. Especially limited economic resources of many municipalities prevent to bring "Planning on the ground". This paper builds on the hypothesis that if Facility Management is incorporated already at an early phase of the planning process, the effectiveness of planning outcomes can be enhanced drastically and better cover the new challenges. In general, all private, business and public organization use buildings, assets, infrastructure and services to support their primary activities. By coordinating these infrastructure and services, by using management skills and by handling many changes in the organizations environment, Facility Management influences its ability, to act proactively and provides all necessary needs. This is done also to optimize the costs and performance of infrastructure and services (EN15221 page 4). The main tasks of FM include defining the demand, sourcing the demand and controlling the provision. This is done continuously to take into consideration changes in the primary processes. Therefore Facility Management is an integrated process to support and improve the effectiveness of the primary activities of an organisation by the management and delivery of agreed support services for the appropriate environment that is needed to achieve its changing objectives (see (En15221 page 5) The innovative inter-disciplinary planning method introduced here builds on the results of several case studies, where the shortcomings of local planning processes where examined in detail. Through the active involvement of different local and regional stakeholders as well as experts in the field of spatial planning and facility management the concept of Municipal Facility Management was developed and is currently implemented for the first time in a community north of Vienna. The innovative aspect of the whole endeavour clearly lies in the bringing together and combining of methods and approaches deriving from spatial planning with those from facility management. The Municipal Facility Management concept consists of the following steps:

1. Examination of the current situation including the analysis of existing planning processes and results. 2. Drafting of development perspectives through focus group workshops, based on which the future demand for infrastructure and services can be identified. The demand includes not only the infrastructure that is needed for the new development but also the central infrastructure enlargement e.g. new central waste water disposal, new drinking water supply and the services to maintain and operate the infrastructure.

3. Definition and evaluation (including investment, financial options, operations concepts, sourcing of infrastructure development and operation, operations costs) of different scenarios.

For this step a comprehensive database, which the research team has elaborated based on the evidence of several research projects over the last few years, is applied to calculate investment and operational costs. In addition service providers and construction companies are included to figure out new ways and methods of construction and operation in order to lower investment and operational costs. 4. Drafting of a masterplan, as a basis for future spatial planning decisions. But also the organisation of the region/municipal has to be optimised, that it is capable to secure the implementation of the masterplan. Therefore, the internal organisation of the region/urban is analysed and optimised in a way that it is capable to guide and control the planned development. The Municipal Facility Management concept builds on the ambitious idea to consider a spatial entity, e.g. a community as an economic entity. It compares the ecological, social and economic impacts (additional income minus investment and operational costs) in a very early stage and doing so provides effective solutions for optimising the entire internal structure, like a company would evaluate an investment or organisational change. The outcome is not only a masterplan for the development but also an evaluation of the ecological, social and economic impact of the development. These results support transparency, accountability and legitimacy of decision-making. The paper aims to introduce the most actual research findings, from the pilot case study north of Vienna, where the Municipal Facility Management concept is currently tested for the first time.

#### Gateway L2 'NEW HAVEN' RURAL TOURIST SPACES

#### Patricia Rego, University of Evora, PORTUGAL

The health tourism niche (in both its medical and well-being variants) has been growing rapidly and consistently across the world – including in Europe. Portugal is no exception to this trend, as is apparent both in the examples of rehabilitation of thermal tourism facilities in this country and in the growth of supply in this field in both urban (e.g. large number of spas in hotels) and, especially, rural areas. This paper focuses specifically on the innovative initiatives in this field that have been developed in the rural areas of southern Portugal over the course of the last decade. Generally speaking, health tourism makes it possible to combine two important dimensions of well-being: leisure and physical well-being. The demand for healthy longevity and discipline of the body through exercise, diet or meditation is an important element that accounts for the growing importance of this segment of the tourism market. Moreover, this niche makes it possible to anchor tourist practices in the consumption of unique experiences that foster personal transformation and development. It is this combination

of factors that seems to guarantee the success of the initiatives that have been recently developed in southern Portugal. The cases that we present and discuss in this paper constitute a diverse set of tourist products that share the aforementioned features and goals. They consist of farms (an inheritance of the large estates of the past which, up until the 1980s, were used for agriculture) located in the Alentejo region, which typically take advantage of a remarkable landscape - whether 'original' or transformed through the construction of water mirrors, ponds, gardens, waterfalls, etc.. Even in those cases where the landscape has been transformed in order to make it more pleasant, the rural identity is usually preserved through the valorisation of the rural heritage and of the cultural background of the region or place in question. In most of these cases, the health and well-being activities are associated with a gastronomic offer that is based on organic products (which are also highly valued in terms of health) as well as on local products and recipes (providing the experience with a more unique character). However, the most important asset of all in the case of this tourist niche seems to consist of the central role played by nature, the landscape and rurality (preferably with agricultural work and the presence of farm animals) in the design and construction of these new therapeutic areas. These rural areas have thus been undergoing a profound transformation, which has seen them emerge as 'new havens' for both body and soul. In order to understand the profile of supply and especially the strategies that lead to success in this market, it is necessary to understand the criteria and expectations of demand. Thus, above all, this tourist niche seeks to meet the demanding requirements and expectations of urban costumers who wish to spend short holidays or just 'healthy' weekends in settings that combine natural and cultural amenities. Two factors play an especially critical role in making it possible to meet this specific demand: the ease of access from/to metropolitan areas and the proximity to rural centers with a rich cultural heritage.

#### Gateway M1

#### NETWORKING FOR CLUSTERING: IS THE INFRASTRUCTURE RENEWAL ASSOCIATED WITH "LE GRAND PARIS DE L'ESTUAIRE" A LUCK OR A LURE FOR THE HARBOR-CITY OF LE HAVRE?

#### Pascal Ricordel, Normandy University, FRANCE

The clustering policy for improving the GNP by attracting Foreign Direct Investment has led in France to the decision to create a new urban agglomeration area named « Le Grand Paris ». Aiming at Paris agglomeration area to compete with world class hub cities like London, New York, Tokyo, Seoul, Shanghai and on, this clustering policy lies on transport infrastructure projects. The Greater Paris will be endowed with an urban automatic fast train network for clustering several highly competitive areas identified as « Zones d'excellence », there will be also a reshaping of the multimodal infrastructure along the Seine River and around Paris area named "the gateway" project, and, last there will be a fast train linking Paris to the harbor-city of Le Havre for Le Havre to become « Le grand Paris de l'estuaire ». This urban clustering policy is closely tied with networking : firstly it lies on the transport infrastructure networking for enhancing positive agglomeration externalities and turn the Paris area into a more attractive high value-added productive territory, secondly it lies on residential infrastructure networking for getting in settlement of high income people in every part of the territory and thirdly it aims at fostering an endogenous process of institutional networking based on territorial proximities between private firms and public organizations that according to the cluster approach should lead to increase territories comparative advantage. However, academic and empirical literature states that networking is a very questionable issue: transport infrastructure project leads to the greatest misjudgement (Didier and Prudhomme, 2007), infrastructure networking development includes a disruption and dependence process badly integrated by public decider (Dupuy, 2011). If a consensus has emerged for considering agglomeration externalities associated with networking as key factors in urban development (Krugman, 1995), the creative process of those externalities are very unclear, some stressing on the role of social amenities (Glaeser, Gottlieb, 2008), knowledge spillovers (Black and Henderson, 1999), firm heterogenity (shaver and flyer, 2000), territorial integration (Colletis and Pecqueur, 1993; Zimmerman, 1998), finally suggesting that territorial attractiveness can't be easily acquired by a public policy (friboulet, 2010). So the cluster policy raises question about cities that have committed in urban infrastructure transition. That the case of the harbor-city of Le Havre that is under a huge pace of infrastructure renewal associated with "le grand Paris de l'estuaire" project. Endowed with a new modernized and container specialized harbor, a large range of financial public and private partners have committed huge amount of money on infrastructure projects such as a new tram network, a new stadium, a new leisure-boat harbor, an international Centre for the Sea and Sustainable Development, a first cycle of Asian political science studies by the "Institut d'études politiques" and so on. Undoubtedly, the challenge of "the grand Paris de l'estuaire" brought good looking expectation from investor. However, a closer look at the "glocal" city pattern shows a significant shift between the real pattern and the expected one (Bassouamina and

Ricordel, 2011); that raises the question of transition in cities pattern lying on transport and residential infrastructure. More precisely, is the infrastructure renewal associated with the Greater Paris and its side cluster Projects are a luck or a lure for the harbor-city? The Asymmetry between Paris and Le Havre may induce dependence of the smallest territory and a winner-looser configuration? The Harbor-city infrastructure policy is productive and residential attractiveness oriented, but the development of a productive networking in an industrial harbor might have negative effect on the residential settlement. Last, how to assess the French cluster policy and its "glocal" impact? Our paper is dealing with those different issues. In a first part, after shortly presenting the cluster policy associated with the greater Paris and its implication on the Harbor-city of Le Havre, we make a special point on the cluster and networking rational. Every great territorial theory stress on networking for policy guidelines: the New Economic Geography (Krugman, 1991) stress on transport networking, Cluster approach (Porter, 1998) stress on institutional networking and Base's theory (Davezies, 2010) stress on residential networking. In a second part, we focus on the harbor-city of Le Havre area to show the urban infrastructure transition challenge associated with the cluster of "Le Grand Paris de l'estuaire". We claim that the policy process is in line with the theory guidelines but the shift in the "glocal" pattern is so important for a medium size-city than the challenge may be out of reach given that some conflicts may exist in networking. In the last part, we present benchmarks relied on interplay network dynamics that allow us to assess the French clustering policy. Those benchmarks, all derived from the main territorial theories are the determinants of a model applied to a railway station central area. We claim that the model aiming at assess networking with clustering effects is overall enough to be replicated everywhere a territory is concerned by the clustering policy.

#### Gateway K1 COMMUNITY AND THE SPATIALLY DISTRIBUTED PRODUCTION OF KNOWLEDGE

#### Joanne Roberts, Northumbria University, UK

Recent years have witnessed a turn to community within management literature and practice as a means of managing tacit knowledge and as a facilitator of creativity and innovation (Amin and Roberts, 2008). Moreover, the role of communities in the process of learning and knowledge generation has attracted much attention in the context of intra and inter organizational knowledge transfer (Cohendet, and Llerena, 2003; Amin and Cohendet, 2004; Amin and Roberts, 2008; Roberts, 2010a inter alia.). In particular, communities of practice have been identified as mechanisms through which knowledge is held, transferred, and created (Brown and Duguid, 1991; Lave and Wenger, 1991; Wenger, 1998, 2000). Initially influential within the management field, the communities of practice approach has extended its reach as an analytical framework and is increasingly applied to investigate urban, regional, national and transnational learning and innovation networks (Coe and Benner, 2003; Benner, 2003; Cohendet and Simon, 2008; Faulconbridge, 2010; inter alia). The importance of community to the operation of economic activity has been recognized by the growing academic literature on social capital (Adler and Kwon, 2007; Bowles and Gintis, 2002; Putnam, 2000; Field, 2008). Through the provision of social infrastructure, including trust and reputation, communities underpin the economic contracts on which commercial market activities depend. Indeed, Adler (2001), proposes community as a third organizational form alongside markets and hierarchy, arguing that with its reliance on trust as its key coordination mechanism, rather than price in the market and authority in the hierarchy, community has a stronger capacity to effectively manage knowledge assets. Consequently, an increasing number of researchers point to the growing significance of community-based innovation and knowledge production in advanced countries (Benkler, 2006; Leadbeater, 2007; Shirky, 2008; Roberts, 2010b; inter alia). Certainly, the wealth of non-commercial creative activity taking place in community projects and social networking forums, facilitated by commercial platforms like Facebook, YouTube and MySpace, is being absorbed into corporate innovation and marketing strategies. This is because social interaction, whether in proximate or distanciated communities, is a powerful source of creative stimulus that can be harnessed to underpin commercial innovative activity (Leadbeater, 2007). Tapping into communities is increasingly seen as a means through which commercial businesses can harness social resources, including creativity, within and between organizations in a wide variety of intra and inter organizational contexts at regional, national and international scales (Amin and Roberts 2008). For instance, businesses from IBM to Nokia are engaged with community activities including lead-user and Open Source Software (OSS) communities (von Hippel and von Krogh, 2003; Jeppesen and Frederiksen 2006; Prandelli, Verona and Raccagni, 2006; inter alia). This paper examines community from the perspective of the spatially distributed production of knowledge, and, in particular, online communities producing freely available digital outputs. It argues that an appreciation of the social dynamics of knowledge production in online communities has yet to be fully achieved. The paper begins by defining community. The characteristics and

creative potential of communities will be examined through the typology of knowing in action presented by Amin and Roberts (2008). Evidence from online communities producing freely available digital outputs is then considered with a view to identifying the characteristics of their knowledge production activity. This activity is explored as an alternative to the traditional commercial-based cross border innovation and knowledge producing activity occurring through, for instance, multinational corporations, international joint ventures and strategic alliances. Evidence from the cases of Mozilla and Wikipedia will be employed to illustrate the spatially distributed nature of the innovative and knowledge producing capacities of such communities. The paper will conclude by reflecting on the challenges that online community creativity present to traditional approaches to understanding the spatial distribution of innovation. Moreover, consideration will be given to the insights that the cases examined offer to understandings of the social dynamics of innovation networks.

#### Gateway O

# BAVARIAN PERIPHERAL REGIONS IN THE SEARCH OF ANSWERS TO ECONOMIC AND DEMOGRAPHIC CHALLENGES

#### Ekaterina Romanova, Moscow State Lomonosov University, RUSSIA

According to the concept of the "Second demographic transition" introduced by Ron Lesthaeghe and Dirk van de Kaa in 1986, the European countries experience continuous increase in lifetime and connected with it population aging as well as population decline. These trends are especially strong in Germany compare to other OECD-countries. They can dramatically impact economic development of a country. According to issued in 2011 Federal labour agency report: "About demographic situation and the future development of Germany", between 2010 and 2025 the number of able-bodied population will decrease by 6,5 Mill. leading to approximately 38 Mill. in total if counteracting measures will not be undertaken. The problem of shortage of skilled workers especially with exact science and engineering degrees has already emerged in several regions. According to the report of the Institute of German economy in Cologne in October 2011 there was a shortage of about 200 thousands scientists, engineers and IT-specialists. The influence of demographic transition surfaces differently in central and peripheral regions: processes of growth and shrinkage develop simultaneously and often in territorially close regions. Both the internal migration and the level of economic development of regions are becoming decisive factors apart from population decrease. South Germany is one of the most dynamically developing regions in the country. However, peripheral territories of Bavaria are faced with problems typical for less developed regions too. A detailed analysis of Bavarian regional innovation policy against underdeveloped regions has shown that the stimulation of innovation development and cooperation between science and business, creation of so called innovative clusters, bust both the regional economic development and the dynamics of population size. Experience of Bavarian state innovation policy in establishing universities of applied science can be highly appraised especially in its influence on development of innovation potentials of less developed regions. The dean of economic engineering faculty at the University of Applied Science in Amberg – Weiden/ in the Oberpfalz/ told me in a private interview : "I was born and went to the school here in Weiden, but as many of my classmates, once I finished a school, I moved to one of German's cities. When the university was founded in Weiden, I came back. Today there are only three of my former classmates here. Nowadays many of graduated students can find jobs in local companies which have close relations with the university. They literately are hunting for the talented heads. Since our university was founded only ten years ago, it is developing very dynamically and young specialists choose to stay increasingly more often". However one of the main problems of local enterprises is still the shortage of skilled workers. The efficient logistic and social infrastructure is another important factor in firm localization. Programs supporting a share of regional structural funds of EU considerably contribute to the economic stimulation of less developed regions. Therefore, the most important tools are support of small and medium enterprises, infrastructure projects, like the broadband digital communication in Bavaria. Both the development of cultural-entertaining services as well as hotel and restaurant business in rural regions and country tourism play a prominent role in the economic development of peripheral regions. In terms of globalization the business internationalization, including transboundary cooperation, is one of the most important strategies for keeping enterprises' competitiveness not only for large companies, but also for small ones. At the same time, the employers are in competition with each other not only in the national borders, but worldwide. The analysis of efficient innovative projects in the peripheral regions of Bavaria is valuable experience applicable to other regions and countries including Russia.

#### Gateway K1

## INSTITUTIONS, SOCIAL NETWORKS AND COGNITIVE FRAMES: MICRO-FOUNDATIONS OF INNOVATIONS

#### Borut Roncevic, School of Advanced Social Studies, SLOVENIA Nadja Damij, School of Advanced Social Studies, SLOVENIA

The most efficient way for any organisation, region or nation to adjust successfully to immense challenges posed by the global environment and to participate successfully in the international division of labour is by enhancing its innovative performance. Their success or failure of social settings essentially depends on topography of their social fields, being more or less conducive to continuous innovations. Although we can observe clear geographical patterns in distribution of innovative performance, it is important to note that this distribution is not determined by geographic or similar factors, but is culturally, socially and politically established. This is not only a theoretical assumption, but is an axiom on which we can develop analytical tools for the analysis of systems of innovation and can also be a basis for purposeful action. Variety of social forces, especially institutions, social networks and cognitive frames have in the past been repeatedly confirmed as relevant in determining the rich variety of economic outcomes, from competitiveness of economies, formation of prices, levels of inward foreign direct investments, access to labour market, economic success of different social groups etc. These three forces and their ever changing constellations are forming the relational topography of social fields, making them more or less conducive to innovations. Social fields of innovations are therefore continuously structured by social forces that increase stability in social interaction. How do social forces shape specific social fields of innovation? First, institutions exert their influence by limiting the scope of actions, encouraging some and discouraging others. For example, governmental intervention for establishing new firms and generating spin-offs, support services for innovations, networks of technology parks and technology transfer entities, or top-quality universities is generally supportive to adapting to global trends by generating high innovation performance. Secondly, social networks position individuals and collectives in the social space thus limiting ties with specific nodes and encouraging others. In functioning systems of innovation we can identify high levels of university-industry cooperation, inter- and intra-regional cooperation of producers with customers, and mutual trust. Social networks are lubricating; project-based organizations thus resulting in higher innovative performances. Third, cognitive frames provide the necessary mental tool-kit which allows interpreting relevant strategies such as introduction and nurturing of firm-based innovation systems, absorption of new knowledge and expenditure for research and technological development. These interpretations are highly relevant because in complex environments we cannot foresee all possible combinations and formalize them as rules. These scripts contribute to the desired structuring of social fields by suggesting social action in spite of uncertainty of outcome.

#### Gateway B1

#### EFFECTS OF LAND POLICY ON HYBRID RURAL-URBAN DEVELOPMENT PATTERNS AND RESILIENCE: A CASE STUDY OF THE TERRITORIAL DEVELOPMENT IN THE BANGKOK METROPOLITAN REGION

#### Suwanna Rongwiriyaphanich, Delft University of Technology, NETHERLANDS

This article illustrates the relationship between land policy, the shaping of hybrid rural-urban development patterns, as well as their effects on resilience enhancement in the specific context of Thailand. The article aims to provide a better understanding about potential impacts of land policy on resilience enhancement of urban systems to planners and policy makers. This issue is important because the concept of resilience has recently been the focus of various disciplines, including spatial planning. It is considered an essential quality for urban systems for coping with recent territorial development challenges in a world of rapid transformations. The term 'resilience' in this context refers to the capacity of an urban system to absorb and deal with undesired disturbances and reorganise while undergoing change so as to still retain essentially the same functions, structure, identity and feedbacks (Folke et al. 2005). Folke et al. (2002) argue that a fundamental quality necessary to create resilience is the diversity of species, human opportunity and economic options that maintains and encourages both adaptation and learning processes. According to the above definition of resilience, hybrid rural-urban development patterns, which feature a diversity of qualities, are likely and argued in this article to enhance resilience of urban systems. The term 'hybrid rural-urban development pattern' refers to a specific form of urbanisation in Southeast Asian cities observed by McGee (1991) that expresses the blend of country and city, where agricultural and non-agricultural activities coexist in close proximity to large urban centres. This

specific development pattern takes place also in the Bangkok Metropolitan Region (BMR), yet with distinctive characteristics in different parts of the region. One of the arguments this article advances is that these different characteristics of the hybrid rural-urban development patterns contribute to different degrees of resilience in the area. Rigg (1995) argued that the spatial development patterns of Bangkok are shaped by the pattern of land sales by rural owners and speculators rather than any planned logic. This article argues that it is rather the land policy applied in the region, as a result of societal changes brought by the modernisation of the country, that shapes the spatial development patterns of the BMR. The article investigates the impacts of various land policy on the shaping of hybrid rural-urban development patterns and their effects on resilience enhancement in the specific context of Thailand. The investigation focuses on two selected areas in the BMR, namely Khlongluang and Western-nonthaburi. Both areas are associated with hybrid rural-urban development patterns, yet with distinctive spatial characteristics resulting from different development policies applied to each area, especially during their reclamation period. This aims to provide planners and policy makers with a better understanding about potential impacts of land policy on resilience enhancement of urban systems. The comparison of the spatial development patterns in the two selected areas is based on four sets of characteristics, which are (i) land tenure - in terms of land ownership and landholding size, (ii) patterns of mixed-use - in terms of function, scale and level of diversity, (iii) human-nature interaction and independency and (iv) speed of change. The four sets of characteristics are connected to three parameters that are employed to assess the degree of resilience. They are (i) absorbability and retaining capability - relating to degree of diversity of the system, (ii) learning capacity - relating to degree of human-nature interaction and independency and (iii) adaptive capacity - relating to speed of change and degree of diversity of the system. The article is divided into four sections. The first section addresses three periods of development in the BMR from 1782 to 2010 with distinctive territorial development policies, describing also the underpinning social and economic conditions. In the second section, the hybrid rural-urban development patterns in the two selected areas are compared. The comparison focuses on investigating the impacts of different policies applied to each area on the spatial transformation of the areas. The third section examines the effects on resilience enhancement created by different spatial characteristics in the two selected areas. The concluding section summarises the observations and remarks on the effects of land policy on resilience enhancement in the context of the specific Thai societal framework. Preliminary results show that the customary land policy, which encourages small-landholdings with civic-led and area-based approach, is likely to bring more positive impacts regarding resilience enhancement to the urban system than the modernised scheme, which promotes large-landholdings with state-led and sector-based management approaches. This is because the hybrid rural-urban development patterns resulting from the customary land policy tend to generate a better environment to cope with the change, which prevents the urban system to shift to undesired stages. This is by enhancing the capability of the urban system to absorb disturbances and to retain essential conditions while undergoing changes, as well as to learn and to adapt to the changes.

#### Gateway K1

# TERRITORIAL INNOVATION MODELS BEYOND THE LEARNING REGIONS TOWARDS UNDERSTANDING THE SOCIAL DYNAMICS OF INNOVATION NETWORKS

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This paper is concerned with theories of territorial economic development in the knowledge based economy, and in particular those concerned with understanding the dynamics of innovation as an economic development process. There has recently been a growing disquiet about the various models used to explain these processes, the so-called Territorial Innovation models, focusing on their narrow regional focus, their orientation towards political rather than economic territories, their uncritical adoption to explain many regional situations and their limited empirical testing. Nevertheless, TIMs have retained a salience and acceptance because they do seek to explain and understand a phenomenon of uneven regional territorial development for which explanations arising in other disciplines are fundamentally unsatisfying. Therefore, addressing these critiques is a central challenge for regional studies, to resolve these tensions and produce more conceptually rigorous and empirically underpinned theories of regional economic change. To take a first step on this journey, in this paper, we address ourselves to a single Territorial Innovation Model, that of the Learning Region, which appears to have reached the end of its intellectual evolution. The framework for our analysis follows our diagnosis of the problem, namely that despite these theoretical shortcomings, the idea has emerged because it captures something useful that is not captured elsewhere, in this case, the notion of territorialised collective learning. We therefore use the general TIM critique to develop a more detailed critique of Learning Regions to identify where further

theoretical analysis is required. We argue that the most urgent and demanding understanding is required of the social dynamics of (partly-territorialised) innovation networks. Taking a global-local perspective on the dynamics by which innovation networks create new knowledge and stimulate innovation should help to produce a more rounded and intellectually rigorous model of territorialised regional learning in the context of the knowledge-based economy.

#### Gateway G2 DISCRETE LANDSCAPES IN METROPOLITAN LISBON

#### João Rafael Santos, Technical University of Lisbon, PORTUGAL

The article explores emerging urban and landscape strategies in metropolitan Lisbon, resorting to open space and discrete forms of intervention. Standing on a specific context shaped by the Tagus estuary and its deep trenches, the southern bank municipalities of Barreiro and Moita offer the opportunity to discuss open space as the lens both for renewed morphological interpretation and for alternative planning strategies. Previous research pinpointed relevant transformations in the Tagus river southern bank, where infrastructure and industry became the drivers of metropolitan integration. Water was acknowledged as the shaper of a rustic matrix of land occupation along its edges, streams and intertidal structures. Open space played a key role in establishing the pattern of urban settlement and, later on, in the artificial production of infrastructure landfills for port and industrial development. After almost three decades of de-industrialization processes, urban policy has been targeted at the public space and landscape improvements, specifically in water/land edges and interfaces. In contrast to Lisbon's large scale urban regeneration operations such as the Expo 98, some of the Tagus south bank municipalities (namely Barreiro and Moita) are exploring small scale and discrete interventions in environmentally sensitive areas, claiming a renewed approach to landscape in metropolitan territories. Agricultural production, social facilities and quality public space are approached from a designed perspective and integrated into larger structures of metropolitan ecological networks. Although discrete in scale and intervention, a number of sites have been and are being assembled as continuous lines of open space, acting as integrators of diverse urban, former industrial and peri-urban fabrics. The article is structured according to the following points:

- A brief morphogenic outline of Tagus south bank territory, and of its integration in metropolitan Lisbon;

- A discussion of the planning background, acknowledging a transition in the way how open space is integrated in various scales of urban and territorial planning – regional/metropolitan (such as the Lisbon's Regional Plan, currently under revision), municipal (Barreiro and Moita municipal masterplans, the later already revised and approved), and local (Polis, Naturba and other EU funded programs);

- An outline of key planning and design strategies addressed in specific case studies, and its contribution to the framing of larger, coherent landscape structures in the context of peri urban and metropolitan territories.

#### Gateway G2 ENVIRONMENTAL PLANNING IN THE PERI-URBAN TERRITORY OF OPORTO METROPOLITAN AREA: A CRITICAL APPRAISAL

## Sara Santos Cruz, CITTA - University of Oporto, PORTUGAL

The expansion of metropolitan areas brought along the spreading of urban areas into more unoccupied territories, some with strong rurality. The transformation of these territories introduced a set of environmental issues related to the lack of natural conservation, incapacity in maintaining habitats and fragmentation of ecosystems, among others. The metropolitan area of Oporto is a good illustrative case of a territory that has evolved from a rural pattern with some scattered urban agglomerations throughout the region. The suburbanization process occurred with the growth of the main city and the principal centres around it in the larger peripheral municipalities. Urban decentralization trends have been reinforced by large investments leading to the residential decentralization that was accompanied by the displacement of employment, resulting on a new edge city on the outer ring of the metropolitan area. The superposition of new patterns of territorial occupation on the traditional rural landscape, characterized by a dispersed type of settlement, generated a strong fragmented territory. In these peri-urban areas, open spaces are the remaining spaces of an evolving territory, increasingly characterized by urban footprints. Shopping centres, large residential developments and still some

industrial complexes can be easily found. The lasting environmental structures are typically fragmented, for the exception of some preserved areas, as a result of some disordered urban expansion that took place for some decades, in the 80s and 90s. Environmental planning in this territory around the city of Oporto has been lacking for quite some decades. Only recently, less than a decade ago, some initiatives showed efforts in developing an environmental structure in the metropolitan area. In particular, the regional metropolitan agency developed a Strategic Plan for the Environment. The plan intends to: (i) correct some environmental problems occurring in the region, (ii) define the path towards sustainable development, (iii) Reinforce active and responsible citizenship, and (iv) integrate sectoral policies and promote regional articulation. Municipalities have also been preparing municipal ecological plans as part of their municipal plans. In this context, it is interesting to analyse these instruments and their effectiveness. The paper will, then, focus on a critical analysis of the instruments and tools at the metropolitan and municipal level. The discussion will highlight that these interventions, due to the nature of specific actions, have still very limited impact on the overall environmental structure. An evaluation of the planned interventions and real actions in this territory, as well as an understanding of the socio and cultural role of these spaces will be developed. Our conclusions will evidence the importance of more integrated interventions in the territory.

