New Horizons for Cities and Regions in a Changing World

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INDUSTRY 4.0 AS AN ALTERNATIVE OF COMPETITIVENESS OF THE MAIN CLUSTERS OF WESTERN PARANA STATE, BRAZIL

Lucir Reinaldo Alves, Universidade Estadual do Oeste do Paraná - UNIOESTE/Campus Toledo, Brazil
Isabela Romanha de Alcantara, UNIOESTE/Campus Toledo, Brazil
Alina Bianca Andreica, Faculty of Studii Europene, Babes-Bolyai University, Romania

The objective of this paper is to identify the main characteristics of production model industry 4.0 and the main productive clusters of Western Parana State, Brazil. The Industry 4.0 is a German concept that arose in 2011 as a part of the strategy of high technological development in the manufacturing of the country and it quickly spread throughout the world. Some of the main characteristics of this model of production are the use of Internet of Things platforms, mobile devices, location detection technologies and smart sensors, big data, augmented reality, cloud computing, cybersecurity and others. The results of this innovation are digitization and integration of vertical and horizontal value chains, digitisation of product and service offerings and digital business models and customers access. We used as methodology the LQ (Locational Quotient) to identify the main productive clusters of Western Parana State, using the number of formal employment as data source and the State of Parana as reference region. Thus, agriculture, livestock farming and food industry are the sectors which presented the highest number of productive clusters when analysing the fifty municipalities of Western Parana, indicating that the region has a high potential of specialization and productive chains in these sectors. We also present a case study on the new media tools used by some representative farms in the region. We conclude that the efforts and investments in implementing automation in the agriculture and livestock farming can strongly contribute to the regional development of the Western Parana State.

IDEALISM AND RESISTANCE IN SPATIAL PLANNING: QUESTIONING THE NEW HORIZONS OF PLANNING EDUCATION

Lauren Andres, University of Birmingham, United Kingdom
Phil Jones, University of Birmingham, United Kingdom
Lorena Melgaço, University of Birmingham, United Kingdom
Stuart Denoon-Stevens, University of the Free State, South Africa

Many students are inspired to pursue careers in urban planning to help shape a more sustainable and just future. Planning education reflects this noble ideal, with curricula balancing practical skills, theory and critical thinking. Within the neoliberal political context both in the Global North and South, the reality of the planning profession is, however, one of mediation, compromise and pragmatism; the ideals of planning theory often seem impossibly distant to practitioners on the ground. Planners thus have a somewhat paradoxical position, often imbued with the power of the state or capitalist businesses, but also serving multiple agendas that do not always align with understandings of ‘good’ planning.

This paper draws on a 30-month ESRC/NRF project which undertook the first large-scale study of South African planning practitioners reflecting on how their planning education shaped their professional career (219 survey responses and 110 qualitative interviews). The South African experience, which sits between that of the Global North and South, provides lessons for the sector internationally around how planning education prepares students for professional practice. Building upon the work of De Certeau, this paper argues that planning educators need to challenge presenting ideas of ideal planning as means to tactically resist the messy realities of planning practice. Instead, planning educators need to show students how to engage with different types of strategic power in order to deliver the public good.
HOW CAN CITY LEADERS PROMOTE PUBLIC VALUE THROUGH SOFT METAGOVERNANCE?
Sarah Ayres, University of Bristol, United Kingdom

The aim of this paper is to explore the opportunities and challenges of employing ‘soft’ metagovernance to promote public value in governance networks. Soft metagovernance can be defined as a form of relational leadership that is exercised through face-to-face contact. This involves making an emotional connection with people to exert influence through a collaborative endeavor, rather than employing bureaucratic authority. Drawing on a case study of a local social enterprise - The Bristol Pound - in the UK, this article examines how soft metagovernance can be used by non-state actors as a form of leadership to create public value at city level. Evidence reveals that relational forms of leadership are a powerful asset in helping city leaders to create public value. Moreover, if leaders understand how soft metagovernance functions they can use it more purposefully to maximize public value creation and mitigate the risks of public value destruction in governance networks.