## Gateway F1 BUSINESS AS EU COHESION POLICY STAKEHOLDER IN POLAND

#### Magdalena Sapala, Poznan University of Economics, POLAND

The article is focused on the potential and actual role of business as a partner in the decision-making process of the EU cohesion policy in Poland. In other words, the aim of the paper is to give a description and explanation of how the partnership principle is being implemented, with a special focus on the role of economic partners in Poland. In the framework of the EU cohesion policy enterprises are entitled to serve a double function: they are beneficiaries of the funds and they are partners in the decision-making process. On the one hand, they are offered the EU funds which are supposed to be invested in the strictly defined types of projects which in turn shall contribute to the achievement of the overall EU development goals. On the other hand, according to article 11 (1) of the general regulation on the cohesion policy, economic partners are listed as bodies which shall participate 'in the preparation, implementation, monitoring and evaluation of operational programmes'. None of these functions however can be imposed on enterprises: whereas one would expect them to be willing to benefit from EU funds, their interest and level of activity in partnership bodies and decision-making processes is less evident. Poland is exceptionally interesting in this respect. The business sector - small and medium size companies (SMEs) in particular - is one of the main recipients of the funds (up to 25% of the total allocation to Poland goes to the productive sector). So far Polish businesses' engagement in the roll-out process has been enormous and, as the absorption reports reveal, they are very successful in fulfilling their role of beneficiaries. At the same time SMEs in Poland distinguish themselves by their very low interest in partnering, due to the relatively young tradition in partnership cooperation and the negative perception of business-government interaction and private sector lobbying. As a result, businesses are less prone to participate in partnership bodies managing structural funds in Poland. The same imbalance can be noticed in the literature and official reports on the partnership principle and multilevel governance. While the role of business as a beneficiary of the EU funds generates a great deal of debate among academics, very little attention is paid to their role as a partner in the decision-making process. In a great deal of research, business representations are mixed with NGOs and other civic organisations. Only occasionally they are examined as a distinctive group which has its own say in the process. The analysis and data presented in this article may help to improve knowledge of the degree of involvement of business representations in the multilevel system of governance in the EU. The topic of the paper is also relevant to the ongoing debate on the future of the EU cohesion policy. In the European Commission proposal of the general regulation for 2014-2020 there are indications that the partnership principle will be strengthened and the role of economic entities both as beneficiaries and decision-making partners will be crucial for the implementation of the programmes. Therefore the article will answer the following questions:

- What are the potential (formal and informal) opportunities for participation of economic partners in the structural funds management system? '
- How are the existing possibilities of participation actually exploited by the Polish private sector?

The research methods include analysis of legal documents, EU regulations, guidelines of the Ministry of Regional Development, Operational Programmes, synopses, protocols, resolutions, lists of attendance from Monitoring Committees etc. The article will present the preliminary results of a research project on the role of

business as EU cohesion policy stakeholder, and this at the three levels of the management system: the European one, the national one and the regional one.

#### Gateway C REGIONAL ASPECTS OF HEALTH INEQUALITIES AND MIGRATION

# Sascha Sardadvar, WU Vienna, AUSTRIA Ursula Karl-Trummer, WU Vienna, AUSTRIA

In recent policy decisions and communications, the European Commission (EC) has committed itself to the goal of equity in health. Current debates focus on the influence of socioeconomic status, as well as on particular vulnerable groups such as migrants and ethnic minorities, and on the role of migrant status or ethnicity as important social determinants of health. The interplay of these factors, however, remains unclear. We address the relationship between health, socioeconomic status (SES) and migrant status. We raise the question whether SES alone is sufficient to explain differences in the health of migrants and non-migrants, or whether migrant status must be regarded as a social determinant of health in its own right. To this end, we apply logit regression analyses and data from the EU-SILC to compare eight EU member states, by taking self-rated health (SRH) as dependent variable. The results show that migrant status is associated with a lower chance of good self-rated health in most countries. The EU-SILC dataset was chosen for comparability and richness of data. Eight EU countries - Austria (AT), Belgium (BE), Spain (ES), Sweden (SE), Greece (GR), Ireland (IE), Italy (IT) and the United Kingdom (UK) – were selected for comparative analysis using the following criteria: participation in EU-SILC, number of migrants in the study, and differentiation between EU and third country migrants. Descriptive analysis shows that migrant groups are strongly disadvantaged in terms of SES. Even those with higher levels of education are found more frequently in lower income classes than the non-migrant population in most countries. As expected, the regression analyses show that socioeconomic variables such as education and income influence self-rated health. However, in six of eight countries (AT, BE, ES, GR, SE, UK) it can be shown that migrant status has a significantly negative influence on health status even when SES is controlled for. In some of these six countries, there are considerable variations concerning effects on women versus men as well as on EU versus third country migrants. As a next step we take a closer look at one of the countries for which a significant influence of migrant status can be found, by applying an extended data set for Austria. In particular, we test whether considerable variations among (i) the nine Austrian NUTS2 regions as well as (ii) rural and urban areas exist. Our analyses underline the need for further research on the interplay of various social determinants of health for migrant groups. It also shows that the use of disaggregated data is crucial, as we find different result for the various migrant groups and regions.

#### Gateway A1

# EVALUATION BY SIMULATION: BRIDGING THE GAP BETWEEN COMMUNICATIVE PLANNING PROCESSES AND EVALUATION WITH AGENT BASED MODELLING

#### Tilman Schenk, University of Leipzig, GERMANY

During the last two decades, the adoption of communicative and participatory practices in the planning discourse has made substantial impact on regional policies for rural areas in the European Union such as in the LEADER programmes, financed from the European Regional Development Fund. Regional policy strategies are consequently increasingly formulated as stakeholder oriented learning processes and qualitative objective statements. Their analysis and assessment thus suffers from a methodological dilemma: While quantitative approaches often struggle with low data availability or lacking measurability of the processes in question, the results of qualitative inquiries are hard to generalize and are often perceived as imprecise. As a consequence, evaluations suffer from low acceptance by the stakeholders. Moreover, the impact relations between regional learning processes and presumable economic effects are complex in nature and barely to grasp with conventional empirical methods. This leads to the postulation to develop sets of methods that will be able to integrate these complexities and at the same time lead to precise evaluation statements. Agent based models prove advantageous in that respect as they do not require to exclude either one of the approaches for purely technical reasons. Furthermore, they are able to represent communication and learning processes among the modeled stakeholders from their own point of view without general simplifying assumptions. The specifications of the underlying model do not necessarily rely on quantifications, but can be formulated on text basis.

Therefore however, a number of methodological challenges have to be resolved. Results of qualitative empirical research have to be adapted for model building, and at the same time, simulation results will have to be produced in a way that they are comprehensible for the stakeholders in the processes analyzed. This paper presents such a research process by systematically developing an agent based model of a communicative planning process and its stakeholder network exclusively from qualitative interviews and participating observation results. During the simulation, the stakeholders, modelled as agents, cooperate in negotiating about development goals and project characteristics, and decide about fund spending. On the basis of a number of simulation scenarios the real-world stakeholders are able to follow and evaluate the consequences of their actions and their potential alternatives. The model is applied to case studies in Germany and Sweden. The paper shows how social simulation techniques can be grounded solely on qualitative empirical research, potentially opening up further areas of applications in regional science.

#### Gateway K3

### THE IMPACT OF STAR SCIENTISTS ON THE CREATION OF LOCALISED INTANGIBLE ASSETS: QUALITATIVE RESULTS FOR GERMANY AND AN AGENDA FOR QUANTITATIVE RESEARCH

## Daniel Schiller, Leibniz University GERMANY

Star scientists at universities and public research institutes are a unique group of individuals within the process of knowledge creation. They are more than simply bearers of a significant amount of knowledge. The fact that they are considered stars is also related to their superior visibility and relevance in their field of studies. Their diverse activities in basic and applied research, teaching, and entrepreneurial activities result in manifold opportunities for knowledge spillovers and transfers. The analysis of knowledge sharing and circulation by star scientists is focused on their impact on intangible assets, namely, non-material factors that contribute to industry performance or that are expected to generate future economic benefits for the entities or individuals who control their deployment. This paper investigates whether star scientists act as (local) knowledge spillover agents by mapping the spatial scope of scientific and industrial collaborations of star scientists in Germany with other actors, namely, with other scholars, industry, entrepreneurs, and students. It also takes into account mobility patterns of star scientists, the rationale behind their mobility decisions, and interrelations between academic mobility and the creation of localised intangible assets. The empirical data were collected using guided face-toface interviews with thirty-nine star scientists in Germany who were asked about their mobility decisions and their spatial scope of scientific, industrial, entrepreneurial and human capital interactions. While this qualitative and explorative analysis definitely provides a comparison between different knowledge flows and an in-depth understanding of the mobility-localisation nexus, it is not able to provide representative measures. However, it is considered to be a relevant contribution with important conclusions for future research in this emerging field. A major finding is that the excellence of star scientists manifests itself in several ways. However, the results do not confirm the expectation that knowledge flows are predominantly locally embedded. The impact on the local economy was especially low for industrial collaborations. Long-term mobility of star scientists in the past increased the amount of induced knowledge flows and the creation of localised intangible assets. The qualitative results for star scientists in Germany are used to outline an agenda for conducting quantitative studies that cover different countries and a more comprehensive group of academic researchers.

#### Gateway G

# NORDIC 'INTER-CITY CONNECTIVITIES' IN A MULTI-SCALAR PERSPECTIVE: A NEW GEOGRAPHY IN THE MAKING?

#### Peter Schmitt, Nordregio, SWEDEN Lukas Smas, Nordregio, SWEDEN

Inspired by the work of the Globalization and World Cities Research Network (GaWC) on exploring connectivity values for cities through intra-firm office networks (cf. Taylor et al. 2011), the paper draws upon experiences of applying a 'modified Nordic-based bottom-up approach' and the indicative results that have been achieved, which, at least from a Nordic perspective, challenge some mainstream mental maps. Similar to the POLYNET-study (cf. Hall/Pain 2006) we have used a selected number of metropolitan areas (here Stockholm, Helsinki, Oslo and Copenhagen) as geographic focal points. By using data sources from 2010 and 2011 we have

explored the network connectivities of cities through the multi-scalar locational strategies of 'Financial and Market service firms' as well as 'ICT firms'. In other words, we have analysed to what extent our sample of firms in the given branches link each of this four Nordic Capital Regions with other cities at the national, Nordic, European and global scale. The calculated values define aggregated linkages between each Nordic capital region and all other cities at the respective scale by the presence and functional importance of offices (in the respective branch). Hence these values do express to what extent cities are interconnected through the analysed sample of firms at the national, Nordic, European or global scale, by considering only those intra-firm networks that incorporate (in terms of office locations!) either the Stockholm, Helsinki, Oslo or Copenhagen metropolitan area. The paper will discuss at first the specific methodology, data sources and restrictions of this survey and reflect critically the explanatory power of the approach also in comparison to other related studies. Secondly, the results will be discussed and contrasted between the two chosen branches, but also between the four Nordic Capital Regions. A specific focus will be laid on the scale dependency, i.e. the different geographic patterns in regards to the connectivity of the Nordic Capital Regions related to other cities within their respective countries, at the Nordic, but most notably at the European and global scale. Since we have used a comparatively large 'roster of cities', we can argue from a Nordic perspective that apparently some established geographic patterns of thought slightly wither away, since we can notice a considerably number of cities with comparatively high connectivity values (related to the Nordic Capital regions) that are located, for instance, in the New Member States of the EU, in the BRIC countries, but most notably also in countries such as Thailand, Chile or South Africa.

# Gateway A COOPERATION AND CONTROL: PARLIAMENTARIANS IN REGIONAL POLICY

#### Christoph Schnabel, Universität Tübingen, BELGIUM

Within the federal system of the German Federal Republic, the regional Parliaments were attested a loss of competences and influence over the past decades [Thaysen 2002]. More recent publications e.g. by Reutter [2008] counter this standpoint, especially as new polity frames in the European multi- level governance system induced by the Treaty of Lisbon are taken under consideration. Also the European policy frames (Europa 2020 Strategy) are directly inflicting Regional Parliaments. In light of these current developments this paper draws the line between Regional Policy and Parliamentarian developments on regionallevel in Germany (Länder). This connection between polity and policy has produced new analytical findings, which are presented in this paper on the basis of two arguments: At a first instance the point is established that EU regional policy has become a main policy instrument on regional level and replaced other regional instruments. More so it is to be argued that in some Länder the EU Policy has become dominant This is in line with the second key argument, that EU regional policy has increased the regional development aspect within policy making and therefore strengthened the role of regional parliaments and in parallel reinforced the federal competences. In a concluding outlook the point is put forward, that the democratic quality of regional policy making has experienced a new dimension due to the European Parliament.

#### Gateway I TRANSNATIONAL AND CROSS-BORDER COOPERATION OF METROPOLITAN AREAS IN THE BALTIC SEA REGION

#### Magdalena Schönweitz, Humboldt University, GERMANY

Since the middle ages until today the Baltic Sea Region is frequently conceptualised as a region composed by cities or city networks. Even through the years of the Cold War a certain number of smaller and bigger cities held contact through city partnership across the East-West divide. Especially since the fall of the Iron Curtain contacts among cities and towns rapidly increased both in quantity and quality. Among a large number of Baltic cities close contacts evolved; cooperation and networking in many different policy areas have become a natural part of every day business today. In context with these general tendencies cross-border activities between urban areas are on the rise, too. With regard to cross-border activities of urban regions in the Baltic Sea Area there are all in all three cases of interest: the Oresund region, the Gothenburg-Oslo Region and the Euregio Helsinki-Tallinn. Moreover, the Oresund case and the Gothenburg Oslo Region are tied together through a transnational forum for cooperation, the Scandinavian Arena. In addition to that the Oresund region is linked up towards

Northern Germany through the so-called STRING cooperation. These different fora are tied together physically through an infrastructure project called the Scandinavian Link, connecting the Scandinavian Peninsula to mainland Europe. In contrast to this relatively strong transnational embeddedness the case of the Euregio Helsinki Tallinn seems to be more a singular kind of cooperation in the Eastern Baltic Sea Region. Besides these variations within the transnational context urban areas generally agree on a similar diagnosis of their own situation in face of globalisation and the increasing competition between urban areas about investments, high skilled work force, tourist destinations or places of living. Being too small to be able to compete with global cities such as New York, Tokyo or emerging megacities in China and the Oil States large cities in the Baltic Sea Region see the necessity to build alliances and to join forces to reach the so-called critical mass to enhance their international visibility and to safeguard their social and economic welfare. This agenda paves under specific preconditions the way for more strategic cross-border and transnational cooperation and asks for the development of governance tools, which suit these preconditions. Therefore we find cross-border institutions, such as the Oresund Committee or the Gothenburg Oslo Council. But also the respective INTERREGprogrammes provide a platform for transnational and cross-border governance. In my presentation I give an overview on the single cases for urban cross-border cooperation. Furthermore, I will elaborate on the diversity and similarities of urban cross-border cooperation projects in the Baltic Sea Area. Finally, I will give insight in the multi-layered context of transnational and cross-border cooperation in the Baltic Sea Area.

#### Gateway F1

# ALIGNING EU OBJECTIVES AND REGIONAL STRATEGIES IN EU FUNDING - THE ROLE OF REGIONAL PROGRAMMES

#### Anne Schopp, German Institute of Economic Research, GERMANY

Overview The EU Commission envisages closely linking the next financial framework 2014-2020 to the Europe 2020 Strategy. To inform the discussion on aligning strategies in multi-level governance structures, we explore experiences of the German states in enhancing the implementation of EU objectives at the regional level and in building upon regional strengths and strategies within the context of the existing financial framework 2007-2013. Methods In one-hour structured interviews in summer 2011, we surveyed regional ministries on how EU funding was implemented through regional programs in the German states for the 2007-2013 period. In particular, we assess quantitatively and qualitatively, which instruments and decision-making processes had the greatest impact on integrating EU strategies in the regional programs and best supported regional stakeholders in formulating strategies that build upon regional strengths and priorities. In addition, we reviewed documents and data on regional strategies and the use of budgets for different priorities. Based on these past experiences, we evaluated the instruments proposed by the EU Commission to facilitate the implementation of EU objectives at regional level in the period 2014-2020. Findings The EU budget's seven-year framework offers the opportunity to pursue long-term strategies at regional level by creating consistency across each step of the decision-making process, from program formulation to implementation, monitoring and evaluation. The strategies as formulated in the regional programs are a synthesis of existing state strategies, regional needs, programs of the previous budget period and the EU framework. For instance, by aligning the European Regional Development Fund and the Lisbon Strategy through quantified objectives and earmarking provisions, regional stakeholders were able to prioritize those dimensions that are closely linked to the Lisbon Strategy, e.g. innovation. The stronger focus on innovation in the regional program for the period 2007-2013, as reported consistently by representatives of the regional ministries, is also reflected by a shift to program-specific "priority axes" (thematic priorities) and EU standardized "expenditure categories" related to innovation. Following EU Commission approval of the regional program, decisions to implement the formulated strategies according to regional priorities and funding rules are mainly within regional ministries. The commitment to integrating cross-cutting objectives such as sustainable development and gender equality is pursued in the regional programs through project selection criteria rather than through direct priority axes. The survey results indicate that cross-cutting objectives play a lesser role than other objectives in project selection and that current practices differ across German states. The process step of formulating the regional program at the beginning of the budget period seems to be crucial for the alignment of EU objectives and regional strategies. When formulating regional programs and obtaining consensus among various regional stakeholders, the survey results suggest that specifying program-specific priority axes offers the opportunity to align the program with existing regional strategies and thus enhance domestic ownership. Expenditure categories are perceived by some representatives of regional ministries as a rather formal commitment. This instrument is used at the EU level to show how money is spent in the member states at aggregate level. If EU strategies are to be more strongly integrated into regional programs as envisaged by the

EU Commission for the period 2014-2020, then priority axis status is more effective than inclusion through an expenditure category.

### *Gateway K1* **THE COMET TAIL'S PROFILE: VARIATION AND CHANGE IN SUPPORT NETWORK RELATIONS OF INNOVATIVE AND NON-INNOVATIVE ENTREPRENEURS**

#### Veronique Schutjens, Urban and Regional Research Centre &, Utrecht University, NETHERLANDS

This contribution focuses on the micro-level of innovation and networks, the entrepreneur as the basic driver of economic change. Social networks contribute to firm success as they provide access to resources - and this especially goes for young and small firms in the opportunity identification and resource mobilization phase (Brüderl & Preisendörfer 1998). It has also been found that networks contribute to entrepreneurial activity, firm performance and even innovation, both on the aggregate and individual level (see Bosma et al. 2011 and Samuelsson & Davidsson 2009 respectively). However, in analyzing the network effect on entrepreneurial innovation we face a endogeneity problem as compared to non-innovative entrepreneurs, more innovative ones may have build genuinely different networks or use them differently, for instance more intense and strategic, already from the start of their firm (Stuart & Sorenson 2007). Moreover, since networks, network relations and the resources needed and actually transferred within networks change over the firm life course, this change might also vary between innovative and non-innovative entrepreneurs. It is however unclear to what extent the networks of innovative and non-innovative entrepreneurs differ and follow different trajectories over time. Changing network relations of entrepreneurs with respect to importance, origin and (geographical) proximity and resemblance, brings in a dynamic element in the study on drivers of entrepreneurial innovation. The paper has three parts. First, the contribution of innovation diffusion to economic development and economic or industrial change is shortly addressed. The idea is that wide spread economic effects of innovation need imitation and therefore also imitative entrepreneurs. This turns the spotlight to the non-innovative (or imitative) entrepreneur as opposed to the innovative entrepreneur. The latter 'comet' perhaps has been centre stage too long already, while it is the former imitative 'tail' which makes the comet visible in the first place. The second part gives an overview of studies tackling (parts of) the following research question: to what extent do support networks and support peers of innovative entrepreneurs differ from non-innovative entrepreneurs; and do these support peers/networks undergo differential change over time? The need for this insight on the structure and change of networks of types of entrepreneurs is crucial to tackle endogeneity problems in the analysis of social network effects on firm performance and innovation in particular. In the third part of the paper, some first empirical findings illustrate the variation in ego-networks of entrepreneurs of young firms, in focusing on whether the main support peers of innovative entrepreneurs differ from the peers of more non-innovative counterparts. In addition, it is investigated whether and to what extent these types of entrepreneurs renew their network of support peers (and their influence as perceived by the entrepreneurs) over the firm life course - and if so, with whom the former peers are replaced.

#### Gateway L2 REGIONAL IDENTITY: DRIVER OR BARRIER IN REGIONAL DEVELOPMENT, CASE STUDY OF BOHEMIAN PARADISE

#### Michal Semian, Charles University in Prague, CZECH REPUBLIC

In the context of attempts to solve the development problems of peripheral areas, researchers often discuss the significance of internal potential for development – the presence and relative level of natural and man-made capital as well as human and social capital – as they prepare or advise the preparation of regional development strategies. The presence of agents/subjects, who initiate development "from below", in a given area, are inseparably connected to these forms of capital in the context of approaches of European 'new' regionalism. This is one reason why interest in research on the relationship between people and the territory they live in is becoming more and more important, in recent years, along with research concerning the degree to which one "belongs" to a territory and its territorial society. Generally speaking, this means interest in regional identity, which can, in this sense, be considered an agent of regional development. Unfortunately, very few papers exist in Czech or even in European literature that explore the relationship between territorial identity and the development of peripheral areas. These papers mainly deals with the problems: in which circumstances the

regional identity can act as a driver in regional identity or which factors/aspects causes the ineffectiveness of using regional identity as a driver to regional development. Our research in the area of Bohemian Paradise reveals that there is a possibility that the regional identity can also act as a barrier to regional development. Bohemian Paradise is a cultural region in northern Bohemia with a strong, well distinguishable identity, which is used for regional development mainly through tourism. In this region the identity can act as a driver in several ways: e.g. by relieving to overcrowded centre or by inclusion of not as attractive places as the central parts into the region with well-known name. On the other hand the identities of other regions in the area (administrative NUTS III regions) put barriers against regional development mainly on political level. We can find several other examples in the European literature as well. In conclusion we would like to state that this phenomenon lays beyond the scope of the interest of researchers. But it is important to study regional identity in the context of regional development not only as a driver, but also as a barrier to better understanding of mechanism in regional identity – regional development relationship.

#### Gateway K

#### KIBS USE AND INNOVATION IN MANUFACTURING FIRMS: A GEOGRAPHIC PERSPECTIVE

#### Richard Shearmur, INRS-UCS, CANADA David Doloreux, University of Ottawa, CANADA

KIBS are innovators in their own right, but it is thought that their principal contribution to innovation may be by way of knowledge transfer and co-production with their clients. Working from a survey of 804 manufacturing establishments in Quebec, we explore the extent to which innovation in manufacturing firms is connected with their use of KIBS, and whether this differs depending on location. KIBS are defined as tangible services, and are conceptualised as contributing to different stages of the manufacturing value chain. It is found that KIBS use is strongly connected with innovation. Furthermore, this connection differs depending on the type of innovation considered - only radical innovations being connected with the use of services during the validation stage of the value chain. The use of services does not differ much across space, but establishments located in remote areas are the furthest from their service providers, particularly for services strongly connected with innovation: this suggests that KIBS-based innovation systems are not localised. There is no evidence, however, that it is those establishments that are furthest from their service providers that are the most innovative: thus innovators, even in remote areas, do not necessarily need to search far afield for appropriate services.

#### Gateway K

# COLLABORATION, (TRANSFERABLE AND NON-TRANSFERABLE) KNOWLEDGE AND INNOVATION: A STUDY OF COOL CLIMATE WINE INDUSTRY (CANADA)

#### Richard Shearmur, Université Du Québec, CANADA David Doloreux, University of Ottawa, CANADA Regis Guillaume, Université Le Mirail-Toulouse, CANADA

The connection between innovation and territory is increasingly being questioned as evidence shows that collaboration and information exchange is not necessarily localised. However, this general observation may differ depending on the industry and type of exchange studied: some types information and may be more transferable than others. This may particularly be the case in the wine industry which, especially in Canada, is concentrated in a few regions, each with its own climate, geography and institutions. This article examines the nature and geography of collaboration in this industry, with emphasis on the relative importance of different sources of knowledge, the spatial dimension of exchanges and their relevance for innovation. We find that certain knowledge exchanges are localised, particularly those that are closely associated with local growing conditions, whereas other more generic industry-level exchanges occur at a wider spatial scale.

#### Gateway B CLUES TO UK URBAN ENERGY: USING A DELPHI APPROACH TO UNDERSTAND CHALLENGES AND OPPORTUNITIES

## Graeme Sherriff, University of Manchester, UK

The CLUES Project (Challenging Lock-in through Urban Energy Systems) is critically exploring pathways of development for energy systems in UK city regions. Through UK and international reviews, researchers are exploring the range and types of existing and potentially innovative urban energy systems and seeking to understand how such systems can be 'scaled up' in order to effectively contribute to national decarbonisation and urban sustainability goals. This paper will report on a Delphi study with which we have sought to contextualise the findings of the case study research in CLUES. The project has two streams of work investigating energy initiatives, in the UK and international contexts respectively, that seek to understand the potential impacts of the projects, the challenges faced in their development and implementation, and the role of governance, economic, social and technological factors. The study has provided an understanding of the national context within which the finer-grained investigation of selected case studies can be placed. The application of the Delphi approach comprised an Internet survey in two stages, with analysis and feedback occurring after the first, and informing the design of the second. The questions concerned motivations and drivers for initiatives, barriers and challenges experienced, and existing and potential resources for support. The approach has the practical benefit of enabling a large group of busy people to input without requiring them to travel to a workshop, and the methodological benefits of combining the assurance of anonymity expected of an online survey with some of the iteration of ideas that would be found at a workshop. In this research, the design of the second stage was informed not only by the results of the first stage, but also by those of the CLUES case study research, therefore providing an interesting modification of the method. The implications of the findings are considered in the light of the challenge of planning sustainable, low-carbon regions. The value of the Delphi approach, and the modified form of it used here, for engaging stakeholders on issues relating to the sustainable city region, is also explored.

### Gateway A1 ANALYSIS OF SCOTTISH RURAL DEVELOPMENT POLICY: INFLUENCES OF UPTAKE

Anastasia Silburn, University of Edinburgh, UK Mark Rounsevell, University of Edinburgh, UK Claire Haggett, University of Edinburgh, UK Ronald Wilson, University of Edinburgh, UK

This study aims to examine the effectiveness of Scottish rural development policy (SRDP) in terms of voluntary participation. This will be achieved by evaluating specifically the competitive scheme; Rural Priorities (RDC - RP) which aims to deliver targeted environmental, social and economic benefits. This study involves a quantitative statistical analysis to model the patterns and relationships between option uptake and expenditure of RP across Scotland. The aim will be to decipher what variables whether environmental, agricultural or socio-economic could be considered determinants of option uptake and extent. This information will contribute to the European Commission funded research project SPARD (Spatial Analysis of Rural Development), which aims to help policy-makers understand the causal relationships between rural development measures and their consequences in a spatial dimension.

### Gateway K THE ROLE OF KNOWLEDGE IN THE AUTOMOTIVE INDUSTRY

### Melinda Smahó, Széchenyi István University, HUNGARY

Knowledge and new ideas has always affected economic and social development during the history of mankind. However, there are essential differences between the role and importance knowledge is playing in the various economic sectors and production systems changing from time to time. My paper and presentation concentrates on the specific contexts and characteristics knowledge shows in the vehicle (automotive) industry, first of all in the regions of East and Central European (CEE) countries (Germany, Austria, Slovakia, Czech Republic, Slovenia, Poland, Hungary, Romania). Innovation in the automotive industry can be defined mainly as a result of a collaborative cooperation between Original Equipment Manufacturers (OEMs) and their Tier1 suppliers disposing technological experience. My first aim is to give a theoretical and historical overview about the role of knowledge and its diverse forms (e.g. knowledge base, technology, skilled workforce, tacit knowledge, culture, etc.) played in the different production systems of the automotive industry (craft manufacturing, mass manufacturing, lean manufacturing, adaptive manufacturing). Secondly, I analyse the actual innovation features of the automotive industry, caused by the deep technological change. I explore the recent changes in the automotive value chains, from the point of view of knowledge processes and knowledge flows between Original Equipment Manufacturers and their suppliers. On the one hand, supplier firms are more and more involved in the value creation process, i.e. they (Tier 1 suppliers) take over not only more and more production functions, but also research and development functions. On the second hand, product life cycle shortened drastically, therefore, supplier firms are forced to carry out product and technology development more and more quickly. These trends influence strongly also the production and location strategy of the supplier firms. Thirdly, I investigate the geographical patterns of knowledge holders and knowledge processes (R&D activities), related to the automotive firms and institutions located in the regions of Central and Eastern Europe. After the regime change, numerous foreign automotive firms (OEMs and their global suppliers) opened new (green or brownfield) production facilities in CEE regions. I investigate, whether and in which extent this incorporated / incorporates knowledge (technology) inflow, based on the host regions' knowledge base. I explore the patterns and geographical specialities of different types of upgrading taking place in CEE regions. Next to comparing the situation of CEE regions, I pay particular attention to the analysis of the knowledge processes and specialities of the Hungarian automotive supplier network based on a questionnaire (N=122) and focusing in the Central- and Western Transdanubian regions.