BEYOND ‘INDUSTRY 4.0’? IMPLICATIONS FOR INDUSTRIAL POLICY
David Bailey, Aston University, United Kingdom
Lisa De Propris, Birmingham Business School, United Kingdom

A host of new technologies are driving the current, fourth industrial revolution. The ripening of a range of new innovations that started in the mid-1980s is driving a wave of change in the ‘techno-economic paradigm’ with its impact on production methods. These include biotech, nanotech, neurotechnologies, green and renewables, ICT & mobile tech, 3D, AI, robotics, sensing and space technology and drones. Captured by a business-focused narrative, the term ‘Industry 4.0’ has been celebrated for the impact it was expected to have inside the factory. The ‘Internet of Things’, artificial intelligence, robotics and automation have all been argued to bring efficiency, productivity, responsiveness, and flexibility and ultimately seamless integration of the supply chain in manufacturing production. Yet the term ‘Industry 4.0’ term was coined in Germany in 2011, when the Federal Government launch an industrial policy project on industry-science partnerships called Industrie4.0. This explored the impact that the Internet of Things was going to have on the organisation of production thanks a new interplay between humans and machines and a new wave of digital application to manufacturing production. The German government subsequently made Industrie4.0 its technology strategy to be delivered through a concerted effort of key national stakeholders including industry associations and Fraunhofer Institutes.

In this regard, Industrie 4.0 can be viewed as a deliberate strategy to enable German manufacturing firms to maintain high productivity levels in its factories, to continue to export mechanical engineering and automotive products, as well as to build capabilities to export the same ‘efficient factory model’ underpinning Germany’s manufacturing competitive advantage. A number of policy initiatives emerged in Germany from this such as the Industrie 4.0 Platform and SmartFactory, which in turn triggered interest amongst manufacturing business leaders worldwide and the policy community. A nascent academic debate has followed.

This paper aims to push this debate further and has three main aims. One is to unpack what wide-ranging disruptions the fourth industrial revolution may bring and its implications for firms, industries, labour, and consumers in Europe. Secondly, this is used to shed light on the appropriate levels of governance and dimensions of industrial policy required to support EU economies so as to fully benefit from the technological changes underway. Thirdly, the paper surveys how different countries in Europe have launched industry policy agendas that are promoting advanced manufacturing (sometimes also called industry 4.0) and to ascertain what opportunities these are seizing and what
elements are missing in policy development. In so doing the paper aims to contribute to debates on how industrial policy needs to both adapt to and help shape the fourth industrial revolution for wider economic benefit.

### PLANNED TOURISTIFICATION: WATERFRONT AREAS DEVELOPMENT IN THE CITY OF GDANSK

Katarzyna Baranczuk, University of Gdansk, Klaudia Nowicka, University of Gdansk, Poland

Nowadays, waterfront development is a vital issue for many Polish cities and their authorities, that after many years have finally started implementing policies and strategies to manage those usually neglected areas. The local authorities of the city of Gdansk have decided to manage the waterfront through the development of the real estate market. New housing projects have been implemented since 2009 in the strict city center, especially on Granary Island and in its closest vicinity and although some positive processes have been triggered, there is also a dark side of such a strategy. The island has changed a lot, expensive and luxury apartments are now for sale and the whole neighborhood is now perceived prestigious. Prestigious and empty as the apartments as so expensive that no ordinary citizen can afford them. As a result, the apartments are usually bought by wealthy people or companies and then rented to tourists mainly in the summertime. There have been also some projects aimed at constructing aparthotels. Undoubtedly, tourism is an industry contributing to urban and economic development yet the process of touristification in Gdansk, which is more and more visible, has become a major problem rising many questions and doubts among the citizens and shall be tackled soon. The question is: how? Time is passing and we can no longer be certain that the genius loci of the old Hanseatic city will survive the future waves of mass tourism.

### SOCIAL ARCHITECTURE: COLLABORATIVE PRACTICE AS A TOOL TO PROMOTE LOCAL DEVELOPMENT AND RESPONSIBILITY

Jussara Bauermann, PUC Campinas, Brazil  
Jane Victal Ferreira, PUC Campinas, Brazil