#### Gateway A1

# SHOULD SPATIAL ECONOMETRICS BE USED TO EVALUATE THE SUCCESS OF RURAL DEVELOPMENT PROGRAMMES?

#### Martijn Smit, Vrije Universiteit Amsterdam, NETHERLANDS Eveline van Leeuwen, Vrije Universiteit Amsterdam, NETHERLANDS

When looking at relative changes in labour productivity it is technological change and its diffusion and adaptation that make the difference. One important aspect of this process is catching up; less advantaged regions can easily copy techniques and routines from the leading region. Policymakers love the idea that spending money and improving conditions in one region may have positive benefits in other regions as well -i.e., that spillovers take place. Accounting for these benefits may improve our estimate of the effects of money spent, leading to less cynicism or to better targeting. It is however not clear whether these spillovers, which take place between individuals through firms and farms can be projected to a regional scale as well. This study therefore explores the usefulness of spatial econometrics as a tool to evaluate Rural Development Programmes (RDPs) at the NUTS2 level, focusing on labour productivity in agriculture. For our analysis, we base our model upon the basic Solow/Swan model as set up by Mankiw, Romer and Weil in 1992. MRW define total production as a function of capital, labour, and a modifying technological component. We then employ data from Cambridge Econometrics (the Regional Economic Model) with comprehensive economic data at the NUTS2 level, as well as Eurostat data characterizing the agricultural sector in each region. Starting from a traditional aspatial model, we then test for spatial autocorrelation, developing spatial error models as well as a mixed, "Durbin" model. We test these for the years 2000-2010, with an additional robustness check on two half-periods. Our findings suggest that spendings within the RDPs do not have a significant influence on agricultural labour productivity, at least not when measured over an 11 or 6-year period, at the NUTS2 level for all of Europe, with RDP spendings aggregated across all axes, and looking at the agricultural sector as a whole. As for the role of spatial econometrics, we show using ESDA that agricultural labour productivity has a clear spatial pattern, and using LM tests that analyses that include spatial econometrics will be more accurate than regular estimations. However, even though in our estimations the results are more precise, they are still quite similar to the aspatial models. From a policy perspective this implies that not taking spatial correlations into account may well be an acceptable second best strategy.

#### Gateway G CITIES, CITY REGIONS, GROWTH AND THE DEVOLUTION OF POWERS: SOME THOUGHTS ON THE BRITISH CASE

## David Smith, Middlesex University, UK Enid Wistrich, Middlesex University, UK

61 'city regions' have been designated by the European Union of which 7 are in England. Of these London has the highest per capita income (23rd of the 61), followed by Bristol (34th), and Birmingham (56th). A group of the largest English city councils have been working together since 1995 as the English Core Cities Group to set out a vision of the role big cities should play. These cities are distinguished by having wider partnerships in public, private and community sector interests and agencies across each city's wider economy. They worked with the Department of Communities and Local Government in developing city region prospectuses and in 2009 under the Labour Government of 1997 - 2010 several submitted formal bids to become pilot city regions by creating cross boundary partnerships giving greater powers over jobs, skills, transport, regeneration and economic development. However a similar number declined to apply for this new status. The Local Democracy, Economic Development and Construction Act (2009) empowered cities to develop Combined City Authorities (CAAs). London was the first to be granted a Combined City Authority. It includes elected members of metropolitan borough councils in its area and exercises the powers of the Greater London Council and Borough Councils on overall London development affairs. It has been followed by Manchester in 2011. The main focus of partnerships for the majority of the Core Cities under the 2010 Coalition Government is their Local Economic Partnerships (LEPs). Although LEPs exist in all areas, the Core Cities and the Coalition Government appear to see the cities as the key to economic growth. The Deputy Prime Minister Nick Clegg in a paper written in 2011 envisages cities as being major engines for growth provided that the Government can unlock their full potential through a major shift in the powers available to local leaders and businesses to drive economic growth and boost entire regions. This is similar to the rhetoric of the previous Labour Government and its 'city regions'. However, Clegg rejects 'a one-size-fits-all model' in favour of 'individual city deals' and stresses that 'every city is different.' This paper is only one of several Coalition Government policies for cities. Further policies are seen in the Localism Act (2011) which offers certain cities, CAAs and LEPs considerably greater powers. Our present paper examines some of the implications of current government policies for national and regional economic and political development with the help of material drawn from our empirical study begun in 2009. This involves depth interviews with members of regional and local political, administrative, business and third sector elites from three English regions. It includes a number of cities, including two city regions, as well as less urban regions within England. We have also interviewed leading officers of appropriate central government departments and quangos.

#### Gateway C

# ARE ATTRACTIVE PLACES RESILIENT PLACES?

#### Ian Smith, University of the West of England, UK Antonio Russo, University Rovira I Virgili, SPAIN

Building on work funded by the ESPON 2013 Program, the paper explores the role of mobile populations in building regional resilience and the relationship between forms of mobility and the characteristics of regions (territorial capital). The ESPON project ATTREG set out to analyse these correlative relationships across Europe during the period or relatively benign economic growth 2000-07. The paper sets out a regional typology that was generated based on the mobility measures. It sets out how the measures of long and short term mobility relate to our measures of territorial capital both in groups of relating measures based on individual regions and also relating class averages. The paper goes on to explore the economic and labour market performance of regions based on this typology both in terms of economic performance for the period 2000-07 but also for 2008-10. Based on multinomial regression for the period 2000-07, the correlative relationships suggests that inward mobility is a potential signal for unsustainable growth within regional economies when it is 'high' but outward mobility is broadly associated with positive aggregate changes in east and central Europe. Analysis of mobility indicators might thus create a barometer of vulnerability given that inter-regional mobility of people and labour (in a variety of different forms) is one of the potential levers for economic correction during economic crises. The nature of that relationship might be expected to be different during different phases of the economic cycle. The paper discusses the potential causal relationships between the different forms of mobility that relate to the measures of territorial capital.

# THE EFFECT OF THE NATION-STATE BORDER ON VARIOUS TYPES OF PROXIMITIES IN COLLABORATIVE CORPORATE INNOVATION PROJECTS

### Huub Smulders, Radboud University, NETHERLANDS Jos Van Den Broek, Radboud University, NETHERLANDS

The motivation for this paper stems from an interest and involvement in EU regional policy on two separate and partly interlinked topics: borders and innovation. Through the (re)distribution of wealth the European Union aims at establishing an integrated, equally prosperous and competitive European space. From this perspective, driving innovation performance and cross-border cooperation are crucial. Programs aimed at increasing regional competitiveness are mainly focused at innovation and the knowledge economy, whereas the European territorial cooperation objective is aimed at developing cross-border (economic) relations. As a result of these INTERREG funding activities there is a growing amount of cross-border regions, defined as territorial units that comprise of neighbouring sub-national units belonging to two or more nation states (Perkmann, 2007; Trippl, 2010). Increasingly, we are witnessing an attempt to integrate the two EU objectives of promoting competitiveness through innovation and development of cross-border regions, leading to the (conceptual) construction of crossborder innovation spaces. There is a great deal of complexity to this observation. At first sight, the national border might seem to be reduced to a cartographic line on the map of Europe. Nevertheless, the border still plays an active role in the everyday social and economic interaction between actors. The border can be a point of contact, but in many cases it inhibits cooperation. We observe a 'back(s) to the border' effect among economic actors in border regions. The multifaceted border effect could impede innovation performance in cross-border regions. The aim of the paper is to construct a conceptual framework to analyze the role of the border in collaborative corporate innovation projects. Therefore we need to define a framework that brings together theoretical notions on collaborative corporate innovation, cross-border cooperation and the spatial dimension of innovation. We take the firms that actually innovate together as the starting point of our analysis. Taking an actor perspective does not imply that the regional perspective is disregarded. Firms are still embedded in a regional context. Hitherto regional innovation has been analyzed from various perspectives, each trying to explain why some places are more successful in terms of regional innovation capabilities than others. In our view the concept of Regional Innovation Systems is an approach, when applied adequately, allowing for analysis of both the systems at work in a region and the analysis of the multi-scalar embeddedness of the region. The RIS approach emphasizes economic and social interactions between agents, while not neglecting the spatial dimension through its focus on the embeddedness of the region in wider national and global systems (Asheim, 2011). Zooming in on the firm, the innovation process is most likely to be incremental by nature. Small changes to products and processes are made to improve them. In order to do so, firms make use of internal knowledge resources. These can be extracted from specialized R&D departments or are the result of the day-to-day learning processes that take place within the firm. For firms to pursue radical innovation, the absorption of external knowledge is crucial (Malecki, 2009; De Man & Duysters, 2011). It is therefore of importance to analyze the interaction process between firms that innovate together. The work of Boschma (2005) on various types of proximities seems to tie together theoretical notions on collaborative corporate innovation, cross-border cooperation and the spatial dimension of innovation. His proximity framework also combines the actor perspective with a spatial dimension. Boschma defined the various types of proximities as follows: geographical, cognitive, institutional, social and organizational. Proximity is especially interesting in crossborder innovation projects as studies show that geographical proximity is helpful in creating knowledge spillovers, which is crucial for firm level innovation to occur. We also know that geographical proximity is not sufficient for knowledge spillovers to occur and inter-firm learning processes to take place. In a cross-border region geographical proximity is assumed to be present. Nevertheless, we also observe a backs-to-the-border effect. This might imply that the other types of proximity defined by Boschma have a different effect on crossborder cooperation in corporate innovation projects, compared to collaborative corporate innovation projects within a nation state border.

#### Gateway F THE POSITION AND PERSPECTIVE OF COOPERATION IN CITY-SUBURBAN AREAS (THE CASE OF HUNGARY)

#### Edit Somlyódyné Pfeil, HAS Research Centre for Economic and Regional Studies, HUNGARY

In Central-Eastern-Europe there is a lack of tradition of city-suburban cooperation. In this macro-region Hungary is a strongly centralised unitary state with fragmented local governmental structure, where no decentralization process was taken in force since the transition. At the end of 2011 the Hungarian Parliament has introduced the new regulation of the Hungarian local government system with a renewed centralization approach. The subnational level (county authority) has been entirely debilitated. In this framework the absence of any regulation of urban-rural linkages can be established – apart from the Budapest metropolitan area. The agglomerations are still no more than subjects of statistical data collection. Albeit, these areas are important spaces of public service provision, and are targets of regional developmental activities at the same time. What is more, the European Union highlighted the increasing role of cities in urban policy as well, cities must therefore assume the responsibility of fulfilling the criteria of spatial cohesion. What road is Europe taking and what tasks await Hungary in the formalization of city-suburban co-operation, in urban governance? The paper sum up the main results of the research work – including the empirical survey – of three city-suburban areas in Hungary in 2010–2012 (The research has been supported and financed by the National Hungarian Fund, OTKA, Nr. 81789). It should be mentioned that the Hungarian city ranking is defective, since it is easy to recognize, below Budapest, the category of large cities with a population of 300-500,000 is missing. On the next level of city ranking the population of the cities does not exceed 200,000 inhabitants. Concerning this latter category of cities the paper is going to focus on the three nominated Hungarian city-suburban areas (agglomerations) beyond Budapest. These latter city-suburban areas (medium-size cities on a European scale) Györ, Miskolc and Pécs has been the subject of the analysis, which were classified as functional urban areas. These are situated in three different regions of the country and as a consequence, each represents distinctively different types in terms of de-velopment and economic situation. The main question of the basic research was in what ways do urban areas with intensive relational networks differ from traditional city-regional relations, and what factors reinforce the usage of governance as a special methodology of cooperation. A further inquiry of the research was whether the investigated city-suburban areas could be considered as units for public service provision, regional economic development and strategic planning. According to the results the paper would like to draw attention to the different characteristics of urban governance efforts in CEC, especially in comparing Hungary to high developed countries. Because of the important aspect of the survey the revealing of horizontal cooperation was referring to networks of public, private and civil actors, and the vertical coordination and cooperation which can be seen as the political translation of the subsidiary principle. To summarize we can recognize significant obstacles in adaption of governance structures on the one hand, and on the other the very weak vertical connections between the different political levels, owing to the rejection of decentralisation by the state. Consequently there was an uncertain mechanism to counterbalance regional differences and to implement territorial cohesion.

### Gateway K2 ARE MAR, JACOBS AND PORTER EXTERNALITIES LESS IMPORTANT FOR MULTI-PLANT FIRMS THAN SINGLE PLANT FIRMS?

#### Robert Sörensson, CERUM, Umeå University, SWEDEN

In the literature treating endogenous growth models, human capital accumulation and knowledge spillovers serve as the basis for the growth in an economy. Dynamic externalities in this context are postulated to be the source of productivity growth that operate in an wider environment characterized by increasing returns to scale external to the individual firm, see e.g. Romer (1986) and Lucas (1988). Since such externalities stem from the interactions of economic agents these effects should be more pronounced when agents are in close proximity to one another. According to Glaeser et al. (1992) there are three different types of dynamic externalities, jointly sharing the view that innovation and improvements in a particular firm increase the productivity of other firms; but the postulated sources of these externalities differ. Views based on ideas developed by Marshall (1920), Arrow (1962), and Romer (1990), and hence referred to as Marshall-Arrow-Romer (MAR) theory, hold that concentration of an industry in a specific location promotes knowledge spillover between firms, thus inducing productivity growth of that industry. Furthermore, a monopolistic local market structure, rather than local competition, enhances growth since the former restricts the dissemination of ideas to a larger extent and thus

allows externalities to be internalized by the innovating firm. At the other end of the spectrum, Jacobs (1969) emphasizes the importance of accumulation of knowledge associated with diversity in industries, and hence postulates that industries located in highly diversified areas are likely to grow most rapidly. In addition, according to this conceptual framework, a highly competitive climate obliges firms to innovate to remain competitive, which in turn further promotes the transmission of knowledge across firms. Finally, Porter (1990) views of externalities, like MAR, emphasize that concentration within the same industry is the dominant channel for spillover between firms, but in contrast to MAR and more in line with Jacobs, local competition is believed to foster growth by promoting rapid adoption of innovation and dissemination of local information. It should be stressed that these models are not mutually exclusive, but instead differ in the aspects emphasized in attempts to explain how externalities affect productivity. In this paper I: a) study the growth effects of MAR, Jacobs and Porter externalities; b) discriminate between MAR, Jacobs and Porter externalities; c) compare whether multi-plant firms from 1997 to 2005; b) discriminate between MAR, Jacobs and Porter externalities; c) compare whether multi-plant firms are less dependent on knowledge transfers than single plant firms possibly due to greater potential inhouse resources.

#### Gateway J

# ENTREPRENEURSHIP AND INSTITUTIONS: THE MISSING FACTORS IN EXPLAINING THE COMPETITIVENESS OF THE EU REGIONS?

#### Sonia Sousa, George Mason University, USA

This paper seeks to answer two questions. The first question is whether entrepreneurship and institutions are significant determinants of the competitiveness of the European Union (EU) regions, after controlling for the impact of the traditional factors of regional competitiveness. The second question is whether each EU region has efficiently translated the available factors of regional competitiveness into competitive performance, using the most efficient EU regions as a benchmark. A competitive region is here defined as one that can create, attract, and maintain firms able to thrive in the global marketplace and thereby is a region capable of generating longterm high and increasing standards of living for its population. Regional competitiveness is empirically measured here by the gross value added per worker, which is a proxy for regional productivity – the ultimate source of long-term regional high and increasing standards of living. Entrepreneurship is defined and measured in this study by the economic value the entrepreneurs add to the process of regional economic development and competitiveness. In so doing, this paper follows the total factor productivity-based approach to the measurement of the regional- and industry-level economic value of entrepreneurship developed by Sousa (2011). The institutions considered in this paper refer to the national-level institutional environment, as measured by the arithmetic mean of the six indicators that make up the World Bank's Worldwide Governance Indicators. A better assessment of the region-specific institutional environment would require regional-level indicators comparable over EU regions and covering at least the 13-year period used in this study. Unfortunately, to date, comparable indicators assessing the region-specific institutional environment in the EU are only available for a limited number of regions and covering a few years. A two-stage methodology is developed to answer this paper's two major questions. Stage one proposes a model of regional competitiveness in developed economies (RCDE model). In this model, regional competitiveness is a function of:

(1) the economic value of entrepreneurship;

(2) the national-level institutional environment; and

(3) the set of traditional factors of regional competitiveness.

The traditional factors of regional competitiveness are those predicted by both mainstream theories of regional development and empirical methods of regional competitiveness assessment in regions where the basic preconditions for development are already in place. They are:

(1) labor availability;

(2) labor skills;

(3) relative labor cost;

(4) physical capital;

(5) scientific and technological capital;

(6) business structure, diversity, and density;

(7) scale of the regional economy;

(8) direct role of government; and

(9) quality of life.

Panel data regression analysis is used to empirically test the impact of entrepreneurship, as measured by its economic value, and the national-level institutional environment on EU regional competitiveness, controlling for the effect of the traditional factors of regional competitiveness. More specifically, in estimating the RCDE model, a panel data generalized least squares regression technique with time-specific fixed effects, region-specific random effects, and a first-order autoregressive error term is employed. Stage two applies data envelopment analysis (DEA) to measure the efficiency of each EU region, relative to the most efficient EU region's competitive performance. DEA estimates a non-parametric efficiency frontier, which is determined by the subset of efficient regions and envelopes all the other regions. The "distance" of each inefficient region to the efficient frontier with respect to each factor of competitiveness (inputs) corresponds to the degree of the region's inefficiency in using that specific factor (input). The data used in this two-stage methodology pools cross sectional (EU NUTS-2 level regions) data and time series data covering the 13-year period from 1995 to 2007. The major data source for the construction of this dataset is the Eurostat Regional Database. Other sources include:

- (1) the Eurostat EU National Accounts Database;
- (2) the Eurostat Income and Living Conditions Survey;
- (3) the ESPON database, and
- (4) the World Bank Governance Indicators database.

The results clearly establish entrepreneurship and the national-level institutional environment as key drivers of the EU regional competitiveness. Both factors have a positive and highly significant impact on the competitiveness of the EU regions after controlling for the effects of the traditional factors of competitiveness. This paper also finds that in boosting their competitive performance, lagging EU regions should both increase the availability of scarce but efficiently used factors and enhance the efficiency with which they use the relatively abundant factors. Factors targeted mostly for an increase in availability include: physical capital, scientific and technological capital, labor skills, and entrepreneurship. The factors targeted primarily for efficiency enhancement include: structural funds, the taxes-benefits ratio, unit labor costs, and the labor force. The national-level institutional environment should be targeted for both quality improvement and efficiency enhancement as many lagging regions have both a less favorable institutional environment and room for making a better use of their current institutional environment

#### Gateway M3

# META-GOVERNANCE AND DEVELOPING INTEGRATIVE TERRITORIAL STRATEGIES: THE CASE OF MIRT TERRITORIAL AGENDAS IN THE RANDSTAD (NETHERLANDS) - M3

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This paper discusses the role of meta-governance in developing integrative territorial strategies. Evidence is drawn from analysing three cases in the Randstad (Netherlands) of regional strategy making within the context of the long-term central government investment programme on infrastructure and spatial development, in short: MIRT. A novelty of the MIRT programme as opposed to its predecessor, the MIT programme (without the 'R' of ruimte, or territory), is that it asks for developing a territorial agenda as a basis for further project implementation. The territorial agenda is developed in order to provide a strategic framework to assess which programmes and projects should be taken up. The agendas are drawn up cooperatively by central and lower tier government in each region. They constitute the underpinning with respect to central government investments in new programmes and projects. They are meant to stimulate the coherence between the different policy fields and between central and regional policy. The agendas are agreed upon in a multi-level government meeting and form the basis for the agenda of these meetings. New about the territorial agendas is that they provide insight why projects are being pursued and how they contribute to the integrated development of an area. An additional advantage is that central and lower tier government share this vision. The MIRT territorial agendas serve a confined goal – basis for decisions on investments in particularly infrastructure – and are based on existing policy. Whereas this new practice is still on-going and has not fully crystallised yet, it is possible already to draw a few conclusions from it in terms of how meta-governance affects - positively and negatively integrative regional strategy making and implementation. Meta-governance is seen as the 'governance of governance', or the 'regulation of self-regulation' (Jessop, 2004). The purpose of meta-governance is to create some form of coordination, coherence and integration in the fragmented structures of network governance

without completely undermining the autonomy, engagement and self-regulation in governance networks (Sørensen, 2006). In so doing the concept of meta-governance provides an analytical tool to analyse processes of network governance, which is relevant in the Randstad region where governance arrangements stumble over each other. In terms of findings we observe amongst others that the MIRT programme creates an institutional context which enables governmental stakeholders to deal effectively with the fragmented governance situation in their part of the Randstad. Also it is effective, in a number of ways, in relating strategy and vision to the concrete implementation of projects and investments. Yet, there are a few drawbacks too, in particular referring to the limited set of involved stakeholders and legitimacy as well as to the difficulty in aligning with other policy programmes and initiatives, especially those of regional and local governments. These and other findings fuel a further reflection on the possible role of meta-governance in regional integrative strategy making. In particular the reflection will focus on what can be expected from meta-governance in terms of achieving certain levels of 1) policy integration as well as of 2) collaboration, participation and legitimacy. Besides the three territorial agendas in the Randstad the paper draws on research done within the ESPON RISE project from which the paper originates. The objective of ESPON RISE is to develop knowledge and understanding of integrative territorial strategies - of their emergence and of their operation - in Europe. This overall objective is broken down into three main action lines: - To chart the dimensions of the integrative territorial strategies in four case study regions, their scope, their participants, their process, their integration and effectiveness. These four regions are West Midlands (UK), Randstad (Netherlands), Zealand (Denmark) and Västerbotten (Sweden). - To examine the origins and emergence of the integrative territorial strategies in their different territorial and institutional settings over time, the problems to which they responded, the solutions which they offered. - To develop a toolkit applicable in European regions. The project aims to critically analyse the emergence of integrative territorial strategies in the four stakeholders' regions that together represent a wide variety of territorial and institutional settings. Through literature reviews, quantitative and qualitative case study research carried out by researchers based in the four respective regions, intensive collaboration with the four stakeholders and regional workshops, the project aims to enhance the performance of integrative territorial strategies. An important result will be a toolkit to support policy makers in the four regions as well as in other regions elsewhere in Europe.

#### Gateway M2 URBAN AND REGIONAL PLANNING SYSTEMS: TRANSFORMATIONS, DISTINCTIVENESS AND POLICY STYLES

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The European Union constitutes a pivotal force within the evolution of territorial governance and spatial planning in member states of the EU. While it might easily be assumed that the global character of these changes are leading to a high degree of policy convergence, various studies concerning the Europeanization of domestic policies suggest that this is not the case. In common with observations from other areas of policymaking, most studies concerning the Europeanization of spatial planning in member states indicate that Europeanization processes are not leading to the convergence towards a particular model, but rather are resulting in the proliferation of a diverse set of approaches, processes, policies and outcomes. Some authors refer to this phenomenon as 'clustered Europeanization' (e.g. Goetz, 2006), and underpin their argument through an heterogeneous set of explanations, such as the similarities and differences that characterise the various European nations in terms of institutional structure, history and path dependency, culture, socio-economic conditions, and actor constellations (Stead & Cotella, 2011). An alternative way of exploring the clustering of Europeanization processes is to employ the notion of 'policy styles' and to analyse the role played by distinct clusters of politics, policies and governance across nation states (which are strongly influenced some of the contextual variables listed above) in influencing Europeanization processes. The notion of policy styles is not a new idea but has rarely been examined in relation to spatial planning (one of the few examples is Forester, 1984). In the early 1980s, for example, Richardson et al (1982) speculated about the existence of 'standard operating procedures for handling issues', 'different systems of decision-making' and 'different procedures for making societal decisions'. Other authors observed that high-level government goals and implementation preferences are not random but rather tend to cluster into favoured sets of ideas and instruments and are used over a wide range of policy-making contexts (e.g. Freeman, 1985; Howlett, 1991). In the context of the above discussion, this paper aims to explore the notion of policy styles related to spatial planning. More specifically, it elaborates on how the notion may prove useful in the analysis of the differential patterns of Europeanization that characterised the various EU member states and their spatial planning systems, and of its clustered dimension.

In doing so, the paper considers whether for example different stages of the policy process (e.g. agenda-setting, formulation, decision-making, implementation, evaluation) are subject to particular 'ways of operating' or rely on particular operating routines in different member states. Particular attention is devoted to communities of actors (and their characteristics) that influence these different stages, the extent to which these shape national policy styles, and the degree to which clusters of national policy styles across European member states are apparent and may be useful in exploring the differential Europeanization of spatial planning

# Gateway J1 THE TECHNOPOLE CAMPUS TULLN'S EFFECTS ON THE SURROUNDING REGION

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The technopole Campus Tulln's effects on the surrounding region The federal state of Lower Austria pursues a set of policies to stimulate innovation with two goals in mind: persisting in the competition between locations and benefiting from EU enlargement. A cornerstone of that set of policies is the extension of the state's technopoles. The technopole programme's goals are to stimulate innovation processes and to contribute to the creation of new technological knowledge and its application in the economy. The Campus Tulln technopole was created in 2006 as one of four technopoles in Lower Austria. The University and Research Centre Tulln (UFT), which is occupied by the University of Natural Resources and Life Sciences Vienna (BOKU) and the Austrian Institute of Technology (AIT), crucially invigorated the technopole in 2011. This article's goal is to demonstrate the UFT and the Campus Tulln's effects on the surrounding region and how those effects can be measured. The involved players have different goals and expectations regarding the research centre. BOKU and the AIT hope for high-quality research and (international) recognition in the scientific community, enabled by the excellent research conditions and synergies between the two institutions. The city of Tulln and the government of Lower Austria, for their part, aim at improving the positioning of the region as a place to do research. In addition, the creation of jobs for the highly qualified is important to them. They also seek a transfer of knowledge and technology from and to (regional and supra-regional) firms and an upgrade of educational institutions in the area. There are examples of institutions in other countries that have successfully combined academic and applied research for many years. Six of those institutions were analysed as reference projects. Our analysis shows that, depending on an institution's strategic orientation and its environment, either education, research or the transfer of knowledge have a preeminent position. In order to benefit from growth potential, for example through the attraction of technology-oriented companies to the region or growth of resident companies, wellfunctioning transfer mechanisms for knowledge and technology are imperative. Past experience suggests that a research centre can create growth effects if the knowledge it produces can be harnessed to benefit regional firms. Careful examination of the reference projects also showed that a technopole with its research institutions is an important player in a regional network, which influences the attractiveness and quality of a region. Three areas are particularly relevant in the context of the UFT: "Research and education", "knowledge and technology transfer" and "locational quality". In the area of research and education (joint) research projects and attractive educational offers contribute to the positioning as a renowned place of higher education. An attractive institution of higher education facilitates the attraction of highly qualified employees and increases students' demand for university places. Applied research and the cooperation with regional companies play a key role in the transfer of knowledge and technology. The UFT offers products and services to corporate clients and, within the framework of applied research projects, works on commercially relevant problems. Companies strive to stay competitive and have a constant demand for innovation. That demand can be met by the UFT's services, from which both the UFT and (regional) companies benefit. The positioning as a business location depends on the competitiveness of resident companies, which has a direct influence on the number of jobs and the quality of the workforce. Based on the relationships within the regional network, a tool to monitor the outcomes for the region can be built. A model of functional chains is used for the development of a (regional) monitoring system, which produces a set of impact and outcome indicators for the UFT and the technopole as a whole. The ongoing evaluation of those key indicators is essentially aimed at making the centre's regional effects transparent. Moreover, it enables a regular reflection on the observable regional effects and, in consequence, the creation of a strategic steering mechanism. The UFT as a key player on the campus Tulln technopole might produce regional effects in the areas of knowledge transfer and locational quality. The UFT's success helps to promote the campus, the city of Tulln and the state of Lower Austria as places of science and research both nationally and internationally. Apart from the UFT's impact on the region's image, effects on the campus's daily operations should not be neglected. A good image ultimately depends as much upon workers' loyalty to their employers and to the region as a whole and the commitment of the participating institutes to the Campus Tulln and Lower Austria as a place to undertake research.

# *Gateway F1* EVOLVING REGIONAL GOVERNANCE STRUCTURES FOR FUTURE EU COHESION POLICY: CROATIAN PERSPECTIVES

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European cohesion policy has been inspiring Croatian national policy makers for a decade in the attempt to organize and prepare the institutional structures for new ways of designing and implementing a modern regional development policy. Emphasis has been put to a large extent on the design of strategic development documents, while implementation remains problematic. As Croatia is becoming an EU member in July 2013, the future EU Cohesion policy becomes also important for national development policy. Through EU pre-accession funded projects, the first regional operational programmes have been drafted in the period 2001-2003. At that time, no NUTS classification of regions existed and focus was on counties, which today have NUTS III level status. Croatia's regional policy was rather fragmented and oriented towards areas of special concern such as war torn areas, island, hilly and mountainous areas. The process of creating an integrated regional policy framework including a law, by-laws and a national strategy started in 2003 and ended in May 2010. Since then, all counties were obliged to formulate 3 year integrated strategic programmes involving local stakeholders into partnerships. The process is designed according to a legally prescribed methodology that is based on EU programming and partnership principles. On NUTS II level, functioning as statistical regions, three coordination partnerships of county representatives meet and discuss joint project proposals to be submitted to the national level institutions. These in turn try to establish project pipelines on national level to be ready for EU structural funding. The entire process is promising, but is full of complex and intertwined problems on all governance levels, which significantly influences policy implementation. While policymakers and public administrations are thinking more of the efficiency of the system and its institutions, the regional and local stakeholders' and the research community's attention is more on effectiveness of the policy. In order to establish regional governance system that works, cooperation and coordinated actions of all sides is required. The main aim of this paper is to present the evolution of the partnership based regional development approach in Croatia across governance levels and to critically reflect on the outcomes of this process. It is about the creation of new governance structures and new ways of how institutions work. Many problems appear along the way, but some positive experiences can be presented and analysed as well. Methodologically, besides the respective literature review, also results from a recent survey and research study on experiences in regional development strategic planning in all Croatian counties will be presented.

#### Gateway C

# RECENT CHINESE AFFORDABLE HOUSING POLICIES AND THEIR SOCIO-SPATIAL IMPACTS: A CASE STUDY OF NANJING

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Since the adoption of economy reform policy, housing marketisation reform of China has been implemented sporadically. Along with housing reform achievement, housing problems in major cities in China have remained largely unsolved. During pre-housing reform, housing is considered as an area of consumption rather than a production industry, therefore the work unit and nation government undertook a heavy financial and management burden. Due to the lack of finance, urban housing reform introduced in 1980 proposed a strategy which encouraged the housing marketisation including housing privatization and commercialization. During the late 1980s and the 1990s many publicly owned houses were sold to their existing tenants or other public sector employees. Large numbers of new houses were built by commercial property developers for the emerging urban housing market. Housing market, it improved the housing condition and per capita living space of urban dwellers, but house price inflation in cities make housing inequality an acute problem. In response, the Chinese government has been formulating new affordable housing policies to tackle the soaring housing price

engendered by recent housing marketisation process. Affordable housing built with government support was identified as a key source of new housing for low- and middle-income groups who cannot afford their houses with the market price. The purpose of this paper is to evaluate the implications of recent affordable housing policies for the disadvantaged groups in China. It begins with a brief review of the transformation of the urban housing market and affordable housing policy in China from 1978 to 2007, and then examines the socio-spatial impact of affordable housing in two dimensions: job accessibly and neighborhood quality. It concludes that although affordable housing policies has brought significant changes to the housing provision system and improved many urban poor's living conditions, but critically bringing new spatial and social inequalities to the household living in the affordable housing area. The findings of this paper suggest that there is a general disadvantage to all residents in affordable housing area because of the location of affordable housing area and concentration of low income households. If China's current concentrated-construction of affordable housing area, it is conceivable that the more disadvantaged household will benefit from the affordable housing area, it is conceivable that the more disadvantaged household will benefit from the affordable housing policies. The paper relies on quantitative analysis of four affordable housing areas in Nanjing.

### Gateway L1 CONCEPTUALISING CLUSTERS AS DYNAMIC AND PATH-DEPENDENT POOLS OF SKILLS

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Clusters and related organising phenomena - innovative milieux, regions, regional innovation systems, learning regions, and technology districts - have attracted the attention of academics, practitioners and policy makers in the past two decades. Although the significance of clusters has been occasionally questioned (Shin Et Al., 2006), extant research is replete with normative discussions and empirical studies evidencing the capacity of such phenomena to promote and sustain local, regional and national development and competitiveness (Scott & Storper, 2003; Belussi, 2005; Dohse, 2007; Petruzzelli Et Al., 2007; Rodriguez-Pose & Crescenzi, 2008). The cluster thesis, especially extant research on clusters within the planning literatures and regional studies, tends to privilege the study of successful locations and competitiveness. Conceptualisations of economic success, drivers and consequences of established clusters predominate, prompting Lorenzen (2005) to exclaim 'What the world needs now is probably not another study of a successful cluster' (p. 204). Despite their growing influence, explicit links to resource-, dynamic capability-, and knowledge-based theories are relatively rarer and of more recent origin in our discipline. Scholars intrigued by matters of regional dynamics, change, competitiveness, and development rarely contest the legitimacy of analysis of clusters as sets of resources, capabilities, and competencies. In this paper, we problematise this broad acceptance of the imaginary of cluster-as-resources and highlight some limitations on existing units of analysis and observation. Instead we advocate an alternative conceptualisation of clusters as pools of dynamic, path dependent skills. Unconventional as it may seem, this conceptualisation is empirically demonstrated to be more adequately equipped to explain long-term, processual developments in mature manufacturing locations such as UK's West Midlands engineering cluster and also accounts for a broad constellation of socio-historic factors. The paper draws from empirical findings from a two-year long ongoing multi-pronged qualitative study of the UK's West Midlands region and its engineeringmanufacturing clusters. The data collection includes interviews with private, public, and third sector stakeholders, senior managers of small and medium sized enterprises as well as big multinationals, privatepublic sector partnership stakeholders, councillors, as well as participant observation, attendance at supply chain events, workshops, documentary analysis, and archival research of Coventry's industrial history for over a thousand years. The data suggests the key role played by a pool of organic, dynamic skills resident within a dense corridor of small and medium sized enterprises that demonstrate a range of absorptive and adaptive capacities and are instrumental in sustaining and transforming economic activity in the region through industrial lifecycles and transitions. Narratives also highlight the long term nature of skill accumulation and the dynamic, yet path dependent processes at work in relation to skill development and upgrading. A longitudinal examination of the factors that enable such a cluster configuration suggest that this has historical precedent in Coventry's economic history dating over a thousand years with a core pool of skills responsible for enabling a succession of clusters, trade and industrial, throughout history, successfully weathering economic cycles of boom and bust while reinventing and sustaining themselves through transitions. This paper contributes to extending current discourses in regional studies literature to be inclusive of processual factors and to examine macro-level issues not immediately relevant to competitiveness. We shy away from combative explanations of cluster competitiveness and success and instead focus on sustainability, resilience, challenges, and failures including economic, socio-psychological, and civic perspectives. We also make an epistemic contribution through archival analysis which explains the evolutionary nature of cluster configuration.

### Gateway K LOCALIZED LEARNING AND GLOBAL KNOWLEDGE NETWORKS IN EMERGING INDUSTRIES

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This paper examines the role of global knowledge flows in the emergence of new industries. Concurrently with the increasing awareness of the key role knowledge play in economic development, an increasing interest has appeared in understanding to what degree knowledge generation is localized. In particular in relation to an increased globalization of economic activity, including increased 'knowledge circulation' over large geographical distances, it has become of great interest to understand the interplay between localized learning and global knowledge flows. However, when the question of localized learning (including local buzz) and global channels of knowledge is applied to emerging industries our understanding is very limited and empirical evidence is sporadic. Some scholars have argued that innovative activity tend to be more clustered in the early stage of the industry life cycle (Audretsch and Feldman, 1996). The logic behind this argument is that the early stage is characterized by high degrees of uncertainty and that the tacit and complex character of knowledge requires face-to-face contact facilitated by geographical proximity. Others have shown that global knowledge channels play an important role in strengthening firms' innovative capability, also in emerging industries. The latter has been shown for the relatively young biotechnology industry in Canada (Gertler and Levitte, 2005). More recently it has been shown that regional knowledge bases have a great impact on where new industries emerge (Tanner, 2011). For instance, Tanner has shown that new industries tend to emerge where the regional knowledge base is technologically related (i.e. where there are high levels of cognitive proximity) to the knowledge base of the emerging industry. This may indicate that local knowledge resources play an important role in the emergence of new industries, but it is yet uncertain what impact, if any, global channels of knowledge have at the very early stage of industry emergence and early development. This paper investigates to what degree a particular emerging industry, namely the fuel cell industry, rely on local knowledge resources and to what degree the emerging fuel cell industry depends on a global knowledge network.

# Gateway A1 SUCCESS FACTORS FOR INTER-MUNICIPAL COOPERATION

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Public services are currently receiving a great deal of attention. Local government has to invest and innovate in order to provide citizens with high-quality services. This can mean digitalization for the purpose of simplifying procedures (such as those relating to the input of citizens' personal data), increasing the effectiveness of production chains, or simply improving service quality. As Dutch examples frequently show, the required investments and innovations are often simply too expensive to be financed single-handedly, even by large public authorities. Moreover, we are living in an increasingly globalized world. The world is getting smaller; distances have become easier to overcome; competition has become global. As Friedman has argued, 'the world is flat' (Friedman, 2007). In addition to the substantive pressures mentioned above, this has also resulted in constant pressure on prices and, consequently, on the funds available to cover the costs. Local government is experiencing similar pressures. As a result, many actors are joining forces to provide the desired quality at affordable prices. Improvements in information technology (IT) have made it possible to scale up the administrative level in order to achieve efficiency advantages, without losing touch with the operational level (reduced coordination costs). A Dutch study (Strikwerda, 2003) that was undertaken to gain insight into the emergence of a specific form of internal collaboration, shared service centres (SSCs), shows that internal collaborations have emerged as a solution to the problem of ever-decreasing margins, which has forced companies to reduce the slack in value chains and make use of improved opportunities in IT. The study covers a wide range of organizations in the private sector, the non-profit sector and government. Conclusions such as these appear to be equally valid for SSCs, which envisage similar aims at an inter-organizational level. As a result, the Dutch public authorities have been under constant pressure over the last few decades. This has included administrative scaling (classification) problems, particularly in large cities; and substantive aims, such as those surrounding the organization of physical safety (safety regions), ambitions relating to the provision of quality services (basic registrations), and regulation and enforcement (notably the Dutch Environmental Permitting (General Provisions) Act, or WABO; Regional Operational Services, or RUD; and environmental law). Organizations have felt too small to be able to cope with the challenges they face, and to accomplish the necessary innovations. Municipalities are under constant pressure to change and innovate, and to scale up for this purpose via mergers (reorganization) and collaborations. As a result, efficiency-focused alliances have emerged, along with networks that involve various governance mechanisms that target complex social issues (Sorensen & Torfing, 2008). A 2005 trend study that was conducted on behalf of the Dutch Ministry of Internal Affairs (Pröpper et al., 2005) shows a growing number of such alliances. Ringeling (2009) describes the inevitability and complexity of this development, its major causes being, among others, the intensification of government policy and the rationalization of policymaking. Along with the need for substantive innovation, there is also political and social pressure to renew the structures of alliances. The demand that administrative control in such alliances should be subject to democratic legitimacy (Traag, 1993) means that there is every reason to develop new governance alliance structures. Such developments have led to a need to examine in greater depth the factors that lie behind successful inter-municipal cooperation. In this paper, I will classify the various success factors. The objective of the research is not to examine the nature of innovations or alliances, although this would certainly be interesting; rather, the aim is to present an overview of the conditions under which alliances appear to succeed. In doing so, my intention is to steer away from any discussion of the Traditional Public Administration, New Public Management or network control models. Instead, the objective is to develop a practical and sustainable model. This paper specifies conditions for successful cooperation. In this context, cooperation means that public bodies (municipalities, in this case study) undertake integrated activities with the purpose of generating improved - i.e. greater - strategic, policy-related or operational added value, or the same added value at a lower cost for citizens. Cooperation is defined as successful when the public bodies involved indicate that this is the case and can justify why cooperation has been successful. A systematic approach was taken to the selected cases, by making an up-front analysis of the collaborative relationships maintained by the public bodies in question. This paper reflects the characteristics of practice-based theoretical research (Otto, 2000), or a praxeological table (Brasz. 1962,1976,1986). In his doctoral thesis, Otto defines the development of practice-based theory as a search process in which two learning processes are connected; namely, personal reflection with the development of knowledge and skills. Brasz, in turn, has devoted a great deal of attention to the applicability and usefulness of research into public administration in daily practice. Much of his research has been of benefit to practictioners. His greatest academic achievement was the development of a unique methodology for public administration purposes. His work on a 'praxeological table' is particularly renowned. This instrument enables public administration specialists to improve the quality of arguments used in public debates and policymaking. In the words of Goudsblom (Goudsblom, 1974, 1983), relevance and scope are important, while precision and systematics are less so. This paper is structured as follows. The second section outlines the research aims and how the case material and the existing theoretical principles regarding conditions for success were tackled. This formed the basis to creating the model. The model was also tested on other cases. The third section presents the conclusions of the research, and sets out potential avenues for further research.

#### Gateway K2 TWO STORIES OF REGIONAL RESILIENCE - THE TWO TRANSFORMATIONS OF OULU, FINLAND

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The dynamic evolution of knowledge-intensive clusters and the transformation processes of regional clusters have not been studied in greater depth despite the vast literature on regional clusters. The growing research stream of regional resilience in knowledge-based economies is closely related and complementary to the analysis of the trajectory of knowledge-intensive clusters over time. In addition to the need of further refining the theory on the dynamic evolution of regional clusters over time and regional resilience, there is room for detailed case studies analyzing the dynamic evolution of clusters and regional resilience - and broadening and deepening the understanding of knowledge-intensive clusters and regions. Oulu is a non-metropolitan city located in northern Finland. The development in Oulu demonstrates an innovation-based transformation process of its industrial core in two waves. Up to the 1970s, the development of the Oulu Region followed a typical path in Finnish terms, with an industrial structure based on the development of traditional industries. Starting in the 1980's, the Oulu region experienced a rapid conversion from a traditional industrial region into an

internationally-known centre of advanced technologies and world-class companies, labelled as the Oulu Phenomenon. A transformation from traditional industry to high technology in the 1980s and 1990s was stagnated in the early 2000s. The Oulu region includes, however, a strong concentration of accumulated expertise especially in the ICT sector. Oulu is currently experiencing another transformation of its industry from ICT to new knowledge-based industries. Oulu has diversified its activities into several fields outside the dominant ICT sector although the critical mass of the other sectors has not been fully reached yet. The most promising fields of diversification attempts including e.g. the emerging printed intelligence cluster, originating largely from the applied research on printed electronics in the Oulu region since the late 1980s. Throughout the latest decades, the Oulu region has a proven track record of rising population and high-tech employment despite the opposite trend in North Finland as a whole. What, then, explains the regional resilience of the Oulu region? Are there any mechanisms of cluster transformation to be identified? What is really happening in the knowledge-based cluster in the transformation process? Our empirical case study contributes to the literature of knowledge-intensive clusters and regional resilience by providing a longitudinal analysis of the two major waves of industrial development in the Oulu region: the transformation from traditional industries to ICT driven high technology industries, followed by the current transformation process from ICT industries to new knowledge-based industries. We are specifically interested in the determinants of resilience in non-metropolitan regions. We describe how and to what extent the resilience capabilities of the Oulu region have changed over time. From the viewpoint of regional resilience, we analyze the similarities and differences between the two transformation stories. Finally, we provide a discussion on the generalisation of our findings.

#### Gateway N

# **REGIONAL AIRPORTS AND REGIONAL GROWTH: WHICH WAY DOES THE CAUSALITY RUN?**

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The role of airports has become increasingly important with globalization. Air traffic provides a fast and reliable way to transfer individuals and goods from one place to another. The high-quality of airline service matters to firms because it facilitates face-to-face contacts with customers and business collaborators. Hence, it supports the international competitiveness of firms and regions, and forms a crucial part of the well-functioning transportation infrastructure.

In peripheral regions, the air traffic may decrease the negative effects of long distances. Easy accessibility attracts firms and other economic activity to the region and stimulates employment at established firms. Earlier studies and surveys indicate clearly that access to air transportation has an important effect on location decisions of many businesses. A well-developed transport infrastructure can be seen as a facilitator that allows the economic potential of a region to be realized. The provision of transportation does not, however, automatically lead to economic growth. It may also be the other way round: economic development leads to better transport infrastructure and accessibility, stressing demand side elements.

This paper aims to shed further light on the relationship between regional airports and economic performance. We ask whether accessibility is a key factor to economic success, or rather a consequence of it; and especially what is the role of accessibility and air traffic in remote areas. In order to test the relative importance of various effects, the Granger non-causality method in a panel framework is applied. The Granger method exploits the fact that in time series there is temporal ordering and effects cannot occur before causes. The introduction of a panel data dimension permits the use of both cross-sectional and time series information to test causality relationships. The panel causal tests are based on a nested testing procedure which has three main steps related to the homogeneous non-causality (HNC), homogeneous causality (HC) and heterogeneous non-causality (HENC) hypotheses. In our case, causality is expected to be heterogeneous: it is anticipated to vary according to peripherality, since especially remote regions need to be accessible via air connections.

The empirical analysis is based on European level annual data from 86 regions and 13 countries on air traffic and regional economic performance in the period 1991-2010. A set of variables were used to measure air traffic and regional economic performance. As a first step in exploring the bi-directional Granger causality, the homogenous non-causality hypothesis was assessed. The results allowed us to reject this hypothesis: for at least some regions (and possible all), there is statistical evidence of Granger causality from air traffic to regional growth. The evidence of the opposite direction of causality - from regional development to air traffic - was only partial. Given the rejection of the HNC hypothesis, the homogeneous causality HC hypothesis was tested. When testing causality from air traffic to regional growth, the results showed significant test statistics, while they were

non-significant when testing causality from regional growth to air traffic. This implies that there are causal processes from air traffic to regional growth, but these processes are not uniform, while in the opposite case the causal process from regional growth to air traffic is homogenous.

The final step was to test the heterogeneous non-causality hypotheses. For this purpose, the regions were categorized into three groups of equal size according to their peripherality. The results showed significant causality in peripheral regions and indicative causality in intermediate regions, while in core regions no significant causality was found. The conclusion is that peripherality matters: the more remote the region is the more important for it is to have efficient air connections.

Consequently, our results based on panel Granger-tests suggest that accessibility and air traffic is crucial for regional growth especially in remote areas. Although this result was consistently obtained, a word of warning is still needed. Evaluating the character of the causal relationship between two variables x and y is never without problems. Although Granger causality represents an advance towards uncovering true causal processes, it is indicative rather than confirmatory. The apparent causation may be due to some omitted variables, or lagged x values may in fact be in response to anticipated future y values. This is a possibility future research should especially pay attention.

# Gateway NI HUB AIRPORTS AND THE KNOWLEDGE ECONOMY. A RELATIONAL PERSPECTIVE.

### Alain Thierstein, Technical University of Munich, GERMANY

Knowledge is a key driver for the competitiveness of companies, cities and regions. For firms, knowledge is an important resource for innovation, which, in turn, is one of the mayor drivers of economic growth. The process of knowledge creation requires a dynamic interplay between tacit and explicit forms of knowledge as well as strong interaction between people within organizations and between them. Therefore, knowledge intensive firms require access to information and the ability to acquire experienced based knowledge by face-to-face contacts. This conceptual paper introduces a combined relational framework of physical and non-physical accessibility and looks at the specific role of hub airports for knowledge intensive firms. Accessibility is considered in a physical and non-physical dimension. Physical accessibility enables the movement of people and establishes face-to-face contacts; non-physical accessibility facilitates the exchange of information. Physical accessibility can be associated with network economies and agglomeration economies. Whereas rail and road accessibility work on the scale of agglomerations, accessibility by air enables network links to worldwide locations. In general, accessibility is an externality that enables firms to reduce costs and enlarge their market areas and, therefore, to realise economies of scale and economies of scope, which in turn generate economic growth. Although, relations between networks of cities and agglomeration effects are discussed broadly, physical infrastructure – especially the role of hub airports – and spatial connectivity are still not integrated adequately into the concept of externalities within knowledge production.

# Gateway UF1 PROSPECTS FOR URBAN FRINGE GOVERNANCE

# Kevin Thomas, Leeds Metropolitan University, UK

This paper explores the potential for constructing a governance model for urban fringes. Using as a starting point various attempts to create governance models for cities, the paper asks whether these can provide a foundation for dealing with the urban fringe. Perceptions of both the functions and interdependencies of cities and their hinterlands have become more sophisticated in recent years but governance responses that incorporate urban fringes are very limited so far, despite growing evidence of the mutual dependence of cities and urban fringes. Changes to the perception of the UF include notions of multifunctionality, of urban-rural interdependencies, of the role of the UF in maintaining the sustainability of cities and their related role in supporting resilience of cities to future environmental shocks. Sometimes the role of the UF in supporting urban areas is expressed in terms of 'eco-system services', a broad term which enables issues such as health and wellbeing support for urban populations etc. to be incorporated. Policy interest in the city region scale of governance has grown in recent years and this necessarily involves attention to urban fringes, albeit as an indirect motivation. An important policy driver behind the new thinking has been the complementary role that

the fringe may perform for urban economies, in particular their potential to bolster the competitiveness of cities in Europe (ESDP, 1999). This perception seems strongest at city region scale because the 'functional urban region' is often seen as central for national growth strategies (World Bank, OECD, PLUREL, METREX). Mirroring the more nuanced understanding of the possibilities of urban fringes has been the promotion of more sophisticated policy and governance interventions, e.g. green infrastructure instead of green belts (Thomas & Littlewood, 2010) and the redefinition of UF functions and services (Natural England, 2007). Some institutional re-ordering, often reflecting 'soft governance' principles (Allmendinger & Haughton, 2011), has been observed in the way policies are produced for UFs and some new local interventions are evident. New tools for addressing these reframed challenges include new ways of valorising UF 'assets' and new ways to envisage and intervene through policy, e.g. using 'green infrastructure' instead of green belts. Spatial planning may also have an important role in transmitting these policy ideas.

#### Gateway J1

# STORIES BEHIND SCIENCE PARKS: RESOURCES AND NETWORKING IN OPTICAL VALLEY OF CHINA, WUHAN

#### Julie Tian Miao, University College London, UK

Industrial and science parks of various kinds have been relied on heavily in China to boost innovation and leverage regional development. Nevertheless, due to defective political audit and poor data availability in China, the real contributions of these artificial clusters to achieve the government goals remain unclear. This paper thus aims to assess the role of science parks as instruments of innovation promotion and regional development in China, assisted by the emerging school of innovation system theory. More specifically, this study explores the development of the optoelectronics industry in the so-called Optics Valley of China, Wuhan (OVC), and investigates the effects of geographical proximity and different ownerships on companies: 1) internal innovation resources, 2) external networking activities, and 3) innovation performances. The results show that in general, contrary to the initial predictions, the tangible input and output linkages of companies in OVC are dominant by national level transactions over both the local and the international levels, regardless the companies' locations and ownerships, which implies an oblique position of Central China in the global value chain. On the other hand, the intangible local networks between the companies and the research and higher education institutes are marginal, while the companies' interactions with the local government are crucial for their survival. Regarding the effect of companies' ownerships, it is surprising to notice that the state and collective controlled companies surpass the private ones on all the above three dimensions. For the added-value of geographical proximity, it is found that the clustered companies exhibit marginally better innovation performances and deeper local embeddedness than those scattered ones, but the significant differences existed among the clustered companies suggest that the origins and develop trajectories of the science parks should be taken into consideration when evaluating their contributions.

#### Gateway M THE GOVERNANCE OF ECONOMIC DEVELOPMENT IN ENGLAND

# John Tomaney, Newcastle University, UK Andy Pike, Newcastle University, UK Anja McCarthy, Newcastle University, UK

The governance of economic development in the UK is undergoing radical change, including the destruction of regional institutions and a new - if ambiguous - commitment to 'localism'. This paper describes and analyses the shifts in the context of debates about regionalism and the changing nature of the state.

#### Gateway L2

# CULTURE, IDENTITY AND CREATIVITY IN DEVELOPMENT STRATEGIES OF SMALL AND MEDIUM-SIZED CITIES IN NON-METROPOLITAN AREAS

#### Elisabete Tomaz, ISCTE-University Institute of Lisbon, PORTUGAL

Since the 1980s, culture and creativity were introduced in the urban policy agenda of several European cities, being increasingly recognized in promoting competitiveness and sustainable development. However, academic literature and public policy documents have been largely oriented to the study of large cities and metropolis, neglecting the importance and innovative potential of smaller cities. The theoretical and political models and the measurement techniques usually used are adapted to places with some level of critical mass, density, agglomeration economies and diversity, which are inappropriate to the reality of the small and medium-sized cities. These communities are facing particular changes and challenges but they have also an important role in their territorial system, for example, as mediators between centre and the periphery, the urban and the rural, the local and the global. In this context, several small and medium-sized cities in non-metropolitan areas started to launch cultural and creative initiatives, trying to survive and prosper in a "post-industrial" or "post-rural" economy. With this purpose, local governments seek to generate an attractive and liveable environment for visitors and residents, business and other organizations through the creation of physical and economic conditions but also through the 'active production of places' (Harvey, 1989: 295). These contemporary placemaking processes are drawing on the valorisation and promotion of the distinctive attributes and assets as well as the exploitation of specific aspects of local culture and identity. Besides that, governance and territorial embeddedness are also key factors to be considered to reverse current development trends and to contribute to the design of public policies for smaller cities and towns. In this context, the present investigation is based on literature review and the examination of the different strategies based on culture and creativity adopted by small and medium-sized cities, through a case-study research methodology. The objective is to establish a typology of creative-based strategies through the analysis of the definitions adopted by regional and local authorities as well as the justifications and planning instruments used that reflect different priority goals or purposes. As a result, it is our intention to contribute to the theoretical thinking and knowledge base about the crucial factors for sustainable development and the capacity of the creative issue to impulse a sort of leapfrogging in terms of social and economic development for small and midsize towns. Reference: HARVEY, D. (1989) The Condition.

#### Gateway G2

# TOWARD A PRINCIPLE OF CONTEMPORARY URBANITY: HOUSING ENSAMBLES AND CONNECTIVE OPEN SPACES FROM PRODUCT TO RESOURCE

#### Chiara Toscani, Politecnico of Milan, ITALY

A crucial issue, which applies to new developments on the outskirts of towns and settlements within the territory of a more widespread, is the identification of a new condition of urbanity which doesn't respond to a principle borrowed from the settlement and morphological consolidated city but is the result of a changed way of living. If this principle is clearly visible within the consolidated city through the establishment of a recognized connective tissue, roads, squares, that define a recognizable and acceptable collective character, this becomes so much less widespread in the landscape of the city where the connection rules and settlement are weaker, in any case different. This loss of value of the open space is evident, especially in the construction of figures that define the pore systems of the urban fabric coupling the intermediate scale. From the ordinary reading of the landscape of the contemporary city and its widespread production mechanisms can emerge figures, recurring relationships, through which then seize develop some design strategies. The density of the Italian territory is watching with concern to this expansion of mediocrity, unplanned, where every form of public space and environmental quality disappears in favor of just two requirements: accessibility and privacy. The streets of the ancient city, rather than simple means of travel, were the elements that were based on urban design, but now the fabric of urban sprawl is a collage of small jobs grew by a simple summation of low-density residential enclaves, shopping malls, specialized complex entertainment, dedicated logistics citadels. The product of this constant sum of enclaves, residential and other functions, is wasteful sequence of spaces, as parking lots, open spaces that are required to operate the contemporary city, that can become a resource, given their essence from the interstitial and ambivalent between inside and outside of these enclaves, a sort of contemporary urban pochè. Especially in the past few years, a new generation of housing enasambles has emerged, building a new density and a different sociality. Despite great differences in ap-parences. these new complexes have two important characterics in common: the new open space, created by the arrangement of the buildings, which gives the ensambles its architectural identity, and parking lots and parking lots as a system interface with the infrastructure and landscape. A new principle of urbanity can arise from the interpretation of the shape of these connection spaces, within the residential development, as part of more extensive morphological that determins the quality of the urban landscape, identifying them as a place of change of design strategies and regulations, according to criteria of economic and environmental sustainability. This research has to find different strategies from urban infill to rethink the very concept of a contemporary master plan, defined more from the principle devices than as an instrument of control and limitation of function, a sort of frame generator of significant interactions between the permanence of public space and building elements.

#### Gateway J THE ROLE OF LOCAL SUPPLIERS AMONG THE LOCATION FACTORS IN THE AUTOMOTIVE INDUSTRY

# Tamas Toth, Szechenyi Istvan University, HUNGARY Janos Rechnitzer, Szechenyi Istvan University, HUNGARY

The location theories used by the corporate investment decisions have nowadays radically transformed. The penetration of the high-tech industries and the appreciation of the human resources have created new aspects by making of location decisions, and the expansion of the R&D activities fundamentally overwrote the models. The role of the traditional measurable so-called hard factors (infrastructure, tax rates) have reduced and the soft factors (human resources, development of supply chain) have increased by the decision makers. Because of the market innovation competition the corporations are focusing not only on cost savings but they increasingly try to raise their market competitiveness on the base of local resources (human and material as well). An essential part of the mentioned resource is on the one hand the human capital on the other hand the development of local supplier network which can greatly define the regional competitiveness. On the area of the human resources is relevant not only the wage of the unqualified blue-collar workers rather comes into view the quality of the qualified white-collar workers. On the latter group signifies the standard of the education booth on medium and high level and the activity of the research centres and the universities. We think it is important to highlight that those regions can have an advantageous position by the locations choice which are able to hold the salaries of the qualified workers on a low level and beside that the white-collar basis can show off prominent innovation activity. The level of the local supplier network development is also a key issue by the investment decisions. The development of the region is an interest of not only the private sector, to mark the development path and follow up the process, it is needed the cooperation of the private and public sectors. In the regions where the traded corporations of the automotive industry can be found, the developing of local supplier network (nontraded sector) has a priority because the firms in the basis sector are interested in seeking the local partners. As the experiences show the non-traded sector cannot meet the requirements of the customers in the Central and Eastern Europe region but are able to integrate to lower levels of the supply chain as a second or third round supplier. In our presentation we would like to collect the location factors and examine the effect of the development of local supply chain and local government supports on the location choice. We argue that the bottom-up strategy used by the local developments can attract the FDI and generates a positive multiplier effect.