The profound economic, technological, political and social changes presents great uncertainties. The current scenario demands a responsive approach to present and future needs. Even though there are major technological advancements, many communities still lack the basics for survival. Will future generations be able to address the disruptions that widen social inequalities in local and regional contexts? Taking this question as a starting point, social architecture has much to offer. Academic activities involving real problems in disadvantaged regional contexts can promote a generation of consciously more responsive architects. This article reports a experiment involving undergraduate students and professors of Architecture and Urbanism from UNASP-EC in partnership with various institutions (universities and NGOs). The activity involved the construction of a technical school in a riverside community in the state of Amazonas, Brazil. In this context, architectural students have advanced beyond theory and practice that they currently have in studio classes. The experience involved collaborative, interdisciplinary and transformative work. In an attempt to fill in the gaps between education, practice, and society, the activity contributed to developing the social skills and responsibilities that an architect must have. By working in regional development, the architect is able to bridge the disparities between people and places. The article presents the design process, the partnerships and the construction feasibility of building in the riverside community of Massauari, Amazonas, Brazil.
Within the UK and as well as further afield, the concept of localism and spatial delineation of the ‘city-region’ have seen a renaissance as the de-facto spatial political units of governance for economic development. In the UK this has been led by the UK Government, as they have sought to reshape the ways in which economic development takes place and although this shift in governmental delivery began under New Labour. It has been much vaunted by the UK Coalition Government, subsequently by the continuing Conservative administration. Post-the-Brexit vote and a new Conservative Administration, this strategy is somewhat in question uncertain future, but existing city and devolution deals seem to be holding. This mirrors policy landscape taking shape in Wales, with two Welsh city-regions identified (Cardiff and Swansea). The paper, therefore, follows the development of city-regionalism in Wales through the unfolding of the ‘elite-led’ Cardiff Capital Region city-deal. This allows the authors to ask, within a language of localism and devolution: how does this position different governance institutions in Wales? How does this recast scalar relations between such institutions and how does this (re)position civil society with its focus upon social development.

Big Data, New Technologies and Advancing Urban and Regional Development Strategies

The measurement of the impact of economic development activities is critical to the practice of urban and regional development as the capacity to document the impact of programs and policies both guides continuous improvement and assists in securing resources to further growth. Economic development activities have many stakeholders, interested to learn from others and there is a pressing need to develop robust metrics for economic development programs and activities. These measures are needed in order to:

• Justify the expenditure of scarce public sector resources;
• Provide an evidence base on progress towards economic development goals;
• Assist economic development practitioners select the most appropriate and effective strategies; and,
• Build momentum in economic development efforts by creating knowledge of local success that can be shared with businesses, the community and others.

Until this point in time measuring the success of economic development activities has been challenging because of the difficulty – and high cost – associated with using conventional methods to assemble meaningful measures that reflect economic development outcomes. Output measures are readily assembled, but outcome measures – that speak directly to the impact of economic development efforts – are often difficult to develop and implement (Turok 1999; Beer et al 2003). Contemporary approaches to economic development measurement suffer from a number of shortcomings. First, official data is often only available irregularly, or at time periods that do not match needs. Second, the scale of the data analysis is often challenging as key data may only be available at a very broad scale, and this may reflect privacy concerns or the limitations of the data collection process. Third, privately collected data sets are expensive. Primary data collection is one solution, but
as Turok (1989) pointed out, attribution is an unavoidable problem: businesses often benefit from economic development actions but either overlook who provided that assistance, or are unaware of the boost they received.

This paper evaluates new technologies and data sources that can shed light on the additional value created by economic development programs and activities, and programs and activities which have economic development outcomes. It looks beyond traditional data to relevant data sources that are increasingly becoming available globally, nationally and locally. Often referred to as ‘big data’—these alternative information sources reflect the new reality of a digital life, and can include data from mobile phones, social media, on-line booking websites and applications and smart sensors installed by governments or the private sector. The paper reports on the findings of research into the capacity of these new types of information to provide better tools for researchers and practitioners alike.

POWER UP OR POWER DOWN? THE ROLE OF LEPS IN DELIVERING GOVERNANCE OF SUB-NATIONAL ECONOMIC DEVELOPMENT AND POLICY IN THE UK IN A POST BREXIT WORLD

Gill Bentley, University of Birmingham, United Kingdom
John Shutt, Northumbria University, United Kingdom

Following the general election of 2017, the UK underwent yet other round of rearticulation and reconstitution of scales and forms of state activity. New sub-national meso-scale agencies had been formed: The Northern Powerhouse and the Midlands Engine; joined recently by the Western Powerhouse and the Cambridge-Milton Keynes-Oxford Corridor. These sit between centre and local administrations, to add to the LEPS and the Combined Authorities, some exhibiting a Mayoral model of governance, acceptable in some authorities and opposed in others. Given this asymmetrical pattern of governance, it seemed that at least the establishment of the meso-scale institutions presaged the emergence of autonomous governance structures, to reflect the idea that there exists a functional economic geography that requires economic management and that power to do so was being devolved to this sub-national scale. In November 2017, the government published an Industrial Strategy which aims at and at raising productivity levels and rebalancing the UK economy on the pathway to a post Brexit era of repatriated Structural Funds. Subsequently, in July 2018, the publication of ‘Strengthened Local Enterprise Partnerships’ saw government proposing reforms to the leadership, governance and accountability in charging the 38 LEPs with securing job creation and economic growth in their regions. The questions arise: where now does the power lie? To what extent is central government really committed to devolution? Through the lens of a place-based approach to economic development, we contend that this does not represent a re-territorialisation of policymaking but is delegation of the administration of national policy to the sub-national scale and, that this represents the difficulty of the organising governance of complex geographies of production and consumption.