#### *Gateway H1* SOCIAL NETWORK SITES AS RESOURCES OF INFORMATION ON SPATIAL DIFFERENCES RELATED TO ICTS

#### Péter Tóth, Széchenyi István University, HUNGARY

Since its early identification information society has a wide range of approaches from different disciplines. From early thinkers with comprehensive and speculative ideas to recent methodologies the information society has become a widely known and measurable phenomenon. Although this information is mostly available on the national level, below that information for comparison is scarce. In this presentation we would like to identify and map the digital zones of Hungary by using available data about the operation and description of the informational society. The basic idea was that - similarly to the regional distribution of infrastructure indicators of previous decades - the values of the informational society's indicators will outline certain, geographically close municipality groups, having certain values, which can be used for calculating regional differences. The main source of information was one of the most popular social network site in Hungary.

### Alan Townsend, University of Durham, UK

Important as city-regions are, it may be only academics who can easily see this. Certainly, politicians fail to recognise them in different countries' governance arrangements and policy decisions. The politicians may many have other geographical scales as their territorial priorities. In particular, central or "core" cities may still dominate attention; a new round of European Structural Fund programmes, in effect from 2014, will adopt a special focus on cities, while 'boosterism' in the USA may exaggerate the potential of central cities to a dangerous degree. The paper agrees, however, with OECD statements that city-regional and metropolitan areas are increasingly the focus of growth and adjustment challenges at the sub-national level; "Co-ordination failures between public actors at the city-regional level are a major obstacle that must be addressed in pursuit of balanced growth and the tackling of inter-regional disparities". Models of city regional co-ordination and collaboration are diverse, with different arrangements in different constitutional contexts. Of the 74 Metropolitan Regions identified by OECD, many lack a unified tier of government and may contain over 50 areas of local government, often "communes" in the European context. Any joint arrangements can be vulnerable to change over time. For example, a recent transport initiative involved a reorganisation of the Ile de France's governance arrangements to create a Greater Paris along the lines of Greater London, but the proposal was dropped when it proved unpopular with some mayors and councils in the region. It is argued that similar reactions underlie the slow adoption of city-regions in place of Regions in England. Following the abolition of the six Metropolitan Councils of England (1974-84), the government made increased use of 8 Regions outside London, on average the largest in the EU. Following the success of restoring a Greater London Council, a review of Sub-National Governance (2007) was faced with a conflict of opinion between the Regions and cityregions, met by eventually adding provision for voluntary working partnerships across city-regions and some other sub-regions. Many forms of governance for these areas were formulated, including directly elected cityregion mayors. The election of a Coalition Government in 2010 led to the recent abandonment of all Regional institutions and their partial replacement by 39 Local Enterprise Partnerships (LEPs), some embracing the former Metropolitan Councils, and 3 using the words "City Region" in their official titles. However, being born in a period of severe financial restraint in central and local government, LEPs have as yet very few powers. Although natural areas for strategic planning, individual local authorities and boroughs have nothing but a new "duty to co-operate" to offset a current presumption toward "localism" in decision-making. Much of the policy-running for city-regions of the last decade has been made by the "Core Cities Group", representing the 8 second-order city local authorities and not the wider city-regions. The paper will note the author's previous joint research (with A.G.Champion) that the latter have performed better than the former in employment terms over the period to 2010. Nonetheless, government proposals of late-2011 (H M Government, Unlocking Growth in Cities) concentrated their offer of greater freedom and support for cities, to compete better on the European stage, to the 8 members of the Core Cities Group. These are included in a decision to hold a public referendum on these 8 and 4 others to have elected mayors. National presentation of the policy has been in terms of the Cities themselves, with a little attention to wider benefits to their regions, but studied and total avoidance of the term "city-region". Academic disappointment would have been less if we had been aware of the underlying principles of local government. It appears that a highly political government has been aware of the reactions of councillors from areas surrounding cities, who are well aware that they are more likely to be re-elected if they stick to the needs of their local electorate and were not elected to service other areas; they are also aware of the more localist agenda inviting the setting up of new planning governance for neighbourhoods and business areas. It is true that the smaller print of the government document does show a fuzzy regard for the minimum of strategic co-ordination of say transport across wider areas, as the lowest common denominator of practice internationally. The LEPs do have the potential, with more legislation, to provide the strategic co-ordination which we would regard as necessary. However, parlance in journals like The Economist is proceeding as if some "underbounded" cities could remain governed like that for ever.

### Gateway H1 PAN-EUROPEAN DIGITAL NETWORKS: A SPATIAL PERSPECTIVE

# Emmanouil Tranos, VU University, NETHERLANDS Peter Nijkamp, VU University, NETHERLANDS

Although infrastructure was always at the forefront of urban and regional analysis, this is not the case for digital infrastructure. Indeed, the digital revolution and the emergence of the digital economy did not 'revolutionize' the way spatial scientists approach digital infrastructure for various reasons, including the non-tangible nature of such infrastructure and also the lack of relevant data. However, recent studies have highlighted the need for urban and regional scientists to turn their focus to such digital infrastructure due to the spatiality of such infrastructural systems. Indeed, just like any other form of more 'traditional' infrastructure, digital infrastructure has a symbiotic relationship with space and economic activity. Using an extensive new pan-European dataset, which captures the IP (Internet Protocol) city-to-city networks, we are aiming to study the spatiality of the digital infrastructure, upon which the Internet function is based. Just like other infrastructural networks, IP networks tend to agglomerate in specific regions creating important hubs and gateways. Using tools from the network analysis research field, this pattern will be highlighted here. Going a step further, the network structure of this system will be depicted. Using community detection algorithms, we will illustrate the spatiality of such infrastructure and the creation of robust over time network communities. Finally, we will link the network space of the IP infrastructure with regional space by modelling the socio-economic and geographic factors that determine the IP concentration. The use of spatial econometrics will enable us to understand and evaluate the role that spatial dependency plays in the distribution of digital infrastructure.

### Gateway A1

# APPLICATION OF SPATIAL ECONOMETRIC APPROACH IN THE EVALUATION OF RURAL DEVELOPMENT POLICY; THE CASE OF MEASURE MODERNISATION OF AGRICULTURAL HOLDINGS

# Tanja Travnikar, University of Ljubljana, SLOVENIA Luka Juvanèiè, University of Ljubljana, SLOVENIA

With the total area of 20.273 km2 Slovenia is a rather small European country. The administrative organization of Slovenia is structured on two level: national and local. The basic unit of the local self-government is municipality (NUTS 5). Slovenia with 210 municipalities is divided into 12 development regions at the NUTS 3 level. They have no additional administrative or regulatory function, the function is just statistical. According to the Eurostat nomenclature, the prevailing part of the country territory is characterised as predominantly rural areas. Development gap between these areas and the rest of the country (characterised as intermediate areas) is increasing, which is a result of various factors, such as: difficult (natural and structural) conditions for farming, remoteness, poorly developed infrastructure, economic downturn accompanied by shrinking off-farm employment opportunities, negative demographic trends etc., all being obvious drivers influencing rural development in Slovenia. In territorial sense, the process of CAP RD programming, consultation, and implementation is taking place only at the national level. This inevitably affects the institutional setup of rural development policy in the country. The key institution responsible for addressing rural development problems is the Ministry of Agriculture, Forestry and Food (MAFF), which can also be considered as central institutional player in the RDP design in Slovenia. In the design process, MAFF was responsible for drafting, preparation and public consultation on RDP, and for submission and negotiation of the document with the European Commission. Tasks of MAFF also include establishment and maintenance of the monitoring system, whereas the responsibilities concerning implementation of RDP measures are carries out by the Paying Agency, an institution affiliated with MAFF. Furthermore, several ministries and other governmental institutions are represented in the RDP Monitoring Committee, however, only few of these have exercised their right to actively participate in the design of RDP. Selected measure for evaluation of rural development policy with application of spatial econometric will be measure 121 - Modernisation of agricultural holdings. Low labour productivity is to a great extent a result of unfavourable agricultural holding size structure and low specialisation level and frequently by out-dated fixed assets. The improvement of the competitiveness of agriculture is closely related to the investments in fixed assets on agricultural holdings providing better utilisation of production factors and better labour productivity. Particularly on smaller holdings the compliance of the facilities with the requirements of the newly introduced standard on animal welfare is problematic. Additionally, in Slovenia great dependence on natural conditions has been registered, which additionally diminishes the competitiveness of the agricultural

sector. In future, the adaptation to the new climate conditions shall play a key role in further development of agricultural sector. The measure is aimed at increasing the competitiveness of the agricultural sector, this shall not cause environmental pollution, biodiversity deterioration, habitat loss or decreased natural and landscape diversity. The main problems are small farms accompanied by low productivity. The great need is modernization for which is intended a lot of money. Main specificities of measure design compared to EU measure description are: - tenders are sector-specific (eg. pig breeding, fruit production), or target group specific (eg. investments carried out by young farmers) - two-step procedure for selection of the projects: (i) scoring of applications, applications below the minimum threshold are rejected; (ii) approval of projects according to the 'first come first served' - different co-financing rates according to the type of investment (eg. lower co-financing rate for the purchase of agricultural machinery), location of investment (higher co-financing in LFAs), or characteristics of the beneficiary (eg. Higher co-financing for young farmers) Data were supplied by Agency for Agricultural Markets and Rural Development which is responsible for data collection. Database includes all agricultural households with support, which means that data are arrange on individual level. Database contains a large number of variables. Also, the relevant secondary data which are aggregated at municipality level will be used. The analysis will be at municipality level. We have already aggregated the individual applications at municipality level and over time - the data are from 2008,2009 and 2010. Here is a list of dependent variables that are relevant: Y1 = The percentage of accepted applications per municipality Y2 = Amount of expenditure per hectare If we take into consideration also CMEF; Impact indicators, the following dependent variables are also relevant: Y3 = Labour productivity in agriculture (Reported AWU) Y4 = Economic growth (Reported GVA) The main motivation for using spatial econometric on RDP measure 121 is development of a tool that will help to explain to what extent measures of the RDP are connected with economic, social and environmental aspect of rural areas.

#### Gateway K2

# LINKING TERRITORIAL RESILIENCE AND LOW CARBON ECONOMY IN EUROPEAN REGIONS AND CITIES: CASE STUDIES OF SMART, SUSTAINABLE AND INCLUSIVE GROWTH IN EUROPE

#### Aldo Treville, Polytechnic University of Milan, ITALY

Urban and Regional Planning is facing the urgent challenge of integrating global climate change issues with local mitigation and adaptation efforts, taking into account complex and crosscutting issues that encompass social, economic, and environmental aspects. In this framework, territorial resilience and low carbon economy have a key role in delivering sustainable and resilient cities and regions. The paper focuses on exploring the link between territorial resilience and low carbon economy, starting from some case studies and best practices of the European InterregIV project LoCaRe (Low Carbon Regions). The project involves six European regions with the objective of developing low carbon solutions at regional and local level and contributing to economic growth at the same time. The six regions are: Region Syddanmark (Denmark), Västra Götalandsregionen (Sweden), Principado de Asturias (Spain), Regione Emilia-Romagna (Italy), Gorenjska (Slovenia) and Province of Zeeland (the Netherlands). Additionally, some international and Italian cases are presented, underlining how planning strategies and experienced solutions can show the relationship between low carbon economy, resilience and prosperity; moving towards low carbon regions and cities can mean moving towards economies with increasing Gross Product? Sustainable resource challenge can be tackled in a way that strengthens cities' and regions' competitiveness. Market and business potentials, energy efficiency and effectiveness seem to be necessary ingredients in a transition towards low carbon economy. And resilience and low carbon economy seem to be necessary ingredients in transition towards smart, sustainable and inclusive places. The task is complex and involves several themes: land use regulation becomes a powerful tool, when it comes to contributing to CO2-emissions reduction and promoting diversity and alternative energy schemes; compact city planning and sprawl prevention minimize the need of private, motorized transport and help alternative transportation; efficient cities including new public transport schemes, renewable in district heating systems and low carbon waste-, water- and sewerage plans are all tools to reduce CO2-emissions, and at the same time to pursue for sustainable resource management and resilience. Examples considered in the paper cover: urban heat islands prevention, urban green areas planning, urban sprawl and land take limitation, planning of energy efficient neighbourhoods planning, energy supply infrastructure, transportation infrastructure, renewable energies, peri-urban agriculture and food supply, water utilities and water management practices, resource efficiency as factor of resilience.

#### Gateway L SCENE MEETS SCIENCE: KNOWLEDGE INSTITUTIONS AND THE CREATIVE INDUSTRIES

# Jan-Jacob Trip, Delft University of Technology, NETHERLANDS Arie Romein, Delft University of Technology, NETHERLANDS

Ample attention has been paid in recent years to the relation between knowledge institutions, particularly universities, and urban and regional development. Within this broad field of debate, research and policy, the current paper focuses specifically on the ties between creative industries and entrepreneurs on the one hand, and knowledge institutions such as universities, polytechnics and academic research institutions on the other. It explores 1) how knowledge institutions may contribute to improve the location climate for creative businesses and creative talent, 2) how knowledge institutions cooperate with the creative sector to stimulate innovation and creativity, and 3) how creative industries contribute to the curriculum and research projects of knowledge institutions. Last but not least, there is the question what local governments could do to stimulate cooperations between creative industries and knowledge institutions of policy in such a way that urban and regional innovativeness benefits, considering that many successful examples of such cooperations are based on a bottomup approach, and the role serendipity tends to play in this. The analysis we present is based on literature review, in-depths interviews and workshops with creative entrepreneurs, policy-makers and researchers. First, we present a concise framework to position the possible relations between creative industries and knowledge institutions the various types of interaction that may exists between creative industries and knowledge institutions, based on the primary tasks of knowledge institutions and three main pillars of the creative economy. We then elaborate on this, by means of a case study of Delft, a medium-sized city in the Netherlands accommodating several large knowledge institutions as well as a considerable creative sector. A discussion on the possible role for policy in stimulating the cooperation between knowledge institutions and creative industries, and the main issues policies should focus on, concludes the paper.

#### Gateway K3

# THE SPACE-DIMENSION IN TECHNOLOGICAL INNOVATION SYSTEMS – A SOCIAL NETWORK ANALYSIS OF KNOWLEDGE DYNAMICS IN THE FIELD OF MEMBRANE BIOREACTOR TECHNOLOGY

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Recent research on technological innovation systems (TIS) has emphasized the importance of the systemic interplay among actors, networks and institutions for explaining innovation success or failure in emerging technological fields. Originally the TIS concept had been coined in order to overcome 'spatial fix' limitations of cognate approaches (such as the national or regional innovation system concept) by not setting any a priori spatial boundaries to the innovation system. Nonetheless, the majority of empirical TIS studies are often situated in specific national contexts, assuming that most of the relevant processes are either located in that particular space or part of a "global opportunity set" which is freely accessible to all actors alike. Specific subnational and supranational dimensions have thus mostly been neglected. Knowledge generation represents one of the core formation processes of emergent technologies in TIS. Academic researchers are assumed to be one of the key players in this process, which is, by the very nature of academic knowledge production, assumed to contribute to and draw from a global opportunity set constituted by scientific and technological knowledge. As a consequence, one would assume to find very simple geographical patterns in the networks of knowledge generation: either national clusters, as a consequence of specific national research programs or global cooperations following disciplinary topologies rather than spatial ones. In the present paper, we criticize this simplistic conceptualization of space and propose to consider recent insights from economic geography in order to specify the multiscalarity of "TIS geographies". This will be exemplified by analysing the spatial structure of knowledge generation processes. We draw on a database of 991 articles from ISI web of science relating to membrane bioreactor technology. This dataset will be analysed by means of social network analysis regarding co-authorship structures interpreted as research collaborations. We find that the spatial configuration of these collaboration patterns, encompass not only academics but also a wide variety of other actors (industry, governments etc.). It is shown how a highly diversified spatial structure can be identified. We observe strongly interconnected network structures within different continents, specific transnational collaborations but also islands of rather isolated national collaboration structures. Furthermore, our data shows quite dramatic shifts in the topology of these networks over time. From this we derive that geography matters for academic collaborations and even more so for TIS structures in general. A geographically mores sensitive conceptualization of TIS is therefore needed. From these findings, we derive methodological implications for the (spatially reflexive) delimitation of TIS-analyses and policy implications aiming at the support of specific technologies. The proposed paper thus aims at contributing to the guiding question of the session: How do academic researchers' innovation systems function at the regional national and global level?

#### Gateway M2

# TOWARD AN INCLUSIVE PLACE BRANDING FOR TERRITORIAL GOVERNANCE. THE CASES OF BILBAO (NORTH SPAIN) AND SALERNO (SOUTH ITALY)

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In the knowledge-based economy, mobility and virtual communities have under the pull of new global connections shaped the conditions for the deconstruction of established hierarchies. Subsequently, it is bringing forward a whole new arena for interaction and competition characterized by fragmentation and imbalances (social, economic, spatial, political). The liquid society (Bauman, 2000) poses numerous space-related questions on the meaning of regions, localities; about the need of re-organising people's lives, particularly their working routines, leisure activities and how they construct meaning. These developments have caused a shift in the roles of different actors, including individuals, government, business, institutions and the media. The context of networked regions and cities heralds the bankruptcy of top-down planning (Caalders, 2003; Richards and Hall, 2000), 'place-specific circuits of power linked to society, economy and the state' (Yüksel et al., 2005) and transnational networks of power (Massey and Jess, 1995). If the power brokers continue to cling to the obsolete Fordist model, then what space, if any, can regional powers identify to redefining and re-configuring a 'new regional world' (Harrison, 2012) in the contours of supranational competitive space? The shift in the centre of gravity from a traditional legislative framework of established top-down centralized government power to regional, network and local power translates the attention of researchers on potential new governance features. For example, 'interactive governance' (Kooiman et al, 2008), 'collaborative governance' (Ansell and Gash, 2007) and 'embedded governance' (Go and Trunfio, 2011) fundamentally relative and contextual (Forester, 1984), based on stakeholders engagement (Tompkins et al., 2008) and accountability, transparency, participation, communication, knowledge-sharing, efficiency and equity (Beaumont and Dredge, 2010). Whilst the benefits of decentralization have been touted in the literature (Li and Petrick, 2007), researchers have paid less attention to dangers of marketing myopia, i.e., the risk of local government to neglect the effects of (supra-) national priorities (Yüksel et al, 2005). Whilst networked cities and regions within different contexts of fragmentation can benefit from inclusive place making an excessive concentration on it may backfire. Recent theoretical contributions focus increasingly on the relationships between city/place branding, political ideologies and governance features e.g., in the tourism context. City/place branding is a profoundly complex subject and an 'applied science' characterized by fragmented debates across a wide range of disciplines ranging from political philosophy, marketing, economics, geography and public relations to political science. The multitude of concepts, and theories and level of observation (country, nation, region, city) (Balmer, 2001; Anholt, 2005) can easily overwhelm researchers, and threaten to turn the notion of place branding into a 'container concept' and 'contested space' (Go and Govers, 2010). In view of the conference theme we therefore will refer to city branding, instead. The marketing literature has been preoccupied with experiments to measure brand identity, brand extension and brand equity (Aaker, 1996; Kapferer, 1998; de Chernatony, 1999; Azoulay and Kapferer, 2003). Also, numerous studies have examined destinations from a consumer-perceived image approach (Ritchie and Ritchie 1998; Baloglu and McCleary, 1999;). There is a dearth of studies which focus on the internal perspective (Lemmetyinen and Go, 2008; Del Chiappa, Bregoli, 2011). Furthermore, there is a great need to bridge the binary perspectives (Cai, 2002) whilst simultaneously being observant not to interpret commercial brand management as synonymous with place branding for three main reasons. First, the characteristics of a territorial actor, including a nation, region, city differ fundamentally from those of a commercial company (Passow et al, 2005). Second, a mechanical translation of a commercial orientation without due consideration, including place-specific features in a sensitive manner would likely lead to the corrosion of character, i.e., an area's sense of place (Konecnik and Go, 2008), embedded in, amongst others, social relationships, historic and geographic features that render place distinctive. Third, if not arrested extended damage over time might result in the destruction of place identity and increase the exposure of a territorial actor to reputational risk. The aforementioned changes pose many challenges for the analysis and governance of regions and cities introducing in the debate on the policies style and governance the role of place branding. Their increasing fragmentation is

illustrated by the cross-case analysis of Bilbao in relation to the recent 'launch' of Salerno's "S" logo created by a top-down process. An embedded governance approach is introduced for fostering a coexistence design strategy (Go and Trunfio, 2011) aimed at re-configuring the conditions and the relationships around the territorial core values within a city brand platform dialogues not only with existing customers (tourists), but also and importantly with new stakeholders: investors, scientists, artists, designers, etc. By cross-national case analysis, the paper aims to contribute to theoretical debate proposing empirical evidences to foster the shifting from national to city/regional identity and the clustering over a wide range of policy-making contexts (Hood, 1983) analyzing the role of different actors, included territorial governance, in the place branding building process.

# Gateway B1 SOCIAL INTEGRATION AND EXTERNALITIES IN THE NETHERLANDS

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Using a multi-level model with spatial externalities at neighbourhood and municipality level and data from the SPVA (Sociale Positie en Voorzieningengebruik Allochtonen) survey and the Netherlands Statistics, the aim of this paper is to determine to what extent differences in individuals' social integration are the result of a) the characteristics of the individuals (Level 1), b) the characteristics of the neighbourhood where the individuals live and of the neighbouring neighbourhoods (Level 2), and c) the characteristics of the municipality where the neighbourhood is located and of the neighbouring municipalities (Level 3). This paper also examines whether place-based factors (Level 2 and 3) affect social integration of individuals i) of different ethnical groups and ii) of the first and second generation immigrants, in different ways. Using a variety of proxies for social integration (proxies for social integration in the neighbourhood and proxies for social integration in the Netherlands), the results show that the correlation between the proxies for social integration is very low. This highlights the fact that social integration is a broad and multidimensional concept. Considering the proxies for social integration in the Netherlands, the results depict that Dutch natives are the most socially integrated in their country, but as for the immigrants, Antilleans are the most socially integrated and Turks are the less integrated. The second generation immigrants are more socially integrated in the Netherlands than the first generation immigrants for all ethnical groups. Considering the proxies for social integration in the neighbourhood, the results show that Turks are the most socially integrated in the neighbourhood and even more integrated than the Dutch natives. Moreover, there is no any difference in social integration in the neighbourhood between the first and the second generation immigrants. As for the place-based effects, the main result of the analysis is that people who live in neighbourhoods with high percentage of foreigners are expected to be the less socially integrated. This finding is highly robust to the measurement of social integration and to the inclusion of different control variables at individual, neighbourhood and municipality level. Other results show that place-based effects do not matter for the most socially integrated people. The above findings have important policy implications. This paper will help policy-makers to understand the role of neighborhoods and municipalities in social inclusion. Understanding the multi-dimensional concept of social integration and its determinants not only at individual level (Level 1), but also at neighbourhood and municipality level (Level 2 and 3) might help to lead to smarter, more sustainable and inclusive places.

# Gateway H SPATIALLY UNBALANCED GROWTH IN THE BRITISH ECONOMY

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The financial crisis and consequential recession that brought the UK's long economic boom of 1993-2008 to a dramatic end exposed the highly unbalanced nature of that boom and the growth model on which it was based. Policy statements by the UK Coalition Government have directed attention to three aspects of this imbalance in

particular: a sectoral over-reliance on finance; an excessive growth of public spending relative to national output; and spatial imbalance in the sources and distribution of growth. In this paper we examine the scale of spatial and sectoral imbalance in the UK economy, how we might expect them to be related, and consider whether the Government's new approaches to regional economic policy can be expected to produce more regional balance. We argue that both the concept of regional imbalance and the contribution which sectoral composition is thought to make to it are often relatively poorly specified in theories of regional growth. Using industrially disaggregated data for the period 1971-2010 the article goes on to consider the relative contribution that sectoral composition has made to North-South regional imbalance in the United Kingdom, and in the light of our findings we argue that the new policies that have been introduced to redress that imbalance are unlikely to have any profound impact.

#### Gateway K THE COMPLEMENTARY EFFECTS OF PROXIMITY DIMENSIONS ON KNOWLEDGE SPILLOVERS

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Technology policy is deemed to become more and more crucial in unlocking the growth potential of the EU as stated in the Europe 2020 strategy. In this perspective, this paper investigates the complex nature of innovation creation process and knowledge diffusion within and across regional innovation systems. The capacity of a region to generate, transmit and acquire knowledge and innovation depends on a multifaceted set of factors: investments in research, knowledge and human capital as much as on interactive learning and absorption capacity. Both aspects are strictly related to the concept of closeness of economic agents and how this affects their ability to connect and, possibly, cooperate within systemic networks. According to Boschma (2005) we need to combine the standard geographical proximity with the institutional, technological, social and organizational ones to assess whether they are substitutes or complements in channelling knowledge spillovers. The main object of this paper is therefore to analyze the interaction of internal factors and external spillovers (channelled along different proximity dimensions) in determining the technological performance of European regions. The analysis is implemented on an ample dataset referring to 276 regions in 29 countries (EU27 plus Norway, Switzerland) in the first decade of the new century. The original contribution of this paper is to empirically assess the joint and complementary effects of various dimensions of proximity on knowledge spillovers across European regions. Our analysis is carried out within the Knowledge Production Function (KPF) framework, where R&D expenditure and human capital are the main internal inputs, and it is implemented for an ample dataset referring to 276 regions in 29 countries (EU27 plus Norway, Switzerland). Spatial econometric techniques are adopted in estimating the KPF model in order to account for the regional interconnectivity pattern. Our model selection strategy points out that a spatial autoregressive specification is adequate in capturing the main features of our sample data. Such specification permits to single out the relative importance of the regional internal production factors with respect to spatial spillovers. In order to fully account for the complementarities among all the proximity dimensions considered, the optimal estimation strategy would entail the specification of a comprehensive model which includes all of them at the same time. However, for a spatial autoregressive (SAR) specification, this would require the solution of an order five multivariate optimization problem, which goes beyond the current state of the art (Elhorst, 2010). As a workable alternative we therefore adopt the SAR model variant which includes two different spatially lagged terms for the dependent variable; this kind of specification, which allows to account for pairs of proximity dimensions at a time, was first proposed in a different setting by Lacombe (2004). Moreover, to obtain at least an approximate measure of the overall spillover effect when all knowledge transmission mechanisms are at work, we carry out a postestimation exercise based on model combining techniques. Our main results confirm the importance of investment in R&D and reveal that human capital plays an even greater role in enhancing innovative activity. More importantly, our analysis shows that geography is not the only dimension which favours knowledge diffusion since technological proximity always proves to be the most relevant, while social and organizational networks are also significant although their role is modest. As a consequence, we find that a relevant part of the total effects of R&D investments and human capital endowments on the knowledge creation in a certain region derives from spillover effects coming from other regions along a composite system of interregional connections. In other words, these indirect effects vary with the proximity dimension employed, but they are all crucial in channelling knowledge through a variety of regional interdependences.

#### *Gateway J1* TECHNOPOLES IN THE SUBURBAN KNOWLEDGE ECONOMY: A CASE OF POLICY CIRCULATION?

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Since the influential work of Castells and Hall (1994) on the advantages (and failures) of technopoles and science parks on the process of technological innovation in different regions of the world, virtual all European regions have been dealing with innovation policies targeting high-tech entrepreneurship and highly-skilled employment creation. The ability to bridge gaps among new firms, universities and other science and technology public bodies has been a crucial element on the technopoles and science parks policy rational. Considering innovation a social process, the interaction of a myriad of actors in the same geographical bounded space has been pointed out precisely as the major fundamental factor favouring innovation dynamics. However, the outcomes of such endeavours are far from being consensual if not at all high-tech fantasies (Massey, Quintas and Wield, 1992). Recently, Europe 2020 strategy advocates smart growth as a means to nations and regions deliver employment, productivity and social cohesion. The European strategy aims at reinforcing the knowledge economy, strengthening competitiveness and retaining employment at region and city levels. Therefore, is it quite understandable that technopoles and science parks become again a relevant research and policy analysis topic. The typical location of technopoles favoured the periphery of large and dynamic urban areas, consisting on a series of low density built-up area in a campus-like atmosphere (Castells and Hall, 1994). Recently, knowledge parks developing occurs also in the city itself, often in old manufacturing sites close to city-centre linked with large scale urban regeneration operations. This type of infrastructures is now seeking to attract creative industries and the world creative class in an ever increasing competitive urban world. It is obvious that peripheral science parks and technopoles face new competition from these city centre knowledge location infrastructures. In this paper we analyse why and how suburban areas evolve from a simple strategy of attracting businesses to more ambitious goals targeting high-technology firms and lately creative industries. We discuss what have been the outcomes of such policies in suburban areas of Madrid and Lisbon paying particular attention to how city centre regeneration strategies challenge suburban knowledge economy development strategies and how public investment decline due to economic crisis distress suburban economic development. Preliminary findings suggest that powerful competitiveness and creativity narratives go hand in hand with ambitious European and regional/local policies in what may be a case of policy circulation with some obvious constraints on suburban areas, which lead us to conclude that imitative strategies blind to specific place capabilities are to say the least sterile and threaten suburban economic development.

#### Gateway A1

# COMPARATIVE ANALYSIS OF CROWD FUNDING PLATFORMS IN THREE EUROPEAN CULTURAL CLUSTERS

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In the European countries culture makes an important contribution to the economy. A major part of cultural activities are to some extent financed by common means, usually divided to the artists through an intrinsic system of politicians and experts. Our study aims to analyse online funding of cultural projects, where the individual citizen will choose what cultural project to support financially. We will investigate both systems where the private funding is supported by public funding and some systems only handling private funding. We investigate potential differences in the motifs and outcomes of the funding system from the stakeholders perspective. Among others we map our attitude results against the World values survey carried out by prof R. Ingelhart. The outcome of the study will hopefully contribute with insights to a policy framework of pan-European indicators for evaluation of online funding mechanisms. The study departs from a comparative study between three on-line funding organizations, Verkami placed in the category "Latin Europe", WeDidThis in the category "English speaking", Crowd culture in the category "protestant Europe". The study will use the following indicators to compare the platforms: Platform self image Why does this exist? The three on-line platforms suggested for the comparative analysis are initiated because of different reasons even though their output might be seen as similar. The first part of the paper uses qualitative methods and semantic analysis to understand the self image of the organizations. Projects applying for funding Who applies, for what and what does the total financial picture look like? Are their differences in who applies for funding through the system between the countries and how representative are the applicants compared to the total artistic population in each country? Does such a system open doors for others than the "cultural elite"? The evaluation of project content and creators will apply the Danish model Önskekvisten , a qualitative approach to evaluate the artistic quality of primarily performing arts, through the artists skills, engagement and ability to contextualize there work to a contemporary practice. Last of all for what do they apply, what share of total funding does the on-line fundraising meet? Users contributing to projects Who pays for the projects? Little is known about the audience for this new type of expressions. The research students will use quantitative measures to understand if the participation mirror society at large? What is the demography of the donors? What is their line of work? How old are they? Etc. If possible, that is if data exist. What are their attitudes towards art and culture? How do they interact on the platforms, can we see indications of a qualitative debate and deliberation among the users?

#### Gateway K3

# HOW OPEN INNOVATION DIFFERS BETWEEN REGIONAL INNOVATION SYSTEMS. A CASE STUDY OF ACADEMIC SPIN-OFF FIRMS

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R&D and innovation increasingly take place in networks beyond the boundaries of a single firm with knowledge institutes, customers, suppliers, etc. as important partners in collaborative learning, a phenomenon captured by the term of open innovation. Advantages of open innovation encompass cost reduction, smaller market risks and an increased competitiveness in terms of innovative level. However, managing the concomitant networks and relationships seems to be an art in itself. Small high technology firms that emerge from universities (academic spin-offs) are often in short of market knowledge and marketing skills, as well as financial resources. Accordingly, open innovation seems to offer them many opportunities. Entrepreneurship and management studies, however, tell that small high technology firms differ in capabilities to manage open innovation, whereas spatial innovation theory suggests that the potentials for open innovation are not the same for all regional innovation systems, like in large metropolitan areas and ones covering places with less urban density. The question whether and how urban qualities influence the potentials for open innovation has been addressed only recently. An important influence seems beyond doubt connected to stronger agglomeration advantages in large cities, such as access to a rich variety of venture capital, skilled labour, specialized suppliers, and customer groups, including launching customers, meaning that large cities enhance the possibilities of open innovation within the region and maybe overall. In contrast, small cities, in lack of such agglomeration advantages, may cause firms to be more closed in their innovation efforts, or to collaborate more distant partners. Empirical results so far tend to produce contradictory results. For example, some authors demonstrate that the conditions for using open innovation are better in large city regions than elsewhere, whereas other authors arrive at results indicating that firms in less urbanized areas are facing more open innovation processes. Overall, empirical research that combines both a spatial innovation and a business management perspective in linking with open innovation, is still rare. In economic geography and business management studies, no research field explicitly focuses on how the firm's organizational characteristics relate to the firm's fundamental urban and regional innovation environment. To fill some of the knowledge gaps, we compare academic spin-off firms in cities in two contrasting regional innovation systems in Europe (a large metropolitan area versus an isolated knowledge city in rural lands). We draw on a sample of hundred spin-off firms from Delft, Netherlands, and Trondheim, Norway. First, we conceptualize open innovation and make assumptions on what types of open innovation provide opportunities for academic spin-off firms as small, vulnerable, high technology firms. Next, we describe in what ways these firms are engaged in open learning networks, what the differences in patterns between the two cities are and how open learning networks contribute to growth of the firms. We use longitudinal data and OLS regression analysis. Key words: open innovation, learning networks, firm growth, academic spin-off firms, regional innovation systems.

#### Gateway C NEIGHBOURHOOD HISTORIES, RESIDENTIAL MOBILITY, AND NEIGHBOURHOOD EFFECTS ON INDIVIDUAL INCOMES

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There is a strong belief among academics and policy makers that the social and physical environment of neighbourhoods can have an effect on residents' life chances over and above the effect of their individual characteristics: so-called neighbourhood effects. There are a range of theoretical explanations for neighbourhood effects from role model effects and peer group influences to stigma and discrimination. A large body of studies claims to have identified neighbourhood effects on outcomes such as educational achievement, health, employment, social exclusion and social mobility. It is questionable however whether these studies have identified real causal neighbourhood effects as most studies suffer from a range of econometric problems, most notably selection bias. This selection bias is the result of non-random selection of neighbourhoods by households. I will present the results of new innovative research on individual "neighbourhood histories" and the intergenerational transmission of neighbourhood effects. This study uses individual level longitudinal register data for the whole Swedish population for a period of 19 years.

#### Gateway H

# INTER-REGIONAL COMPETITION AND AGGLOMERATION ECONOMIES IN EUROPE (2000-2010)

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In this paper we discuss the development of regional competition between firms within Europe over the last decade. We introduce a new measure for revealed competition based on the market overlap on different product markets. This network measure is based on the importance of different markets and the market share of competitors on these markets. It gives the degree of revealed competition between firms from different regions. This measure addresses several known shortcomings of measures based on Finger's and Kreinin's (1979) export similarity index; i.e. the proposed measure is not symmetric, appropriately deals with specialized regions and changes in competition due to economic growth. We present the revealed competition among firms in 256 European NUTS-2 regions on 60 different product markets for the year 2000 and over the period 2000-2010 as an illustration of the proposed measure. The top competitors of firms in the same sector are found to be very stable over time. The stability of this relationship is useful for guiding and evaluating competitiveness policies by identifying those regions that house competing firms. We do, however, identify typical star-sectors with increasing market dominance and find strong evidence for concentration of these sectors in Europe's large agglomerations.

#### Gateway K

# UPGRADING AND TEMPORARY CLUSTERS: AUTOMOTIVE EVENTS IN SHANGHAI

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Upgrading and the development of new innovation networks in regions of emerging economies are often difficult and various conditions to be met. One necessary, but not sufficient, condition for upgrading (including product, process, chain and inter-sectoral upgrading) is that regions need to be connected with the outside world in order to obtain new skills, and to get access to other (higher) markets, new technologies and knowledge. The concept of temporary clusters deals with events and trade fairs which are seen as arenas to steer local interaction and to offer the potential to establish new global pipelines. Hence, events may contribute to upgrading by linking domestic players with global ones, beyond the limitations of multinational networks. In this study we

analyse how events contribute to regional upgrading. More specific, we try to identify the major upgrading drivers and barriers at events. In addition, we try to understand the linkages between the event and permanent clusters in relation to upgrading. Empirically, we focus on two automotive events in Shanghai. The Chinese auto industry is interesting for its fast growth, copy right tensions between foreign and domestic firms, and the upgrading ambitions from the state. The latter is among others translated in the well known Chinese jointventure policy, with many limitations, that aims to function as a vehicle for technology transfer. The results of the upgrading policy are widely debated, and many studies stress that upgrading is limited to product and process upgrading, while chain and inter-sectoral upgrading less frequently take place. In this paper we analyse how, and to what extent, automotive events in Shanghai can contribute to upgrading. Our analysis shows that automotive events are the places to catch global buzz which cannot be done outside the fair and in this sense the events complement common research partnerships and joint-ventures which mainly deal with technology transfer and training. The shows are major spots to observe competitors and consumers and domestic firms actively search for new trends and technologies that are used after the shows to upgrade their products. Moreover, the shows offer potential to establish relations with new global players, although we have seen that in many cases maintaining relations with current partners is more important than establishing new ones, thus limiting the upgrading potential. A major exception are lower tier suppliers who use the shows to get in touch with dealers, which is crucial for the development of the after market, a market segment which is still in an early development stage. There are also a number of factors that hinder domestic firms to get the knowledge required for upgrading, including the complexity of the products shown; defensive strategies of foreign firms to protect technologies and the fact that the show is mainly a place to sell cars rather than technologies. A final upgrading barrier is the price of the shows, which function as a selection mechanism by giving access for the best performing firms, while firms with lower capabilities cannot enter the show limiting the upgrading potential for the latter.

#### Gateway M

# EXPLORING TERRITORIAL GOVERNANCE ACROSS EUROPE: A DEDUCTIVE RESEARCH DESIGN

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This paper argues that many empirical studies on "territorial governance" employ an inductive research approach whereby empirical results help to revisit or re-define some established concepts or components of territorial governance. The ESPON TANGO (Territorial Approaches for New Governance) project, on the other hand, is applying a deductive approach to analyse governance practices: A modified conceptualisation of what territorial governance contains shall help to define a framework to study "good" territorial governance in 12 empirical cases across Europe. The project framework is informed by current theories of territorial governance, but also policy-driven questions, such as how Cohesion policy can encourage stronger and more efficient forms of territorial governance. The research team, consisting of six European partners, has to cope with different challenges, gaps and options to further empirically operationalise such a transnational policy-driven study. Consequently the paper will discuss about the research team's efforts to develop a deductive and feasible research design by discussing different issues that are associated with the main objectives of the research project, namely to provide evidence-based information taken from case studies on different arrangements of territorial governance with diverse geographical scopes and thematic objectives across Europe. The paper will reflect our step-wise approach to unfold a research design that shall respond to several pre-given policy related questions. In doing so, we start with a working definition and further conceptualisation of territorial governance which will include various dimensions (e.g. analytical and normative), phases in the policy process (policy development, negotiation and decision-making, implementation) and components (actors/institutions, coordination/inter-action). Here in particular, we face conceptual challenges such as integrating an explicit 'territorial' perspective, multi-level constellations (yet in a transnational perspective, i.e. to incorporate different governance traditions and systems across Europe) and to what extent various notions of spatial planning can be built-in will be further discussed. After that a deductive research design for the twelve case studies across Europe will be elaborated, based on several hypotheses on the circumstances under which "good" governance is possible and which parts of the governance processes are transferable to other contexts. The focus of the case studies is in particular targeted to understanding how vertical and horizontal coordination of policy levels and sectors is managed, including how institutions at different levels and in particular the institutions involved in implementing the policies, programmes and projects achieve a certain territorial goal. We not only look at how spatial planning and regulatory instruments are involved in territorial governance, but also the use of broader

policy tools such as negotiations, consensus-building and stakeholder involvement. We then identify some of the barriers to 'good' territorial governance processes and mechanisms and determine how these barriers are being overcome. Finally, the case studies will help us to assess the 'good' or innovative elements of territorial governance and determine which aspects can be transferred to other cases . Consequently, our paper aims at opening-up three strands of the debate around territorial governance by a) discussing a further exploration of the tricky notion of 'territorial governance', b) suggesting a deductively-derived empirical framework that can be applied for in-situ analysis of current territorial governance systems at work, and finally, c) focussing on how the deductive approach to a framework for analysing territorial governance can complement more usual inductive approaches.

## Gateway J1

# SYNERGY MANAGEMENT AT KNOWLEDGE HOTSPOTS

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Despite wide differences in endowments, opportunities and context, cities across Europe share the ambition to be successful in the "knowledge economy". Knowledge-based urban policies take a variety of forms: luring higher educated people, promoting entrepreneurship, developing clusters of knowledge-based industries and 'creative' industries, promoting technology transfer, etc.. Also, many cities make efforts to underline the identity of the 'knowledge city' using marketing and branding techniques. This paper focuses on a popular intervention, namely the development of special 'knowledge locations' in cities (science parks, technology parks, open innovation campuses, creative districts, media hubs etc). A central assumption of many knowledge locations developers is that knowledge synergies can be achieved at the level of the location. In spite of mounting evidence that innovative partnerships and co-operations are developed on a national or international rather than a local scale, policymakers continue to believe that location-based concepts are effective to enhance knowledgebased growth. At the same time, there is an increasing awareness that synergies 'on the spot' do not emerge spontaneously. In our study of knowledge hotspots, we observed a variety of measures and actions to promote knowledge synergies. In the paper, we focus on the management of knowledge synergies in such locations. With this focus, we fill a gap in the current research on knowledge locations: despite the proliferation of active management approaches, there is very little research on it. Based on a number of case studies, four 'interaction management tools' are discussed and illustrated with examples:

1) controlling the tenant mix,

2) active community building between people who work in the knowledge hotspot,

3) area programming, and

4) specific tools to promote the interaction between business and knowledge institutes in situ.

The paper is based on an analysis of 6 knowledge hotspots in three different countries. For each case, we studied the policy documents describing the plans and ambitions for that particular knowledge hotspot. Next, site visits were made. Semi-structured discussions with developers, tenants, and policymakers in each area yielded insights into the strategies, expectations and realities of 'synergy management', from different perspectives.

# Gateway M THE CHANGING SPATIALITY OF PORT GOVERNANCE: THE CASE OF ANTWERP

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It is often stated that governments face problems since the subject of governance (the economy) does no longer coincide with the territory of governance. While economic processes follow the rationale of spaces of flows, territories can be considered as spaces of places. As a consequence, many policies aim to get control over the economy by adopting strategies that focus on networks. This can be observed in European ports where port authorities establish networks with actors in other places outside their territory, even in other countries or continents. The rationale for a more network-oriented governance approach can also be found in the port (governance) literature which increasingly sees ports as elements in supply chains/value chains instead of as special kinds of places. Furthermore, the scale of ports increased due to expansions in other jurisdictions and the bargaining position of port authorities has been challenged by vertical and horizontal integration of private

companies. Using the case of the port of Antwerp (Belgium), we discuss the networking and rescaling of port governance. The two main rescaling options are the establishment of regional port authorities that govern several ports, and linking port governance to metropolitan governance. Besides these two options we also discuss some elements present in the literature that focuses on the governance of corridors. Following trends and facts have been relevant for the changing spatiality of port governance, (1) the paradigm shift from ports as places to ports as nodes in networks, both in the literature and in policy making, (2) general evolutions in (local) government practices and concepts like shifting parts of local government to unelected agencies and the increased emphasis on regional competitiveness, flexibility and efficiency, (3) the internationalisation of cargohandling companies, (4) the existence of differences in port governance practices in Europe with municipal port authorities in the so-called Hanseatic region, privatised ports in the UK, and national governments as main level in Mediterranean ports, (5) the role of central governments in Hanseatic ports, and (6) the expansion of ports and the increased spatial separation between port and city. To assess some advantages and disadvantages of the metropolitan and regional port models we discuss, besides economic performance, also quality of life and democratic representation as sources of legitimacy for port authorities. The importance of liveability became apparent in the debates over the effects of port expansion projects in the course of which the involvement of nearby communities was advocated. Finally, although we name the evolution towards a new port model 'rescaling', we will consider whether these and similar processes can be interpreted in terms of territorialisation, place-making and networking. Key words: ports, port governance, legitimacy, socio spatial relations, Antwerp.

#### Gateway I

# STATE SPATIAL RESTRUCTURING, EUROPEANIZATION AND THE (RE)PRODUCTION OF PERIPHERIES: A VIEW FROM THE DUTCH-GERMAN BORDERLANDS

# Krisztina Varro, Radboud University NETHERLANDS

Areas along national borders have long been acknowledged as spaces where the effects of peripherality and boundary location are mutually reinforcing each other (House, 1980). In the European Union, the ambition of creating a seamless and integrated space (Jensen and Richardson, 2004) has entailed ongoing policy concern with such areas. Cross-border cooperation initiatives, taking the form of 'Euregions', have benefited from generous INTERREG funding to address the above-mentioned effects and were heralded as 'laboratories of European integration'. However, by the turn of the millennium it had become widely acknowledged that these initiatives had largely failed to integrate peripheries on the different sides of borders into coherent cross-border regions. Accordingly, this paper does not take a Euregion as its starting point but opts for the concept of 'borderlands' that has several analytical benefits. First, it reminds us of the material effects of the borderline in space – effects that have tended to be ignored by studies focusing on Euregional frameworks of (functional) cooperation. Importantly, these effects are not deterministic but contingent upon scalar and territorial politics; borderlands are thus not static but are being reproduced as they become implicated in various political practices. Second, unlike the notion of the (Eu)region, 'borderlands' does not suggest that cross-border cooperation initiatives (will) lead to greater spatial coherence and can be straightforwardly delimited. Instead, it allows us to acknowledge the perhaps "less 'successful' day-to-day work of actors" (Newman, 2008) who have possibly multiple scalar affiliations and who are "tactically pursuing interests, perceiving constraints and calculating opportunities" (ibid.). The usefulness of this conceptual framework in coming to grips with the persisting-yetchanging peripherality of borderlands is demonstrated through a case study that examines the cooperation efforts between the region of Parkstad Limburg (NL) and the Aachen City-region (D) in a historical perspective, as part of unfolding state spatial restructuring and Europeanization processes.

# Gateway D1 MEGA-EVENTS AND URBAN REDEVELOPMENT: FROM THE 2007 PAN AMERICAN GAMES TO THE 2016 OLYMPIC GAMES

# Luis Vasconcelos, University Of Barcelona, SPAIN

The sporting mega-events as a catalyst of urban transformations have become associated with driving urban change. However, the preparation of the sporting mega-events has often led to further forced evictions or threats of forced evictions, in the displacement and relocation of communities, increases in the prices of housing for rent and to drastic decline in housing affordability. In most cases, the housing impacts of sporting mega-events affect the most vulnerable segments of the society, including the poor, the homeless and minorities. Brazil will host the world's two major sporting mega-events within just two years: the FIFA World Cup in 2014 and the Olympic Games in Rio de Janeiro in 2016. It has perceived that as a great opportunity to advertise the country globally. Since the staging of the Pan-American Games in 2007, Rio de Janeiro has proved to be a very good example of a city greatly affected by a mega-event in terms of urban development. The preparation of the 2016 Rio Olympic Games has been used as a pretext to become a central focal point of urban transformation and a political space where governance issues are managed with wider strategic planning at area and regional level. Nevertheless, it has been used by the Brazilian municipality as an excuse to forcibly obliterate illegal settlements. This paper intends to critically examine the implications of the driving forces of urban development, especially when manifested in major events. Most specifically, it aims to do a critical analysis of the adverse impacts of such events on the residents of Rio de Janeiro. The paper could contribute to the ongoing debate regarding the present and the future of urban transformation in cities hosting sporting mega-events. At the same time, it could give us clues about the extent to which the current urban renewal changes taking place in Rio de Janeiro affect the core of what constitutes public governance practices and urban entrepreneurialism.

### Gateway K

# KNOWLEDGE-INTENSIVE REGIONAL CLUSTERS IN THE INTERSECTION OF REGIONAL AND SECTORAL INNOVATION SYSTEMS IN LESS DEVELOPED REGIONS

#### Zsofia Vas, University of Szeged, HUNGARY

Knowledge is a key determinant to boost competitiveness, and one of the most influential factors in the enhancement of innovative activities, in the increase of innovation performance of economic actors, firms, regions, and in the formation of local milieus and in spatial clustering. Knowledge-intensity has become a key explanatory factor in the development of knowledge-based economy, which describes the increasing importance of knowledge-intensive industries too. Knowledge-intensive industries have attracted much attention in recent years in economic analyses. Today they are concerned as the core of growth, the source of regional specialization with an increasing importance even in less developed regions, like in Hungary. Knowledgeintensive industries are particular types of sectoral innovation systems. They are different in the pattern of innovation, and vary form the traditional economic activities in the form of knowledge base, knowledge sources, links and local clustering. The relevance to explore the role of regional level to analyze knowledge generation and the exploitation of its economic benefits, to study knowledge-intensive economic activities has been highlighted, and the contribution of regional innovation system in fostering innovation activities and clustering has also been proved, and have high importance even is less developed regions. However knowledge-intensive clusters with the special characteristics of being unique types of sectoral innovation systems are influenced by regional innovation systems with deficiencies in less developed regions. Recent study attempts to demonstrate the functioning of knowledge-intensive regional clusters in less developed regions from the viewpoint of regional and sectoral innovation systems. Special attention is given to less developed regions, which have lower regional innovation system potential, and where knowledge-intensive industries have to face innovation barriers. The study is a framework for a further empirical research to investigate a particular knowledge-intensive regional cluster as the intersection of a sectoral and regional innovation system in one of the less developed regions in Hungary.

#### Gateway H SPATIAL STRUCTURE AND ECONOMIC GROWTH: EVIDENCE FROM ITALIAN FUNCTIONAL URBAN REGIONS

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This work is aimed at investigating empirically the relationship between spatial structure and growth in Italian Functional Urban Regions (FURs). While several factors such as size, diversity of sectoral composition and human capital have been widely studied as engines for increasing returns and consequent urban development, the way in which activities are distributed within regions is still not much investigated. In fact, despite much evidence has been provided that higher agglomeration is associated with higher productivity and growth, empirical analyses presenting such evidence usually adopt only density or urban size as key measures of agglomeration. However, by simply considering density or total population it is difficult to disentangle the specific characteristics of spatial structure that facilitate the mechanisms at the base of agglomeration externalities. More specifically, the spatial organization of activities within metropolitan and urban regions can be very different, ranging from very dispersed areas to compact ones, from areas characterised by one single large and dominant centre to others in which several centres of similar size are strongly connected with one another. Behind these differences in the spatial structure of metropolitan regions there can be different mechanisms generating agglomeration externalities. In this work spatial structure is defined in terms of size and of two main dichotomies: monocentricity-polycentricity and centralization-dispersion. The size considers the overall level of agglomeration, hence it is related with the scale of an urban or metropolitan region. Regarding the first dichotomy, a polycentric structure can make it possible to obtain agglomeration effects through the exploitation of network relationships of complementarity that occur in a context of spatial proximity and functional integration. This (potential) role of polycentricity is currently at the edge of the policy debate, since it was stated in the European Spatial Development Perspective (1999) and more recently in the Territorial Agenda, which promote polycentric development as a driver for regional growth and cohesion. The second dichotomy is less related with connections among centres and more with the morphological organization of regions. More specifically, a dispersed structure can be associated with lower interaction among agents and higher social costs related to sprawl, while a compact spatial organization can foster interaction. The analysis on the role of both of polycentricity and dispersion on the growth of urban regions implies to carefully reflect on the appropriate spatial units of analysis. In fact, the results are dependent on the definition of city and urban system to be adopted. In this work we take on a functional definition of urban region, analysing the 81 FURs, which have been previously identified. Then, several indicators of spatial structure – both for polycentricity and dispersion – of the FURs have been computed and compared. In particular, polycentricity has been declined both in morphological and functional aspects, while dispersion has been quantified in terms of spatial distribution of jobs. Then, we estimated the effects of these characteristics of spatial structure on urban growth for the period 1991-2001. Following the empirical framework on urban growth, we took into account growth of population and employment (jobs) as proxies for the economic performance of Italian FURs. This allows us to consider both the demand and supply side of the most relevant factor of urban economic performance: labour. Results show that spatial structure may play a role, albeit to a lesser extent than other factors, such as labour market conditions and demographic structure. The main findings show that more dispersed and less polycentric FURs showed higher growth patterns. This suggests that, on the one hand urban dispersion seems not to harm the economic performance of urban regions while, on the other hand, multiple centres may not replicate the benefits of single centre agglomeration.

#### Gateway K2

# LOCK-IN OR LOCK-OUT HOW STRUCTURAL PROPERTIES OF KNOWLEDGE NETWORKS AFFECT REGIONAL RESILIENCE?

Jerome Vicente, Lereps, University of Toulouse, FRANCE Joan Crespo, CREM, University of Rennes, FRANCE Raphael Suire, Lereps, University of Toulouse, FRANCE

Lock-in or lock-out How structural properties of knowledge networks affect regional resilience? Joan Crespoa Jérôme Vicentea, Baphael Suirec a LEREPS, University of Toulouse b Toulouse Business School cCREM, University of Rennes 1 Literature largely acknowledges that the existence of localized knowledge networks is, among many others, one of the significant factors of regional performance in so-called "knowledge-based

economies". Whatever the taxonomy, from industrial districts to innovative clusters (Moulaert & Sekia, 2003), and the hypothesis and results refinements, researches converge on the idea that some regions draw their performance better than others from their ability to home dense networks of complementary and interacting organizations (Owen-Smith & Powell, 2004; Graf, 2011). Largely evidenced, such a move toward a relational approach of regional performance (Boggs & Rantisi, 2003) has led, particularly in Europe, to a massive development of clusters policies based on incentives for collaboration and networks development (Martin & Sunley, 2003). Nevertheless, behind the large consensus on the role that play knowledge networks in regional performance, few researches have pursue the reflection toward the long term evolution of regional innovative structures, except some very recent works. Papers of Suire & Vicente (2009), Simmie & Martin (2010), Menzel & Fornahl (2010), Crespo (2011), and Boschma & Fornahl (2012) constitute noticeable exceptions, as well as the mark of a burgeoning and promising research field for understanding how some performing regions can decline in a given moment of time while others are able to renew and sustain their growth in a disturbed economic environment. Such a questioning is nowadays of a growing interest as the macroeconomic context is featured on one hand by chronic instability, financial and economic crisis, and on the other hand by rapid technological cycles, environmental considerations and new growing consumers paradigms that challenge global but also regional policies. Regional resilience, clusters life cycles and clusters long term viability are the concepts that have recently tried to invest this questioning. These concepts converge towards a common attempt: understanding the evolutionary process through which a regional ecosystem of organizations and institutions succeed in maintaining its growth path by disconnecting its cycle to the cycles of technologies when these later declines. While some regions can have difficulties to cope with technological and market decline, even if they were performing during the maturity stage, some others reorganize resources and networks in order to leave a path for entering into a new related one. Trying to go beyond the neoclassical view of resilience as a mechanic return to the equilibrium after exogenous and external shocks, all these burgeoning researches try to capture the endogenous mechanisms of adaptability (Pyke et al, 2010), viewed as the ability of the actors and their social agency to anticipate, evolve, and so adapt to disturbed and cyclic economic environments. To deal with this questioning, we propose to combine a multidisciplinary theoretical analysis that discusses the critical factors of network resilience, with an evolutionary economic geography framework (Boschma & Frenken, 2006; Martin & Sunley, 2007) that focuses on an out-of-equilibrium approach of regional science. Networks have been of a growing interest in social sciences since a couple of years (Borgatti & Halgin, 2011). They are at the heart of well-known theoretical researches in Sociology (Uzzi, 1997, Borgatti & Everett, 1999), Economics (Jackson & Wolinski, 1996), Geography (Glückler, 2007; Ter Wal & Boschma, 2009) and Management Sciences (Powell & Grodal, 2005), with a high level of absorption of results coming from physics and complex systems theories (Albert & Barabási, 2002; Newman, 2003). Considering that networks can be represented by a set of three basic primitives (the nodes, the ties that connect the nodes, and the resulting relational structure), networks theories give a simple but a useful representation of social agency in a static sense, and are recently more focused on a dynamic purpose (Ahuja et al, 2012). Obviously, on a one hand, theorizing regional resilience only through the dynamics of knowledge networks can be viewed as a highly deterministic and ceteris paribus approach, and in a sense it is. But on the other hand, networks have been central in many guidelines and white books for regional policies during the last years (OECD, 2007, 2009; European commission, 2008), and their weakness in certain regions has been interpreted by policy makers as the primary reason of their low performances. So if institutional, political, cultural as well as macroeconomic conditions matter for regional resilience, our aim is more focused on a better understanding of the mechanics and dynamics of the networks that have concentrated the attention of policy makers. Our purpose is to draw simple but empirically interpretable signatures of local networks that give interesting properties for favouring the conditions of regional resilience.

# Gateway N

# HIGH-SPEED RAIL AND REGIONAL DEVELOPMENT

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High-speed rail developed initially as a mode of inter-city travel, largely as an alternative to air travel over distances of 400-600km. As the high speed network has grown, however, so too has the expectations of wider economic impacts. New high-speed rail stations in a number of cities have been used as the catalyst for urban redevelopment and there are some obvious successes. In contrast, while intermediate stations have been provided on most routes, there has been little identifiable local economic development associated with many of these stations. In several cases, the choice of location away from the nearest urban area and poor connectivity into local transport network have gone hand in hand with modest levels of service and traffic. Train operators

have been reluctant to serve intermediate stations more frequently because additional stops increase headline times and this is seen as unacceptable to inter-city passengers. Nevertheless, there is now emerging evidence that, once the infrastructure has been provided, high-speed rail can be used to provide shorter distance services of up to 200km which can have a more significant impact on patterns of commuting and hence on regional development. This paper first examines the way in which the growth of high-speed rail in the London-Paris-Brussels-Amsterdam network has had differential effects on the various intermediate places served. These regions are not amongst the best performing economically in their respective countries and could be argued to continue to suffer from border region effects despite the progress towards greater integration and generally highstandards of transport infrastructure. The general finding is that in the absence of clear accompanying policies on land use and local connecting services there will be little long-term impacts. However, the development of more local regional services on the high-speed lines is having an impact on patterns of commuting. The paper then goes on to look at high-speed rail services in the cross-border context and whether services can be developed across borders which would serve to achieve greater integration between neighbouring regions. So far most high-speed rail services have been developed with relatively homogeneous types of service. Since the developments discussed here imply the mixing of different types of service to exploit the capacity available, this raises further questions of how far the regulatory framework is best suited to achieving such objectives and how to develop partnerships with train operators to ensure the development of services which can assist regional development.