HOUSING STOCK MAINTENANCE AND BUILDING LAND DESIGNATION – RESULTS OF A QUANTITATIVE AND QUALITATIVE SURVEYS OF GERMAN MUNICIPALITIES

Andrea Berndgen-Kaiser, ILS - Research Institute for Regional and Urban Development, Germany

The research project “Homes uP – Single Family Homes under Pressure?” was funded by the "Leibniz Competition". It was carried out by 5 research institutes - institutes of spatial, social and economic sciences under the leadership of IÖR (Leibniz Institute of Ecological Urban and Regional Development). Within this research project the ILS (Research Institute for Regional and Urban Development) conducted a German-wide survey of municipalities. All German municipalities with more than 10,000 inhabitants – 1,550 questionnaires sent - were asked about their handling of the single-family housing
stock, topics such as demographic change, building land strategies and measures for dealing with shrinkage against the background of partially declining populations. The results of the survey were opposed to official statistics and were verified by the results of case study investigations. As part of the case study investigations the researchers of ILS and IÖR carried out structured interviews with municipal experts like mayors and official heads of planning offices of 28 case study municipalities. The main results are that building land designation is carried out everywhere despite partially declining populations and declining demand. Depending on the location, sellers of single-family houses have to accept high price discounts when selling. Vacancies in single-family housing areas have been hardly observed so far, but are largely concealed by "inner vacancies ".

INTEGRATED TERRITORIAL INVESTMENTS IN POLAND: EMPOWERING LOCAL ACTORS IN THE EU COHESION POLICY
Sylwia Borkowska-Waszak, European Policies Research Centre, University of Strathclyde, Poland

This paper provides empirical insights into debates on the future of EU policies. In particular, it analyses the application of place-based approach in EU Cohesion Policy (CP). It focuses on Integrated Territorial Investments (ITI), a policy instrument introduced under CP for the period 2014-2020. Evaluations of the policy have repeatedly noted how the strategic objectives of the policy have been undermined by competition and rivalry for funding, particularly at the local level where short-term political gains supersede longer-term strategic aims that are set out in programme documents to be implemented by programme authorities (Ferry, 2015; Kozak, 2016). The purpose of the research is to explore the interactions between actors in the process of ITI implementation in the metropolitan area. The main theoretical background is the Institutional Collective Action (ICA) Framework (Feiock, 2013). The research takes the case of ITI implementation in two Polish metropolitan areas located in different regions: The Lublin Functional Urban Area, and the Central Subregion of the Silesia Voivodship. Data collection included 3 months of participatory observation, 45 expert interviews and policy documents. Data analysis consisted of systematic, qualitative content analysis. The paper aims to contribute to the theoretical basis and methodological approaches to research on ITI. Exploring the metropolitan governance at the micro-level provides concrete insights into the relations between actors involved in the process. Assessing the empirical application of place-based approach in the Central-Eastern European context can inform the current debates on future EU policies.

FOSTERING THE GROWTH OF STUDENT START-UPS FROM UNIVERSITY ACCELERATORS: AN ENTREPRENEURIAL ECOSYSTEM PERSPECTIVE
Shiri Breznitz, The Munk School of Global Affairs, Canada
Qiantao Zhang, University of Toronto, Canada

The literature on university entrepreneurship widely recognize its importance but to date has little evidence on student start-ups. In particular, university accelerators have become a prevalent phenomenon worldwide, with more and more universities establishing such organizations to support student entrepreneurship (Wright et al., 2017). Given the increasing significance of student firms and university accelerators, this paper investigates the case of the U of T and aims to contribute to an understanding of how universities can better support the entrepreneurial efforts of students. Results find that firms which spend time in accelerators have a much better chance of experiencing growth, in particular, product growth.
WAGES OF FOREIGN AND NATIVE EMPLOYEES IN GERMANY: NEW LIGHT ON AN OLD ISSUE
Stephan Brunow, University of Applied Labour Studies, Germany
Oskar Jost, Institute for Employment Research IAB, Germany

This paper puts new light on the wage structure of natives and foreigners working in Germany. We are especially interested in the wage gap between both groups. What can we explain by observable, individual, firm and job characteristics? A general problem of such analyses is the chosen reference or comparison group; in our case the group of Germans. We overcome that problem by choosing a reference group that is potentially unbiased - neither discriminated nor preferred: German employees who work in firms that solely employ Germans. First evidence shows that the majority of the wage gap can be explained by observed factors leading to a negligible residual or “discrimination” from an economic point of view. This result, again, is robust when choosing the traditional reference group: Germans employees in mixed firms – firms who employ Germans and foreigners.

PLANNING FOR REGIONAL FUTURES IN THE GLOBAL SOUTH: SHIFTING SILOED APPROACH TO PLACE-BASED INTEGRATED PLANNING IN AFRICA
John Bryson, University of Birmingham, United Kingdom
Lauren Andres, University of Birmingham, United Kingdom
Hakeem Bakare, University of Birmingham, United Kingdom

This paper proposes to shift approaches to planning regional futures in the Global South focusing specifically on Africa. It argues that planning needs to be embedded within a more complex and systemic framework of regional understanding of city-region functions and transformations, at both local and regional levels, whilst also advocating for and incorporating informal and temporary dynamics. This methodological and conceptual shift rests upon the acknowledgment that planning often remains an under-resourced activity in the Global South despite having a decisive role in determining urban and regional futures. Hence, the importance of developing new ways of thinking to tackle local, regional and national challenges enhancing sustainable local development. To do so, it builds upon three research projects. First, the Urban Living Birmingham (ULB) pilot project that was funded as part of the RC-UK Urban Living Partnership Pilot. Second, the DIFD funded Systems Approach to Air Pollution in East Africa (ASAP) that is applying conceptual approaches to planning city-regions developed in the ULB project to three rapidly developing East African cities – Nairobi, Kampala and Addis Ababa. Third, the SAPER project, an ESRC/NRF funded project that is exploring the nature and appropriateness of planning education in South Africa in line with the key issues urban planners are experiencing in their daily activity.

This paper explores the constraints faced by current planning practices in highly challenging urban environments. The primary problem is to highlight how existing approaches need to be transformed to meet local needs with a focus on the development of integrated and inclusive place-based approaches.

CHALLENGES OF REGIONAL STRATEGIZING IN RUSSIA
Ksenia Budaeva, Institute for Public Finance Reform, Russia

Starting from 2000s, the system of regional governance in Russia is transformed under the innovations of the theory of new public management. Since 2014, there is a process of implementation of the Federal Law on strategic planning.
Our research reflects the current situation and trends in the field of strategizing in Russia. We analyzed regional strategies for their content related to regional development. At the present stage, strategic planning in Russia is still based on the experience of Soviet planning and has a number of features related to the legislative framework, a federal system with the prevailing control of the federal government, and high turbulence of the Russian economy. In spite of this, the analysis indicates a positive progressive development of strategizing in the contemporary Russia. Over the past decade, quality of regional strategies has increased. In the majority of documents, the most of scientific and practical trends of regional development is taken into account.

At the same time, strategy must include an assessment of financial resources necessary for its implementation. Currently, strategies of Russia’s regions are not mostly supported by specific sources of funding. The lack of proper assessment of financial and other resources leads to ineffective implementation of documents and inefficient interrelation between strategies and budgetary planning.

The problem of correlation between strategies and other documents in their implementation, mission and role in development and inclusive growth is one of the main challenges of strategic planning in Russia on regional level.

**CAN THE SPACE ECONOMY TRANSFORM EUROPE’S REGIONS?**

Leslie Budd, Open University, United Kingdom
Stefania Paladini, Birmingham City University, United Kingdom

There appears to be two dominant discourse currently shaping the regional policy environment in Europe: smart specialisation (with links to smart cities) and Brexit. In the former case, it arose out of the European Commission’s Innovation Union promoted to achieve its goals of ‘smart, sustainable and inclusive growth’. In one sense, smart specialisation is a strategic heuristic in which regional innovation policy is combined the entrepreneurial discovery process in order to realise the unique advantages of each region. The logic of this approach for regions to effectively pursue absolute advantage through reframing economic development projects as being ones that conform to the discourse of smart specialisation. There is also underlying logic in that projects that stem from this kind of innovation policy attract EU funding even if they are place-based.

Brexit could be described as ‘a riddle, wrapped in a mystery, inside an enigma’ to use Churchiill’s description of Russia. From outside the UK, any analysis may seem like intruding into the private grief of the Conservative Party. The potential damage extends into other neighbouring EU regions, however, disrupting global value and supply chains in key sectors. Consequently place-based development within a smart specialization framework could be undermined. What has tended to be overlooked is how the trajectory of the European space economy links the two discourses and may go some way to enhancing cohesion in more peripheral economies.