#### Gateway M2 COORDINATION OF TERRITORIAL AND SECTOR PLANNING IN LATVIA

# Alise Vitola, Riga Technical University, LATVIA Maija Senfelde, Riga Technical University, LATVIA

Key societal challenges are cross-sectoral and do not correspond to administrative structures. A promising solution is to decentralise planning to the regional and local levels. It is proposed that being closer to the actual people and businesses enables them to act in a more coherent, flexible and focused manner. Latvia as small transition economy in a globalised world faces a challenge to make its government small and efficient. Strengthening policy coordination between the levels of public administration and decentralisation of decision making is one of the ways to achieve this. Currently Latvia has 109 local municipalities and 5 planning regions. Planning regions ensure planning of their territory as well as the coordination of national and local level policies. Their functions are only advisory as they do not have any financial instruments to implement their planning documents. The goal of this paper is to analyse the current trends and future prospects of the coordination of territorial and sector planning in Latvia. The methods used are document analysis (research papers, policy papers), a survey of professionals in sectoral ministries on the cross-sectoral and multi-level policy coordination in Latvia, as well as a participant observation of the regional policy planning from 2008 to 2010. Since Latvia joined the EU in 2004 new trends in territorial planning have emerged. Top-down approach with subsidies as the main tool is gradually replaced by a more bottom-up version that supports local initiative. European Regional Development Funds' priority for 2007-2013 "Polycentric development" supports the implementation of integrated development programmes of 17 cities and towns as most important growth poles, and 18 largest (in number of inhabitants) municipalities. Additionally, European Social Fund supports planning capacity of regions and local municipalities through funding to attract specialists and draft or update planning documents. Also the Leader initiative within the funds of common agriculture and fishery policies adds support to the bottom-up planning approach. However, further expansion of bottom-up planning presents a threat to sectors and their stakeholders which have attained and reproduced a specific balance of power. At the same time, Latvian municipalities with the support of the responsible ministry insist on moving forward with this cause. This would mean, firstly, allocating the majority of EU funding to municipalities by using objective criteria, secondly, allowing the municipalities to use the funding according to their own development programmes. In January 2011 we surveyed 40 officials in sectoral ministries to find out their views. The majority of the officials agreed that the involvement of the regional and local levels in sector policy planning is very (50% and 53%) or rather (43% and 35%) important. However, currently the importance of regional and local policy documents in sector policy making is rather low. Only 45% of respondents agreed that territorial policy documents have some effect on their sector's policy. The gap between the desirable and the actual situation can be explained with the very sceptical attitude towards the capacity of regions and municipalities to make the right decisions for their development. Thus almost a half of the respondents assessed the capacity of local municipalities to participate in sector policy planning as rather insufficient (46%). The capacity of planning regions was assessed higher - 38% evaluated it as rather insufficient and 33% as rather sufficient. Still the majority of the officials (72%) agreed that the decentralisation of policy planning to regional level would increase the level of cross-sectoral policy coordination. At the same time the decentralisation to local level is perceived sceptically as the majority of the respondents (69%) do not agree that it would increase the level of sector policy integration. Taking into account the results of our research, we suggest that a further promotion of bottom-up planning approach could be attained through strengthening the role of regional development programmes. First of all, the responsible bodies in close cooperation with regions and municipalities should identify fields in which EU funds could be managed more effectively in the regional and local levels. Secondly, the regions in close cooperation with sectoral ministries and local actors should focus their development programmes on the action in these fields. Last but not least, a significant part of the EU funds should be allocated to the implementation of these programmes. The funding should be allocated according to a mix of objective criteria, e.g. the number of inhabitants, the territory of the municipality and the previous growth trends (to evaluate the growth potential). This work has been supported by the European Social Fund within the project «Support for the implementation of doctoral studies at Riga Technical University.

#### Gateway J1

# THE GOVERNANCE OF THE DEVELOPMENT OF HIGH-TECH PARKS IN THE PEARL RIVER DELTA, CHINA: COMPARING GUANGZHOU SCIENCE CITY WITH GUANGZHOU KNOWLEDGE CITY

# Michael Waibel, University of Hamburg, GERMANY Philipp Zielke, University of Hamburg, GERMANY

China's transition on the road to an increasingly market-oriented economy has reduced the role of the Socialist state in direct resource allocation and therefore led to a shift towards a multi-player-arena in urban affairs. Innovative components such as strategic urban planning and the growing inclusion of non-state actors in development processes indicate a change in the direction of more market-oriented modes of urban governance. These modes seem to allow municipal governments to adopt a higher degree of flexibility and to implement a pro-growth-regime within a highly competitive urban environment. It is assumed that increasing inter-city competition requires urban development and redevelopment strategies aimed at advancement along the value chain to be constantly adapted. To enhance economic strength and competitiveness, a shift from labourintensive manufacturing towards modern service and high-tech industries is currently encouraged in the megaurban region of the Pearl River Delta (PRD). Based on urban governance as an analytical framework, we want to comparatively describe the actors behind the development of two high-tech parks in Guangzhou: Guangzhou Science City and Guangzhou Knowledge. Both aim to attract investments from the knowledge- and innovationbased economy; however, their modes of governances in terms of development contrast significantly. Whereas Guangzhou Science City is a mostly government-led economic entity, Guangzhou Knowledge City is currently being built by an investor from Singapore. This semi-state Singaporean enterprise has previously set up similar economic entities in Suzhou and Tianjin. Finally, our paper analyses the decision-making behind the specific development policy of these two science parks and concludes with some reflections as to which kind of approach is more successful.

#### Gateway G1

# SMALL TOWNS, NARROW SPACE, AND ASPIRING GOALS AN AUSTRIAN CASE STUDY ON HOW TO INTEGRATE DRIVING FORCES FOR A 'SMART REGION' INTO A REGIONAL DEVELOPMENT PROCESS

#### Manfred Walser, University of St. Gallen, SWITZERLAND

The region Walgau has experienced a massive change over the past 50 years and doubled its population between 1951 and 2010. The small-scale structured settlement generates bottlenecks for example in infrastructure, administrative power, and land use patterns. The regional development process 'Im Walgau' is aimed at handling this situation by increasing the cooperation between the 14 local municipalities. The process is characterized by a systemic approach. After a three years pilot phase funded by the Federal State level a new association was created and started its work in 2012 to deepen the regional development process. With respect to the idea of a 'smart region' a few components of the development process should be emphasized:

• The organisation of a multilevel governance structure to integrate the local, regional, and federal level using the 'Viable System Model' (Beer 1979).

• The shift from a project- driven development process towards a consistent regional strategy using a cybernetic system model to gather an structure the information.

• The far-reaching time horizon partly dealing with a time span of two generations (50 years) which includes a shift from anticipating the future development towards defining a desirable condition-to-be of the local community.

• And the integration of different target groups and the region's citizens using different (also web-based) methods of information, communication, and co-working which is also a question of how to advance from 'governance by government' to governance with government'.

The components seem to be able to foster a 'smart region' in the sense of minimizing the use of resources by processes of cooperation and compensation and by introducing new instruments into the regional governance structure. The approaches are not fundamentally new in regional science but constitute a huge challenge in practice. The challenge is not to introduce the use of a new instrument or methodology but to make it compatible with the rationality of politics' all-day life.

#### Gateway M

# SOFT SPACES IN SPATIAL PLANNING AND GOVERNANCE: THEORETICAL REFLECTIONS AND DEFINITIONAL ISSUES

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Concepts of space and place have emerged as an increasingly important focus for theoretical and empirical research in the spatial planning literature. The concept of soft spaces, in particular, signals an attempt to understand the implications of relational and non-state-centric geographies for spatial planning and governance. Allmendinger and Haughton's original conceptualization of soft spaces is firmly based on experience of planning reform in the UK under the New Labour governments. Indeed, the emergence of soft spaces in practice is thus associated with a recent 'spatial turn' in UK spatial planning. Faludi however, also employs the language of soft and hard spaces to explain the territorial politics of European Union spatial policy. For Faludi, Europe itself constitutes a soft space with fuzzy boundaries. He argues that the future of European spatial planning or territorial cohesion policy is tied to questions of territoriality and requires a fundamental shift away from statecentric perspectives which are currently dominant at a the level of inter-governmental policy-making. He effectively demonstrates the fundamental nature of the concept of soft spaces, through its application at the transnational level. This paper seeks to move towards a general, non context-specific, definition of soft spaces through an examination of the theoretical underpinnings of the concept and its relation to the wider literatures on critical regional studies, new regionalism and the sociology of space. Significant parallels are evident in the recent work of Harrison, Paasi, Deas and Lord among others. It is argued that the study of soft spaces in spatial planning must be accompanied by a critical awareness of the processes through which hard, territorial spaces are produced and reproduced over time. As Harrison has recently suggested, the interaction over time between soft and hard spaces and relational and territorial geographies can perhaps provide a more fruitful focus for analysis than an approach which privileges one or the other. To this end, the paper seeks to further explore of the temporal specificity of soft spaces. How can we conceptualise the gradual emergence of soft spaces over time and perhaps transition periods between soft and hard spaces? What role do soft spaces play in the territorial and institutional shaping of regions? Are soft spaces in fact a new phenomenon or a new approach to understanding the socio-political representation of space in spatial planning? The paper represents an early output of the international research project "Soft Spaces, Spatial Planning and Territorial Management in Europe", led by HafenCity University Hamburg and funded by Forschungs- und Wissenschaftsstiftung Hamburg.

# UNDERSTANDING THE PLANNING OF OPEN-SPACES IN TERRITORIES-IN-BETWEEN DUPUY'S NETWORK URBANISM APPROACH APPLIED TO AREAS IN-BETWEEN URBAN AND RURAL

# Alexander Wandl, Delft University of Technology, NETHERLANDS Remon Rooij, Delft University of Technology, NETHERLANDS

This paper reviews the framework of Dupuy's (1991) network operators - technical networks, consumption and production networks, networks by individual urban households - by investigating how it could be used to describe and understand planning tasks in Territories-in-between (TiB). TiB, which cannot solely be explained as an intensification of urban functions in the rural environment, are areas where new functions, uses and lifestyles arise as a result of the on-going interaction of urban and rural elements (Sieverts & Bölling 2004; Viganó 2001; Woods 2009; Huhlmann & Promski 2007). Terms and concepts like suburbanisation, urban-rural relations, sprawl and peri-urban are just not living up to the diversity and complexity of these territories. Therefore, territories-in-between is used in this paper as umbrella term to avoid to lapse into often locally manifested assumptions and connotations related with different concepts like Zwischenstadt (Sieverts, 2001), Città Diffusa (Secchi 2001), Stadtlandschaft (Passarge, 1968), Spread City (Webber, 1998) and many more. Harmers (in Andexlinger, 2005) calls these areas Shadowland. He sees them as areas forgotten and neglected by planners and policy makers. 'Planners, designers and administrators often lack a sufficient insight into what goes on in areas that cannot be pinned down in conventional categories. They deny the conditions in which such areas emerged, ... who is active in them....' (Andexlinger, 2005: 50). What Harmers concludes for the Dutch case was confirmed by a survey among 136 experts on spatial planning across Europe undertaken by Mcrit (2010). More than 80 per cent agreed with the statement that' Europe is an urbanized continent. It is largely made of 'middle landscapes', or 'hybrid geographies'...' (Mcrit et al. 2010: 5). More than 50 per cent expressed the opinion that actual spatial policies have to be reformed to consider these kinds of territories. In other words, the problem we are faced with is the struggle of planners and policy makers to understand and act in areas that are in a transitional state between urban and rural away from an urban rural dichotomy. Viganò emphasised two important aspects of landscape urbanism, which enriched the debate about city and territory. 'The first is ... that it tackles and defines possible strategies when the conditions are such to raise doubts about existing design and planning tools' (Viganò, 2011: 12). The second 'is the role of the open space in the construction of the contemporary city, ... of a diffuse urban condition in which the void, in its various declinations ... becomes part of the design of the new habitat.' (Viganò, 2011: 12). Therefore, a dominant spatial characteristic of TiB is the intermingling of built and unbuilt. So, analysing TiB from the open space offers an interesting perspective on the planning in TiB. The paper focuses specifically on Dupuy's levels of network operators organising space (technical networks, production / consumption networks and individual urban household networks) and the relations between them. Dupuy introduces the term operator as a 'new brand of actors..., which does not work on behalf of a single individual. It groups together a number of different transactional projects, pooling several requests for interlinkages to be established between various points through a collective delegation of authority.' (Dupuy, 2008: 42). Rocco (2008) introduced two additional levels to Dupuy's network approach to be able to analyse and evaluate spatial planning and spatial policy making. First, Dupuy's three network levels do not operate dissolved from their geographical setting. Therefore, Rocco adds the level of the 'first nature'. Secondly, the interface 'governance' Rocco proposes, refers to the power play which is described as 'the processes that create a positive tension between the public sector, the private sector and the civil society' (Rocco, 2007: 142). This paper investigates how the above described framework can help to better understand the for TiB crucial planning task of the transformation of open spaces. Open spaces in TiB are torn between the conservation of landscape under the threat of urbanisation on the one hand and the need to diversify the services/amenities provided by open spaces to people living in TiB on the other.

# Gateway M SOFT SPACES AND PLANNING IN THE NETHERLANDS: A CHRONOLOGY

#### Bas Waterhout, Delft University of Technology, NETHERLANDS

Soft spaces play an increasingly important role in today's spatial planning and territorial governance. This is in particular true in the Netherlands where soft spaces have been an important rationale for the maturing of post war planning. By presenting a chronology of soft spaces and their role in planning policies in the Netherlands, this paper aims to analyze the intrinsic role of soft spaces in planning as well as their use, interpretation,

development and the aims they serve. The post-war history of spatial planning in the Netherlands is strongly related to the spatial concepts of the Randstad and the Green Heart. Both can be characterized as soft spaces: fuzzy or non-demarcated areas of which the internal structure is not entirely clear. Whereas the Randstad is still a soft space, the Green Heart, in an ultimate attempt to protect the remaining open areas, has lost its softness when in the mid 1990s its borders were indicated in great detail in a national Key Planning Decision. Its borders and the restrictive planning regime attached to it got translated in local land use plans in which the Green Heart usually got the status of a no-go area, in planning terms at least. In the Dutch context there are more examples of soft spaces in the form of a spatial concept that becomes the focal point for a number of spatially relevant policies. Concepts such as mainports, brainports, greenports, development corridors and urban networks spring to mind as spatially roughly specified places and areas of policy intervention. Also, like the Green Heart, there are other examples of soft spaces becoming hard spaces. Rescaling attempts under the law on municipal cooperation led to the formation, also in the mid-1990s, of eight strictly defined so-called WGR+ areas around large cities having specific competences in the fields of amongst others transport, housing and planning. Like the Green Heart, which formally has been abolished, also the WGR+ areas seem to have reached the end of their political life cycle criticized as they are in terms of their weak legitimacy and policy effectiveness. They will probably be replaced by informal cooperation structures and become softer again. Examples of such informal cooperation bodies are the quite recently formed South Wing cooperation and the more successful Amsterdam Metropolitan Area, both of which eclipse existing WGR+ areas. Apart from these usual suspects the paper will also look into more recent attempts where on a project based level policy makers and other, mostly private stakeholders aim to soften up areas. This concerns in particular areas where large infrastructure and real estate developments are aimed to become realized. In such cases social, institutional, political and cultural boundaries which define a place have to be broken down. Based on these examples the paper will reflect on various types of soft spaces and how they affect territorial governance and planning in particular. A development seems to become visible from planning using soft spaces by means of introducing spatial concepts, to a more confined role of planning in the case of hardening spaces, to, more recently, a role of planning and policy making in more general somewhere in the margin of place development and pragmatic efforts to 'getting things done' (Allmendinger & Haughton 2009). Common in these approaches, or at least so it seems, are a new treatment of space and place (Davoudi & Strange 2009), the focus on (partly) integrated and joint-up solutions, on governance and the role of private and civic stakeholders in policy delivery. Also these processes are characterized by informal and self-regulated forms of decision making and legitimacy, which in the literature are referred to under the umbrella term of deliberative democracy and network governance (Sorensen & Torfing 2009). More in general it can be argued that planning for soft spaces relates to pragmatic solutions to deal with the fragmented governance and spatial landscapes of our increasingly post-modern societies. It is not all positive though. The pragmatic orientation and focus on delivery lead to issues of participation and legitimacy and, related to this, possible favouring of objectives of powerful groups over the soft voices.

#### Gateway M

# TERRITORIAL CRAFTING AND THE ROLE OF INFRASTRUCTURE: THE CASE OF OFFSHORE WIND POLICY IN SCOTLAND

#### Brian Webb, University of Manchester, UK Stephen Hincks, University of Manchester, UK

The UK's devolution experiment has been ongoing since the late 1990s following the establishment, by New Labour, of different government structures for Scotland, Wales and Northern Ireland. This exercise was driven by global imperatives and re-invigorated national and regional territorial identities. As institutions have emerged and evolved and as 'local' identities have been thrust into the ascendancy, policy architectures and their delivery mechanisms have diversified across the devolved territories of the UK. This 're-territorialisation' has given rise to alternative strategies of territorial 'crafting' – the mechanisms through which the re-territorialisation process is realised – that have been driven by distinct and often competing local imperatives. One of the pinch points in the re-territorialisation process is the 'crafting' role played by infrastructure. Infrastructure delivery is often driven by national needs and demands but the effects of delivery tend to be felt most acutely at the local level. In the UK, devolution has and continues to create a complex policy mosaic as UK government agendas manifest themselves 'locally' within the devolved territories. In some case, this has created significant conflicts and challenges for governance. In other instances, national and 'local' policy agendas have complemented one another very effectively. One such instance can be found in the UK and Scottish Government's quests to reduce carbon emissions. Both governments, in consultation, have sought to introduce targets for carbon reduction and both have emphasised the potential of renewable energy in achieving

their targets. Interestingly however, despite the complementary nature of the two agendas - which are in fact driven by global rather than national imperatives – there is evidence that the question of renewable energy is serving to underpin wider re-territorialisation imperatives in Scotland and that renewable energy infrastructure in particular is becoming a key territorial 'crafting' strategy within this agenda. In light of this, this paper focuses on the creation and implementation of Scotland's offshore renewable wind policy and seeks to understand the extent to which renewable energy infrastructure is being used as a 'crafting' strategy in the pursuit of a wider re-territorialisation agenda. To do this, this paper draws on an analysis of Scottish government policy documents as well as semi-structured interviews with policymakers and stakeholders across Scotland. The paper begins by drawing out key concepts related to devolution and decentralised government, connecting the structures and powers of government with their capacity to establish mature bureaucracies capable of developing and implementing independent policy agendas. Concepts related to the construction of public policy are then linked to cultural identity formation, highlighting the influential institutional role that government policy can play in shaping public perceptions of national identity through the use of cultural and historical understandings of space and place. The paper then moves towards a detailed analysis of Scotland's offshore wind energy policy, the driving forces that have influenced the development of the policy, and the mechanisms that are currently being used to implement it including issues around identity, aspirations, geographies, historical precedents and imaginations, and culture. Following this, we then draw out the implications of the research findings for policy and wider academic debates.

### Gateway M1

# COPING WITH PERIPHERALISATION – GOVERNANCE RESPONSES IN TWO GERMAN SMALL CITIES

### Sabine Weck, ILS - Research Institute for Regional and Urban Development, GERMANY Sabine Beißwenger, ILS - Research Institute for Regional and Urban Development, GERMANY

In this paper, we focus on two small cities in Germany and their strategies and opportunities to cope with peripheralisation. Governance responses are analyzed out of two perspectives. Firstly, we specify the interactions between state, market, and civil society, and the characteristics of local urban coalitions. In accordance with Le Galès (2000) we see the type and organization of private actors as an important factor explaining urban governance characteristics and perspectives in the cities under study. The key question is, whether and how local governance modi changed in reaction to local crises. Secondly, in the tightly integrated federal German planning system, the level of support from the Land and the role of national (competitive) funding are of decisive importance for realizing local strategic projects. Thus, the second key question is, whether and in what forms the cities under study position themselves actively within the multi-level governance system. The paper is based on research in two cities in the Southwest of Germany, both of which have been suffering from de-industrialisation and out-migration processes for the last decades. Research on the two cities under study, Pirmasens and Völklingen, was part of a wider research scheme\* on the analysis of the development of six small cities outside major metropolitan regions and on what is being done on the local level to proactively position such cities in the global, national and regional competition for people and employers. In the frame of this research project, we used the concept of peripheralisation – as a complementary process to centralization- to analyse structural changes in the cities under study. The two case studies presented are similar cases in the sense of both cities having been dependent on single, large-scale industries. For Pirmasens, this was the shoe industry, for Völklingen it was the steel and mining industry. In reaction to the crisis, government and governance structures took on very different characteristics, with Pirmasens defining a collective local project on how to deal with structural change, while Völklingen shows a more fragmented approach to overcome peripheralisation. We analyse the role of private actors in responses to peripheralisation. Based on research findings, we argue that it is the locally specific interplay of local governance and the active use of supra-local resources that define the chances of the cities under study in dealing with peripheralisation. Le Galès, Patrick (2000): Private-sector interests and urban governance. In: Arnaldo Bagnasco/Patrick Le Galès, Cities in Contemporary Europe, Cambridge University Press, pp. 178-197. \*Research Project 'City Careers in Peripheralised Areas' ('Stadtkarrieren in peripherisierten Räumen'), 1/2009 to 12/2011, IRS - Leibniz Institute for Regional Development and Structural Planning, Erkner b. Berlin (Matthias Bernt, Thomas Bürk, Manfred Kühn, Heike Liebmann, Hanna Sommer) and ILS – Research Institute for Regional and Urban Development, Dortmund, (Sabine Beißwenger, Rainer Danielzyk, Sabine Weck). A total of six middle-sized cities in Germany have been studied within the project.

### Gateway K3

# **'LOCAL BUZZ – GLOBAL PIPELINES' REVISITED: CONTEXT-SPECIFIC FEATURES OF RESEARCHERS' NETWORKS**

### Claudia Werker, Delft University of Technology, & RWTH Aachen University NETHERLANDS Martina Fromhold-Eisebith, RWTH Aachen University, NETHERLANDS Marcel Vojnic, RWTH Aachen University, NETHERLANDS

Ever since the concept 'local buzz – global pipelines' was introduced (Bathelt, Malmberg, & Maskell, 2004; Storper & Venables, 2004) it has trigged the interest and imagination of scholars investigating the functioning of knowledge networks in a multi-scalar environment. The concept indicates the interplay between local agglomeration economies ('local buzz') and the access to knowledge sources outside the region ('global pipelines'). 'Local buzz' provides sufficient institutional and organizational thickness leading to knowledge spillovers. This enables innovative agents to be creative under unfamiliar and uncertain circumstances. At the same time 'global pipelines' sustain access to certain knowledge bases in different parts of the world. Therefore they provide a major remedy against lock-ins of the home base of innovative agents. Most analyses on 'local buzz – global pipelines' constellations concentrate on the net-works of firms (Asheim, Coenen, & Vang, 2007; Isaksen, 2009). However, already Storper and Venables (2004) suggested that researchers in academia would benefit a lot from 'buzz'. Still, very little empirical research was conducted on universities and aca-demic researchers in this regard. For the peripheral Dutch region Twente the university seems to form the hub of 'global pipelines' for the local buzz in some scientific areas, e.g. nanotechnology (Benneworth & Hospers, 2007). This narrative as well as a theoretically underpinned assessment of Scandinavian firm clusters (Asheim et al., 2007) suggest that it depends a lot on the context how academic researchers build and use their specific properties of 'local buzz - global pipelines'. Discussing networks based on 'local buzz - global pipelines' qualities poses various challenges with respect to criteria that matter for a meaningful differentiation of variants. In particular geographical proximity used to capture all different kinds of proximity (Boschma, 2005). However, we get a much clearer picture by disentangling geographical proximity, limiting this concept to physical distance and analysing cognitive or techno-logical, social or institutional proximity on top of it. To make 'local buzz – global pipe-lines' more specific and operational we suggest to disentangle the influence of different kinds of proximity. In our paper, we will reveal the context-specific features of the networks of researchers working at universities. 'Context' is assumed to be shaped by the scientific discipline and the (multi-scalar) geographical environment in which researchers operate. Our analysis starts off with a critical review of the literature on 'local buzz – global pipelines' (Section 2). In our theoretical model we combine the concept of 'local buzz – global pipelines' with different notions of proximity. We show that the geographical characteristics and those of the technical discipline shape the ego-networks of academic scientists. In Section 3 we will introduce our data. We used a matched-pairs approach, i.e. we interviewed academic researchers at RWTH Aachen University and Delft University of Technology who contribute to the same technical discipline and are of similar seniority. In addition to information on these matches we provide information on the characteristics of the technical disciplines of included researchers as well as on the regions they are located in. While Aachen is a revitalized old industry region in Germany, bordering to the Nether-lands and Belgium, Delft is part of a larger metropolitan area in the heart of the Nether-lands. Using software for qualitative data analyses (MAXQDA), we are able to identify major geographical and technical context variables that specifically shape 'local buzz and global pipelines' features of academic researchers (Section 4). In particular, we can empirically confirm what Storper and Venables (2004) suggested as part of their theoretical assessment, namely that while researchers in academia would benefit a lot from 'buzz' they do not necessarily need co-location. We conclude with a brief summary and some further research questions emerging from our results (Section 5)

### Gateway K1 INNOVATION AND ITS SOURCES IN SWEDISH CITIES AND TOWNS

Hans Westlund, KTH & JIBS, SWEDEN Hans Lööf, KTH, SWEDEN Amy Olsson, KTH, SWEDEN Pardis Nabavi Larijani, KTH, SWEDEN

The new combinations of production factors that Schumpeter denoted "innovations" are in today's knowledge economy increasingly understood as being new combinations of knowledge. In every step of a process of innovation – from new idea to new product – new combinations of knowledge are essential. In the global

knowledge economy, no single actor body has these factors under its own roof, but is dependent on interaction with others. This interaction is often "passive", i.e. the firm is benefitting from spatial externalities such as accessibility to human capital and specialized labor, creditors, formal and informal institutions (the latter a form of social capital, see Westlund 2006) and particular groups of customers. Interaction can also be active and formalized. The firm establishes formal collaboration with R&D partners in various stages of the innovation process. In the theories of territorial innovation systems, it is the active interaction between business, research and government that constitutes the framework of an innovation system. The cost of interaction decreases with accessibility, which is a function of distance, transport mode, communication alternatives and other preconditions for communication (e.g. language barriers, education, administrative barriers, time differences, etc.). This means that interaction between actors within a region normally is higher than between actors of different regions. This also means that high accessibility in general contributes to higher levels of interaction, which is the fundamental explanation for the existence of territorial innovation systems. As suggested by the theory of agglomeration economies, a metropolitan region offers a firm both accessibility to local and regional knowledge sources and greater opportunities to access global knowledge sources than more sparsely settled regions. The corresponding benefits of metropolitan diversity, novelties and flows of ideas are often classified as Jacobs' externalities or urbanization economies (Jacobs, 1969, 1984), and they may be perceived as the consequence of a metropolitan region as a cluster of clusters (Johansson and Forslund, 2008). Thus, high accessibility to the spatial externalities provides firms in metropolitan regions with spillover advantages. When workers move from one employer to another, there is also a transfer of knowledge embodied by the individual who changes job. The associated knowledge advantage of such spillovers, which can be related to Rauch's (1993) claim that human capital in a region has the role of a local public good, also finds support in Lucas (1988). Also, the proximity to universities and other organizations with research capacity in large urban regions constitutes an additional advantage for innovation activities in these regions. Even if the advantages of large agglomerations for both entrepreneurship and innovations are well documented, we find more variation in both phenomena than can be explained by agglomeration externalities alone. There would appear to be other factors that promote the necessary interaction of innovation processes. These may also be spatially bound but may perhaps better be described as place-based, since they reflect a variety of tangible and intangible factors related to specific places. One such group of factors is what we here call the Entrepreneurial/Innovative place potential. We focus on two aspects of place potential: enterprise-related social capital related to place and the entrepreneurial/innovative policy potential of the place itself. This paper tests the impact of a number of spatially bound and place-based factors on various measures of innovation in the Swedish cities and towns (municipalities). Section 2 discusses the association between the two interrelated concepts of entrepreneurship and innovation. Section 3 presents an outline of factors influencing innovation. Section 4 makes a brief overview of the research on the determinants of innovation with a particular focus on studies of social capital and innovation on spatial levels. Section 5 discusses measures of innovation and its determinants. Section 6 presents the model and the empirical results. Some concluding remarks are given in Section 7.