The European Space Agency (ESA) has recently commissioned research in the downstream impact of its space programmes and missions on socio-economic benefits. These benefits include the application and dissemination of space technologies and innovation. In the case of the Copernicus project, a European version of the US Global Positioning System (GPS), there are a large number of beneficial projects concerning land, maritime, atmosphere, climate, emergency management activities, in many European regions all of which could be badged as smart specialist.

The brouhaha over Brexit has thrown up the role of the UK in the Galileo system, used in civil and military navigation, that complements global systems based in other supra-national regions. The
implications of this threat are the impact on key related sectors (especially aerospace and automotive) whose place distribution is a crucial element of regional and innovation policy in the EU. This paper explores these twin discourses to exemplify how the European space economy can contribute to transforming Europe’s regions, in order to address the challenges that they create.

SPATIAL DIFFERENCES OF ECONOMIC WELLBEING IN LITHUANIA. ARE PERIPHERAL REGIONS ALWAYS LOSERS?  
Donatas Burneika, Lithuanian Social Research Centre, Lithuania  
Rūta Ubarevičienė, Lithuanian Social Research Centre, Lithuania  

Since the collapse of Soviet Union, Lithuania experienced fast shrinkage of jobs mainly in industry and agriculture and this shrinkage was especially evident in peripheral places. Fast decrease of employment later resulted in mass emigration, what widely is perceived as extremely negative phenomenon, - cause rather than consequence of economic problems. The rapid downfall of jobs and high unemployment are over for a past few years but regions are still qualified as problem ones. The analysis of economic trends in labour market and earnings shows that slower development or growing spatial inequalities is not common for all non-capital regions and objective wellbeing is not substantially worse for the most population groups residing in such places. The levels of social segregation are also lower here and are not increasing as fast as in metropolitan cities. On the other hand, peripherization processes overtake country and processes of redistribution of population are making certain impact on spatial social structure of population as migrations are selective.

Multinodal urban structure of the country did not help to ensure even economic development in post-soviet era but existence of a few metropolitan centres in NUTS 2 region size country at present ensures differentiation of migration flows inside it. Notwithstanding the growing dominance of the capital city Vilnius, the country withholds multi nodal development. This research was funded by a grant (No. GER-005/2017) from the Research Council of Lithuania  Keywords: Uneven development, migrations, Lithuania, residential differentiation.

ADMINISTRATIVE ORGANISATION AND SPATIAL PLANNING IN PORTUGAL: A PUSH TOWARDS SOFT PLANNING SPACES IN EUROPE?  
Cristina Cavaco, CIAUD, Faculty of Architecture, University of Lisbon, Portugal  
João Pedro Costa, University of Lisbon, Faculty of Architecture, CIAUD, Portugal  

In the last decade, soft spaces and soft planning have emerged as new spatial planning and governance concepts, calling for a fresh approach to planning. The European Union has been partly responsible, not only by acting as a driver of soft planning, but also by encouraging the convergence and harmonisation of planning styles into a common European planning culture.

However, soft planning does not replace statutory frameworks. Planning deals with both hard (mandatory and regulatory) and soft (non-statutory and non-binding) spaces, although this coexistence is not free of contention. Deviances and mismatches give rise to a number of ambiguities, inconsistencies and contradictions.

The paper examines the meeting ground between hard and soft planning, i.e., how EU-led, soft-planning policy initiatives are accommodated and managed within statutory national planning systems. The Portuguese administrative organization and spatial planning system provide the background for the analysis, while the paper focuses on soft planning initiatives endorsed by EU Cohesion Policy, namely in the last EU programming cycle of 2014-2020.
The conclusions will point to the tensions and detachments that emerge from the coexistence of EU-led soft planning and statutory spatial planning tools, despite the increasing convergence of the Portuguese system with European spatial planning rationale.

**CAN UNIVERSITY CAMPUS IN RURAL AREAS MEET THE EXPECTATIONS OF LOCAL STAKEHOLDERS?**

David Charles, Northumbria University, United Kingdom

A university campus has become the ‘must have’ in local economic development, and many areas lacking a conventional university have sought to attract some form of satellite campus if not a whole university. At the same time governments see the need to fill in the white spaces in the map in order to meet the needs of learners as well as economic development partners. This paper examines the potential for engagement in local innovation activities of rural university campus developments and particularly the extent to which local expectations are being met.

The presumed benefits of a university campus are identified through a series of conceptualisations of university impacts as entrepreneurial or engaged universities with identified roles in regional innovation systems. This literature focuses on more urban based institutions though, and tends to neglect smaller satellite campuses in rural areas where regional innovation systems are less well developed.