#### Gateway J

# SPATIAL CONCENTRATION OF INDUSTRIES AND NEW FIRM EXITS: DOES THIS RELATIONSHIP DIFFER BETWEEN EXITS BY CLOSURE AND BY M&A?

### Anet Weterings, Netherlands Environmental Assessment Agency & Rotterdam School of Management, Erasmus University, NETHERLANDS

### Orietta Marsili, Rotterdam School of Management, Erasmus University, NETHERLANDS

Motivation Only recently, studies have started to systematically examine whether regional conditions affect the survival chances of new firms (e.g., Sorenson & Audia 2000, Folta et al. 2006, Fritsch et al. 2006, Wennberg & Lindqvist 2009). These studies show that indeed regional factors play an important role and add significantly to the explanation of new business survival (Fritsch et al. 2006). However, this previous research shows inconsistent results concerning the effect of the spatial concentration of firms on new firm survival. While some studies find that the survival chances of new firms increase when they are located in a region with a higher concentration of similar or related firms, often referred to as clusters (Falck 2007, Wennberg & Lindqvist 2009), other studies show that being located in such a region lowers the survival chances of firms (Sorenson & Audia 2000, Staber 2001, Folta et al. 2006). In the literature, explanations can be found for both results. Literature in economics and geography emphasize the positive effect of clusters on firm performance. Firms located in a cluster would perform better than firms at a more isolated location, because the spatial concentration of similar or related firms at a more isolated location, because the spatial concentration of similar or related firms at a more isolated location, because the spatial concentration of similar or related firms generates agglomeration economies. Organizational ecology studies, on the contrary, argue that being located in a cluster is likely to lower firm survival chances. Many similar types of firms located in close

proximity would increase rivalry and, therefore, being located in a cluster lowers a new firm's survival rate. Thus, both theoretically and empirically the effect of being located in a cluster on the survival chances of new firms is still far from unambiguous. However, studies often do not distinguish between different types of firm exits, while firms can exit for different reasons and, therefore, the effect of the clustering of firms may not be the same for each type of firm exit. In some cases, entrepreneurial exit may actually be a successful outcome (Cefis & Marsili 2007). Whereas firm exit through bankruptcy is obviously a sign of poor performance, acquisition may also represent a successful outcome rather than a failure. The spatial concentration of firms may only increase the likelihood of firm exit due to acquisition and not the likelihood of other types of exits (McCann & Folta 2008). In that case, being located in a cluster does have a positive effect on new firm performance despite the fact that the number of exits is higher in such regions. The research question of this paper is: 'How does the spatial concentration of industries affect the likelihood of firm exit by closure and by acquisition?'. In answering this question, we provide currently lacking insights in the potential difference in effect of the clustering of firms on the exit of new firms due to closing down and acquisition. Data and methodology To answer the research question, we use the Business Register of Statistics Netherlands. This database contains demographic and domestic employment data of all firms registered for fiscal purposes in the Netherlands over the period 1994-2005. The set is composed of all firms that existed throughout the year and of all those that entered and/or exited during the year. The events 'entry' and 'exit' are defined with respect to the inclusion or exclusion from the dataset and the data specifies the reason for inclusion or exclusion of a firm. This allows us to distinguish between different exit types We use a competing risks model to estimate the effect of the spatial concentration of industries on the likelihood of exit by closure and by M&A. As explained above, with this model, we examine whether the clustering of firms only increases the likelihood that a firm will exit due to acquisition and not firm exits due to closing down. If so, this would confirm the assumption of the economics and geography literature that firms benefit from being located in a spatial concentration of similar firms. If not, new firms may suffer from the increased rivalry in such regions.

### *Gateway* C

# GOOD TO BE HOME? TIME-USE AND SATISFACTION LEVELS AMONG HOME-BASED TELEWORKERS

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A significant outcome from the growth in the flexibility of paid work during recent decades is the increased opportunity to work at home. Increases in home-based teleworking, a variety of 'teleworking', have been led by advances in ICT and the internet. It has been suggested that the use of home-based teleworking has the potential to provide significant benefits to both employer and employee. However, the increasing spatial flexibility and diversity of paid work presents a number of challenges. Employees must be able to adapt and manage a range of demands associated with moving from one location to the next or working from home. Evidence also points to problems arising due to the unbounded nature of non-standard forms of employment. Specific difficulties may occur when paid work moves into the domestic sphere, including dividing time and space between work and the home, the potential for overwork, loss of social networks, and loss of identity. This paper seeks to explore the outcomes for home-based teleworkers with reference to patterns of time-use, and satisfaction with work and leisure, using UK data extracted from the BHPS. Descriptive analysis is developed using panel least squares regression analysis. Specifically, the empirical analysis seeks to answer the following research questions:

(1) Are distinctions present in the time-use of men and women home-based teleworkers?

(2) How does home-based teleworking impact employee satisfaction levels? Findings reveal that the timeuse of women homeworkers is distinct. Housework represents a particular time constraint. Nevertheless, the evidence reflecting on satisfaction from both the descriptive and panel regression analysis suggests that men and women employees engaging in homeworking are relatively more satisfied with their 'choice' to do so. This is also the case for other forms of teleworking with respect to job satisfaction. Difficulties are faced, especially by travel-teleworkers, in respect to leisure time reflecting the potential double-edged sword of working flexibly. And while homeworkers report greater levels of satisfaction they are much more pronounced in relation to paid work than leisure time. The extensive hours of housework reported among women in the BHPS sample may go some way to explaining these differences. Overall, though, home-based teleworkers do appear more satisfied with their 'choice' to work from home, suggesting considerable benefits especially for working mothers.

### Gateway M1 THE DISCURSIVE CONSTRUCTION OF KNOWLEDGE: CAN A POLITICS OF REPRESENTATION HELP TO BETTER UNDERSTAND THE PROCESSES OF PERIPHERALISATION?

### Joanie Willett, University of Exeter, UK Thilo Lang, Leibniz-Institute for Regional Geography, GERMANY

The question of core/periphery relationships is an enduring one in terms of policy analysis and regional development. In dealing with these current policy and research have mainly taken a structured approach, which focuses on describing differences rather than exploring relationships between regions. Moreover, whilst being committed to reducing socio-spatial inequalities EU policy has tended to follow a strongly urban focus, privileging metropolitan growth, assuming that this would result in spillover effects, improving the fortunes of the peripheral hinterlands. Through fostering inter-regional competition, successful areas have been able to develop global networks attracting high profile business services, becoming control points of the economic system. However, non-metropolitan and less networked regions have become perceived as less attractive locations for economic activities, and regional disparities have increased in recent years, both within, but also between 'old' and 'new' EU members states. This process is enhanced by national discourses that place higher value on particular regions and developments and thereby devalue others. Previous studies have found tensions between how places are represented and how they are perceived. In contrast to the policy emphasis on infrastructural development, these studies explore the discursive relationships between economic centres and peripheries and argue that peripheralisation is a process which is strongly linked to how some spaces are represented by economic centres. Here, peripheries can find themselves described in ways that reinforce dependency through being characterised as 'stagnant', 'backward', 'rural' and agents of their own economic misfortune. Such dominant discourses can lead to collective orientations hindering local economic development e.g. by increasing outmigration or through a reluctance of 'core' businesses to work with peripheral organisations. This negatively impacts on both the anticipated spill-over effects of neo-liberal models, and the capacity for peripheral areas to compete globally. Although the impacts of neo-liberal policy on regional development have been subject to a large body of research, so far, there has been little work to understand better the relationship between the social construction of place, regional policy and economic development. By applying ideas of 'difference' and 'otherness', which are most commonly used within critical political theory, a discursive understanding of periphery formation goes beyond earlier ideas of polarisation. Moreover, it points to the important role which dominant representations of place and discursive power relationships have over processes of peripheralisation. This paper will use critical political theories to explore the analytical potential of political representation and the construction of knowledge as a basis for better understanding the dynamics of peripheralisation. It will draw on theorists such as Merleau-Ponty, Said, Hechter, Foucault, Connolly and Laclau and Mouffe for their analyses of knowledge, power and representation, to consider the impacts that a politics of representation has on regional economies, and how these discourses affect regional ability to operate effectively within the local and global economy.

### Gateway K2

### INSTITUTIONAL PLASTICITY AND TERRITORIAL RESILIENCE: EXPERIENCES IN SAXONY

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Territorial resilience is interpreted as evolutionary challenge to cope with vulnerability to shocks and stress on adaptive capabilities. Many studies deal with factor endowments, related and unrelated variety, functional structures of regions or linkages with cluster evolution and life cycle models. The focus in this paper lies on the impact of institutional structures on territorial resilience using models of institutional change, psychological theories and path-dependence. The concept of institutional plasticity describes preconditions for changes even within a path-dependent institutional setting by distinguishing between numerical plasticity, where peripheral actors simply face more scope for changes, as attempts to adapt the rules (interpret the rules in a different way or even add new rules) do not find the attention of the core actors and do not directly challenge the existence of the rules for the rest of the system, and functional plasticity, where new functions of rules might offer the opportunity to deviate from existing pathways. This institutional perspective serves as a framework to explain adjustments within the industry in Saxony after the German unification. Despite a huge disrupting change in the economic conditions after 1989, the industry kept its specialisation in microelectronics and silicon manufacturing by adjusting the formal and informal institutional structures and extending the fields of industrial

applications to photovoltaic and organic electronics industry. Based on interviews and extensive exploitation of documents and investigations of firm demography, the paper discusses the role of regionally-specific preconditions for the institutional pathways and their impact on adjusting capabilities.

# Gateway B POST-MINING REGIONS UNDER CHANGING FRAMEWORK CONDITIONS IN EUROPE

### Peter Wirth, Leibniz Institute of Ecological Urban and Regional Development, GERMANY

From the 1970s to the 1990s, structural change in old industrial regions was a central subject of regional policy and research in EU countries. It was accompanied by enormous efforts on the part of the EU and member states to support the transformation of big metropolitan regions like the English Midlands and Northeast (UK), the Ruhr District (Germany), Nord-Pas-de Calais (France), Asturias (Spain), and Limburg (Belgium). This found expression in programmes like RECHAR and RESIDER, which promoted the restructuring of coal and steel regions in the EU from 1989 to 1999. Today post-mining development has rapidly lost its importance in European regional policy. There are a number of reasons. First, the eastward enlargement of the EU in the first decade of the new millennium set new priorities in EU cohesion policy. Spatial disparities inside the "old" member states became less important than the grave inequalities between western and eastern regions in Europe. Against this background, it is understandable that the political focus on structural change in old industrial regions weakened. Precisely in the new member states, however, there are many old industrial regions, notably former mining areas that are undergoing dramatic change. They are struggling with the many adverse effects of structural change in local economies after mine closure. When mining ceases, such regions usually face major challenges to their economic, social and ecological future. Even though they now have access to EU structural funds, their specific situation and needs are less well reflected in regional policy. Under such circumstances, the options for tackling these challenges using the partnership approaches offered by EU cohesion policy become a major focus. In the framework of the ReSource project; 'Turning problems into potentials' funded by the European Union Development Fund (INTERREG IVB, CENTRAL EUROPE) between 2009 and 2012, the problems, potentials, und perspectives of seven post-mining regions in six European countries have been examined (Austria, Czech Republic, Germany, Hungary, Poland, Slovenia). The results give cause for concern, because (1) the multiplicity of problems overtaxes most of the regions affected, and (2) many EU and national regional policy tools do not meet the needs of mining regions. Regions characterised by small and medium-sized towns have particularly little capacity to act. This paper focuses on the direct and indirect effects of the multilevel governance and partnership approach in EU cohesion policy and inquires into the value added and deficiencies encountered. Drawing on a number of case studies, it stresses the importance of collaboration within individual ReSource partner regions. The direct, practical measures of the project mainly address local needs (infrastructure upgrading, small-scale investment, concept development, etc). This also involves fostering learning effects for partners by encouraging the exchange of experience on a practical and output-orientated basis. In addition, this paper argues that the indirect effects on multi-level partnership from projects financed by EU cohesion policy can be the real "added value" for participating partners. In many cases, such projects draw a great deal of attention to local problems and can stimulate actors to tackle problems pro-actively. Participation can thus help to break any deadlock between levels of governance. Transnational collaboration is particularly important in regions with little capacity to act and which often suffer from conceptual and organisational shortcomings. These indirect effects of partnership can in some cases be highly effective in setting impulses for regional development and the modernisation of structures.

#### Gateway UF1

# BRINGING THE COUNTRY TO THE TOWN: THE POTENTIALLY CONNECTIVE ROLE OF THE URBAN FRINGE

### Michelle Wishardt, CUDEM, Leeds Metropolitan University, UK

The urban fringe is too valuable to turn our backs on. This is the place for government to be targeting increasing access to the countryside, close to where close to where people live. Too many of our urban fringes have become a no-man's land...' (Harvey, S. and Fieldhouse, K., 2005) Despite the traditional separation of planning functions for urban and rural areas the potential functional significance of the urban fringe in providing a bridge to greener spaces for urban residents has recently been highlighted. Implicit in this notion of

maximising 'rurality near the city' (Leinfelder and Vanempten, 2008) is the perception that the urban fringe should serve the needs of the urban majority, a normative assumption not universally shared by some critics who see it as part of the process of urbanising surrounding rural areas. Irrespective of the broader implications, those that have sought to make use of otherwise unused green spaces in urban fringe areas for the benefit of neighbouring urban communities have not found the process particularly easy, this despite the fact that in a SURF survey we found that providing the urban population with access for nature and recreation was cited most often when questioned about the role of the urban fringe. There is therefore something of a gap between aspiration and reality This paper explores some of the difficulties inherent in trying to make rural fringe areas a resource for cities and towns. These are varied according to the region and context and have many sources. The conflicting interests of landholders and stakeholders in the urban fringe and nearby urban dwellers, the dumping of less favoured functions in the urban fringe, poor land value and both duplication of administrative control and the inertia of planning which is more interested in containment than either improvement or management (Gallent et al, 2006) are issues which have been raised in urban fringe literature. The experience of partners actively engaged in the current Interreg SURF project whose activities have involved seeking to make green spaces in the urban fringe accessible will be assessed in the context of these observations. Illustrations of both obstacles faced and efforts to overcome them will be drawn from case studies across North West Europe. While in a few instances access is prioritised, it will be shown how in others, different priorities for green spaces in urban fringe areas have pushed that of access down the agenda. Considerations are not uniform, they may be the protection of natural habitats and species or, by contrast, they may relate to development. This raises the issue of how feasible the concept of multi-functionality, which had become something of a mantra in the UK in recent years, can be in practice.

### Gateway N

### COPING WITH CORRIDORS: AGGLOMERATION ECONOMIES IN EUROPEAN TRANSPORT CORRIDORS

### Patrick Witte, Utrecht University, NETHERLANDS Frank van Oort, Utrecht University, NETHERLANDS

The future development of transport corridors in the new core transport network of the European Union (EU) is one of the main objectives of recent EU transport policy. This corridor approach is advocated as a means to the coordinated development of infrastructure within the core network. Past experience has shown that the implementation of cross-border infrastructural projects is very difficult in a transport network of divergent systems, including a multitude of transport bottlenecks. Transport corridors, incorporating transnational transport networks of infrastructural, urban and economic activity, are therefore being viewed as 'the way forward' in EU transport planning. It is thus assumed that a well-functioning transport corridor will contribute positively to regional economic development. The (economic) importance of transport corridors is increasingly being recognised in both academic and policy discourse on concepts such as transnational governance, trying to face the increasing interdependency of regions and cities. However, the empirical validity of prospects for regional economic development potential in transport corridors is much less evident. The aim of this paper is therefore to fill this hiatus in the knowledge on corridor development, by carrying out a quantitative, empirical analysis on the factors influencing the economic development potential of regions interested by transport corridors. In this paper, regression modelling using a unique dataset of 227 European NUTS-2 regions will be supplemented by performing spatial regime analyses on at least three distinct European transport corridors. We will test for the occurrence of agglomeration externalities both inside and outside the corridors. Among the corridors identified is the important and well-known transnational transport axis 'TEN-T Corridor 24', connecting the hinterlands of the Port of Rotterdam (The Netherlands) and the Port of Genoa (Italy). This paper argues that regions within European transport corridors grow faster in employment, being embedded in a diverse economic environment, compared to other European regions. This outcome builds on the notion that the type of agglomeration economies in combination with the structure of the economy matters for the prospect of structural economic growth in regions. These findings bear similarities to the suggestion that agglomeration economies will positively contribute to economic growth in core regions, reinforcing the uneven distribution of economic activity across EU territory. In this way, the outcomes of this paper do not only contribute to enhancing the empirical scrutiny of the corridor concept in EU transport policy, but also provide interesting new insights on how to cope with corridors in developing smart, sustainable and inclusive places.

#### Gateway A

# REGIONAL DEVELOPMENT IN THE BALTIC-BLACK SEA REGION: THE BALTIC EXPERIENCE FOR UKRAINE

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The central question under author's consideration is that of regional and cross-border development for Ukraine in the context of its European integration perspectives. The given paper is dedicated to the analyses of the complex integration process, connected with necessary state-level system reforms, and underlying reasons of the national fail to gain the regional policies norms and standards, peculiar to the associated membership in the European Union. The value of the regional development policy for today's Europe, being in the process of further integration, cannot be overestimated. Regional processes have become an integral part of the all-European growth, which promotes establishment of favourable conditions for effective economic integration. Under these conditions the regions have become sub-national political-territorial units of regionalization in the European integration process. The above mentioned factors highly conceptualize functioning of 'young' European regions and regional associations, which are constructed around specific regional interests, deriving from the socio-political 'bottom'. The concept of 'Europe with the regions' promotes establishment of new regional reality being less idealistic and corresponding to strategic rationale - economic and (geo-)political independence. The relevance of the study on regional development in the Baltic-Black Sea area's regions in comparative perspective is hereby conditioned by the growing influence of the integration processes, taking place in EU, on the development of all post-socialist countries with Ukraine among them. In recent years, the border regions of western Ukraine have become active participants of the programs of cooperation between Ukraine and the European Union in the sphere of cross-border integration. Euroregions claim to play the role of certain models of integration between Ukraine and European Union on the regional level. Taking into consideration the state and regional management experience of the united Europe and its unitary member-states in the field of regional policy, we can think about new perspectives of regional development for Ukraine. While officials and expert field representatives talk about reforms and obvious absence of a consolidated position among Ukrainian governors as vibrant obstacles for integration, the decision-makers suggest another point of view concerning long-suffering shift of Ukraine to the EU membership: the hidden reason of Ukrainian 'remoteness' from the EU, soundly presented by the Euro-officials' non-official position, is the absence of necessary European political will, according to which another large, highly problematic East-European postsoviet state should get 'a green light' for accession. So, what should be a decision? Reforms or judges? For us it seems to be a question of whether to develop or to wait, doesn't it? The answer is obvious. Notwithstanding political processes in the European Union or its foreign policy priorities, as well as Ukraine's European advocates and their own positions in the EU, the point of view to defend is: European integration is by its essence a great chance for Ukraine to make 'a giant leap' from its today to its future. In this context, new and different approach to the discussion of Ukrainian accession to the EU, as well as possible EU membership of other former socialist European states, will be found. Thus, the question of whether the new EU Neighbourhood Policy is expected to be followed by another 'lot-of-promising-but-giving-no-accession' unique policy program, will get new respondents. Key words: region, regional policy, regional development, European Union, the Baltic-Black Sea region, strategies.

#### Gateway G

### HISTORICAL TRANSFORMATIONS OF ROLES OF SMALL TOWNS UNDER CHINESE REGIONAL CONTEXT: PART I -- PERIODISATION OF SMALL TOWNS IN THE YANGTZE DELTA REGION

### Jun Ying, Delft University of Technology, NETHERLANDS

In this century, regionalisation becomes the main scientific and political focus of urbanisation and economic development in China. It assumes to be bound with the development of big cities, dropping small towns from its vision. As the majority of regional territory where most people reside, the idea of their roles under current regional development has hardly been developed. Besides, previous studies on towns in last century in China mainly centred on their socialism institutional environment, as an attempt of understanding Chinese urbanisation in its own term. Little has been done with specific attention on the overview of transitions of their roles in relation to the changes of regional structure across time. The idea of roles of current small towns embedded in their territorial and historical contexts, other significant endogenous factors, needs our attention and to be brought up to date. Therefore, this paper attempts to synthesize and interpret pertinent literature to get an

overview of the transition process of small towns in the Yangtze Delta Region, to arrive at a big picture of the historical trajectories of small towns in regional background and link it to what is taking place now. It aims to get a better understanding of transitions of roles of small towns with the changes of regional structure, specifically focusing on driving forces and endogenous capabilities. By periodising the history of small towns into five stages, the paper presents general transitions of regional structure and concomitant changes of roles of small towns as an interaction between political and economic systems in the whole country. The paper uses related town-region theories respectively on economic and political perspectives as conceptual tools for depicting the transitions of small towns in general. Then it zooms into the Yangtze Delta Region to see its own development rhythm and regional structure, centring on town-region relations. It not only provides an alternative of possible beginning steps of exploring the theory of Chinese regional planning on its own term, but also offers hints and historical lessons for future planning practices. The paper appears in two separate installments. In this first part, attention is focused on small towns in the periods before 1949. It first illuminates the formation of the Yangtze Delta Region, the emergence and development of small towns in the middle and late imperial China. Then it illustrates how this regional structure was reused and restructured under the western influences and the changes of roles of small towns. The various aspects of changes under socialist regime are reserved for treatment in the second part.

### Gateway G THE SYSTEM OF CITIES AND CITY INTERACTION PROSPECTS IN LATVIA

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The practice of European countries shows that joint action of cities is an effective tool for stimulating the economic development of a territory. By pinpointing several functional development centres Latvia has set polycentric development as the priority of its regional policy. However, due to this the major human and capital flows concentrate in just a few centres while small and mid-sized towns remain empty. To test this hypothesis the authors are studying 76 towns and cities in Latvia, which are standardised according to the area, population, business specialisation, distance from the development centres and availability of infrastructure. By applying the methods of regression analysis and cluster analysis the areas of influence of the largest centres and the prospects of interaction of the small and medium towns are studied. In this way it is possible to characterise the centreperiphery relations among cities, which dominate the system of Latvian cities and find whether there are any prospects for the development of a network of economic interaction between the small and mid-sized towns. When studying economic development indicators of cities and towns in relation to their distance from the capital, it was established that the farther they are from the capital the lower their economic indicators are, and already at 70 km away from the capital they show negative values. Latvian cities and towns (with the exception of the capital) can be classified into three clusters by their area, population and business specialisation; the first cluster includes regional centres (8 cities), the second includes district centres (18), while the third cluster includes 49 small towns acting as local centres. Irrespective of the distance to large centres, on average 86 % of economic activity in towns is focused on local consumers - these are essential services for local people and small trading companies. Regions also have several groups of closely-located small towns with the same branches of industry. The existing producers compete with each other instead of joining and expanding production. When studying public transportation flows between larger and smaller cities and towns, there is a clear trend of people commuting from the smaller towns to cities in the mornings and evenings, when people travel to work in larger centres. Only three years ago Latvian regional policy started moving towards development of polycentric regions - before that there was a markedly monocentric system of cities with the capital at the top of the city hierarchy. In such a situation, measures aimed at promoting polycentric development are necessary; however, it is difficult to predict the time necessary for these cities to achieve a level of development which significantly influences the small towns in the surrounding territories. Due to the fact that most economies of cities and towns are focused only on the local market, their growth possibilities in such circumstances are limited. These possibilities are even smaller for the smallest towns from which people travel to work in larger centres. Generally, in this situation, balanced development becomes difficult across the entire country. The existing situation could be improved by commencing cooperation among cities and towns, however, this trend is only rarely observed in Latvia. Mutual cooperation takes place only between individual municipalities in the field of provision of public services; however, taking into consideration the relatively dense network of small towns in the country, this solution has high potential, and it could become a cornerstone in the development strategy of smaller towns.

#### Gateway N

# THE HIGH-SPEED RAILWAY NETWORK IN CHINA'S YANGTZE RIVER DELTA: AN ANALYSIS OF THE ACCESSIBILITY IMPACT

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Historically, changes in transport infrastructures have produced a progressive contraction of space, in the sense that travel times have been shortened and transport costs reduced. Improvement of transportation networks reduces interaction costs, increases the overall competitiveness of the system and allows for more specialization such that economies of scale and specialization benefits can be utilized. Hence, we should expect that production and other economic activities can be carried out more efficiently as the quality and capacity of a region's transportation networks increase (Forslund and Johansson, 1995). High-speed railway is the most visible form of new technology accompanying and enhancing the transformation to an information-based economy, and is likely to have the greatest spatial development effects of any of these technologies (Brian D. Sands, 1993). The development of High-Speed Railway has been one of the central features of recent China's transport infrastructure policy. From the initial Beijing-Tianjin inter-city railway to the recent Beijing-Shanghai high-speed railway, the High-Speed Railway Age of China is coming. Based on the mid-long term railway network plan (2008), the High-Speed Railway mileage of China is expected to be more than 18 thousand kilometers in 2020, which will constitute more than half of the world's High-Speed Railway mileage, formatting a network structure of 4 length lines and 4 breadth lines. Since the reform and open policy, the Yangtze River Delta area has grown into an area with the highest level of economic development and overall economic strength in China and it is also the area enjoying the most intensive High-speed Railway networks. This paper evaluates the accessibility impact of the future High-Speed Railway in Yangtze River Delta, by reducing time distance between places and modifying their relative location. We compare the current situation with that foreseen for the year 2020, according to the Outline Plan of the China; s High-Speed Railway Network, in order to analyze whether the cities will benefit from construction and improvement of the infrastructure and how spatial pattern changes of Yangtze River Delta's accessibility under the impact of High-Speed Railway. It concludes that the High-Speed Railway will certainly enhance accessibility within Yangtze River Delta area, greatly shorten temporal and spatial distance between cities and promote the integrated development of the Yangtze River Delta. The traditional pattern of regional governance will face a new challenge. On the other hand, the High-Speed Railway will also increase imbalances between the other main cities and their hinterlands because it differently affects the accessibilities of different areas. There is evidence of increasing concentration into the main metropolitan centers served by the emerging network. So, different cities should seek their own development strategies according to their different characteristics under the High-Speed Railway Age. Accessibility denotes the ease with which activities may be reached from a given location using a particular transportation system. A weighted average travel time indicator is applied for regional accessibility calculation. This measure identifies the spatial distribution of accessibility in the area of study, emphasizing the high-speed railway effects, and locates accessibility changes at the regional level. A geographic information system (GIS) was used to carry out this study.

### Gateway L

### COMPARATIVE URBAN GOVERNANCE OF CREATIVE SPACES IN CHINA

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Since the promulgation of the "Scientific Outlook on Development" in 2003, China has increased its efforts towards a knowledge- and innovation-based economy. Against the background of this "Second Transition", newly-erected creative spaces have become important urban symbols for the shift from "Made in China" to "Created in China". Beijing 798 and Shanghai's M50 are the most prominent pioneers of this trend and often-copied role models for other cities. In those areas, artists, designers, and media companies are clustered in renovated lofts on derelict manufacturing sites. Fashionable bars and restaurants have been opened there for the emerging urban middle class and tourists. This paper analyses both governance and guanxi-networks that have determined the development policy over time of select creative spaces. In doing so, we understand governance theory as an analytical concept rather than as the expression of a supposed globally changed reality. This approach appears to be useful for the research as it focuses on the structural, personal, and intra-personal forces that influence the process of policy-making. Our research is based on recent empirical case studies of Beijing 798 and Shanghai M50 as pioneers, as well as Shenzhen OCT Loft and Guangzhou 1850 Creativity Zone, Taigu

Warehouse, and Xinyi International Club as latecomers. For example, it will be shown that whereas Beijing 798 and Shanghai M50 can be described as archetypes of informal bottom-up clusters - eventually leading to the gentrification of entire districts - the areas observed in Shenzhen and Guangzhou are completely devoid of any initial period of informal grassroots occupancy by local pioneers. Instead, we will demonstrate that the development of creative spaces in Pearl River Delta is predominantly government-led. We analyse and compare the top-down approaches implemented from the very beginning, usually building on close networks with powerful real estate developers. Consequently, it will be maintained that the development of creative spaces shows that state-led market capitalism in China remains in firm control of strategic land development issues. Finally, we will show that although the real economic contribution of creative spaces to the local economy is still doubtful - and that "creative" often serves merely as a marketing tool for real estate developers selling high-end apartments that are in no way affordable for local artists - these areas serve as essential urban reference areas of the local political elites: For them, creative spaces not only stand for the erection of a highquality living, working, and leisure environment but contribute to the public image of a liveable city that is attractive for the local and global creative class. In a wider sense, the development of creative spaces stands for the implementation of the "Second Transition" as well as the overall shift towards a knowledge-based economy. although it remains to be seen whether creativity can really be promoted under conditions of such tight topdown development control.

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