The paper draws on case studies in the UK to examine both the strategies of the campuses and the expectations of local partners. Whilst these new campuses have been able to add to the regional innovation systems of rural areas, they struggle with economies of scale and scope. Where disciplinary specialisation has been pursued, potential exists for engagement with niche clusters, although a long development period is required. Where campuses have focused on broad educational equity issues, engagement with business has been difficult to achieve. Overall policies to enhance rural innovation through new university campuses must be seen to be very long-term strategies and not necessarily congruent with strategies to increase HE participation and equity of opportunity.

**THE ROLE OF STABILISATION FOR REGIONAL TRANSITIONS**

Camilla Chlebna, Carl von Ossietzky University Oldenburg, Jannika Mattes, Oldenburg University, Germany

Regional transitions are complex processes which are determined by manifold dynamics. We view regional transitions as waves of innovation and institutionalisation of ideas and processes and argue that we need to consider stabilisation to understand change.

We conceptualise the overall process as a continuous sequence of s-curves. In the ‘initiation’ phase, distributed agents engage in relatively small scale, often unconnected projects around the development of novel solutions. There is limited interaction between different actors around these novel ideas. The subsequent ‘expansion’ phase involves the adaptation of existing institutions to facilitate the novel solutions, and the scaling up of projects and adaptation amongst them to explore and exploit synergies. Next, the ‘consolidation’ phase is when routines stabilise and relations institutionalise. Activities are increasingly coordinated. Forecasting and planning facilitate longer term objectives. Finally, towards the end of this phase, previously new solutions lose their novelty appeal. They are perceived as ‘the new normal’. This opens a ‘window of opportunity’ for both new and existing forces. The transition may be driven forward and continue or it may be protracted and even reversed. In dealing with the ‘fragile new order’, agents find themselves needing to adapt their
strategies to survive. They may seek collaboration with other agents or seek integration with other sectors leading to further stabilisation and institutionalisation.

We illustrate the different phases, the manifestation of change in each and the associated dynamics based on a case study of the wind sector in the city and region of Oldenburg in Germany.

A PROCESS-CENTRIC APPROACH FOR SYSTEM-OF-SYSTEMS INTEGRATION IN SMART CITIES
Dimitra Chondrogianni, University of Patras, Greece
Stylianos Karatzas, University of Patras, Greece
Yorgos Stephanides, University of Patras, Greece

Effective integration of critical infrastructure systems and services is key for smart governance with existing and new functionalities in Smart Cities. Such integration can follow a system-of-systems (SoS) architecture, defined by a set of previously independent, single-purpose complex systems that collaborate to fulfill common global missions. The SoS brings together the processes, objectives, constraints and data structures of these systems, supporting dynamic interactions and communications across ad-hoc networks to generate added value for the city and region. This research proposes a SoS integration architecture by shifting the analysis from function-oriented to process-oriented integration, connecting systems to deliver higher efficiency/effectiveness while addressing interrelated, long-term threats to their sustainability. The methodology incorporates a safety analysis process for systematic identification of safety properties and hazard mitigation, reduction of services disruption, and increase of system safety. In the framework of the ongoing EU Digital Cities Challenge, the approach is applied to sector integration at a participating midsize border port city that is a 5G hub. The application focuses on technological change within digital-maturing sectors such as passengers/freight transport, energy, communications. To demonstrate how operationally and managerially independent systems can be integrated to act collaboratively, the cross-sectoral interrelations between a smart grid, communications and electrified transport (EVs) are analyzed towards the process-centric SoS approach. Real time KPIs monitor process performance and assess the integration implications of innovative services for smart development and increased quality of life in the city and the region.

SUSTAINING A REGIONAL SCREEN ECOSYSTEM IN A SMALL NATION: AARHUS AND THE WEST DANISH REGION
Pei Sze Chow, Aarhus University, Denmark

Since 2010 Danish screen production has enjoyed international attention with the popularity of high-quality films and TV series. Yet these emerge from a specific culture-political milieu that is concentrated in the capital, Copenhagen. Current research on Danish production is similarly Copenhagen-centric. This imbalance means that peripheral city-regions of Denmark like Aarhus have been largely neglected and underdeveloped as media production hubs. Recent developments in Danish screen policy, however, have included some emphasis on increasing the geographical diversity of production across the country. This paper presents the overview and initial findings from my ongoing research on the emerging regional screen ecosystem of Aarhus. This project has a particular focus on 1) mapping the key actors and institutions that drive and define the horizons of this ecosystem, and 2) outlining the strategies for long-term sustainability in the face of inter-regional competition. Based on interviews with screen practitioners in the region and an ethnographic study of the main regional production hub of Filmby Aarhus (FilmCity Aarhus) which is located in the Sydhavn (South Harbour) district of Aarhus, I will offer a reading of the hub’s site-specific activities and ongoing spatial reconfiguration, linking this to a larger effort to shift resources and political attention from the
capital to the regions. I argue that Filmby Aarhus’s work in establishing a regional profile that focuses on the production of ‘digital visual media’ is a specific strategy to differentiate itself from the traditional centre of screen production in Copenhagen and balance national cultural policy with regional priorities.

THE PUBLIC VALUE OF INTER-MUNICIPAL COLLABORATION AS ECONOMIC DEVELOPMENT POLICY: AN INTEGRATIVE INSTITUTIONAL PERSPECTIVE
Linda Christie, University of Glasgow, United Kingdom

Inter-municipal collaboration (IMC) as economic development policy involves local authorities, of different size and location, collaborating for policy purpose. With varying applications across Europe and the UK, horizontal IMC can be used to support economic, polycentric and collaborative governance planning as a ‘third way’ in urban policy compared to competition. Conceptual ambiguity and lack of evidence on the causal role of IMC for regional economic growth still largely remains. Given the policy context of austerity state and partnership working in UK policy, the paper presents a framework of conceptual and theoretical dimensions to explain the causal role and value of IMC as economic development policy in Scotland. The majority of network research has tended to focus on the structure and nature of actor relationships, to the neglect of how actor attributes ‘shape’ collaboration policy outcomes. Institutional insights help bridge scholarly boundaries on the causal role of ‘institutions’ in networked settings. The framework provides an integrative causal explanation of how the strength and nature of formal and informal institutional mechanisms (e.g. the disequilibrating effect of the ‘steering culture’ of large urban local authorities), have consequential impacts for economic efficiency, functional coherence and network embedding outcomes. Findings suggest IMC has some way to go in managing and shaping efficient outcomes harmoniously with national government’s economic development objectives. Addressing these concerns, it is argued that efficient institutions are key to our conceptual understanding of the causal role of horizontal IMC as an economic and politically constructed regional policy, principally their normative value for the long-run economic development performance of regions.

KEY TERMS:
- INSTITUTIONS
- REGIONAL POLICY
- ECONOMIC DEVELOPMENT
- INTER MUNICIPAL COLLABORATION
- COLLABORATIVE GOVERNANCE

THE UNEVEN GOVERNANCE OF REGIONAL ECONOMIC DEVELOPMENT IN SCOTLAND
David Clelland, University of Glasgow, United Kingdom
Andrew Cumbers, University of Glasgow, United Kingdom

The sub-national governance of economic development in the UK has, since 2010, been reconfigured towards the city-region scale and ‘place-based’ approaches that at least notionally rest on decision-making being embedded in specific local needs and resources. In the context of the UK’s asymmetric approaches to decentralisation and fiscal austerity, this raises questions about how the places that are outside or peripheral to this framework fit into this schema, and how this might lead to further divergence in the capacity to ‘do’ economic development in different places.

While developments in England over recent years - and their contradictions - have been subject to extensive research and critique, institutional arrangements in Scotland have received less attention, having at least on the surface avoided the same dramatic restructuring. These have however been
evolving in a number of potentially significant ways - with elements of centralisation, ‘localism’ and regionalisation apparent.

This paper maps the emerging geographies of economic development policy in Scotland through the lens of state rescaling and multi-scalar governance. It argues that the extension of the UK Government’s programme of City Deals to Scotland has prompted greater attention on how to accommodate other regions within this framework. Proposed Regional Economic Partnerships, non-city Growth Deals, and a new enterprise agency for the South of Scotland, can be seen as attempts to reconcile a view of city-regions as drivers of growth with a stated desire for ‘regional equity’, and as the latest developments in the ongoing search for the appropriate scales for economic development activity.

**AMENITIES BASED ECONOMIC DEVELOPMENT: THE ROLE OF PUBLIC PARK SYSTEMS IN LOCAL ECONOMIC DEVELOPMENT**

Terry Clower, School of Policy, Government and International Affairs, United States
Mark White, University of Missouri, United States
Spencer Shanholtz, University of Virginia, United States
Kevin Roth, National Recreation and Park Association, United States

Public parks and recreation facilities and activities support environmental stewardship and promote health and wellness in communities across the United States. Less appreciated are these agencies’ many contributions to economic prosperity. Park and recreation agencies employ hundreds of thousands of people while their operations and capital spending generate significant economic activity. Moreover, local parks can also shape perceptions of the community and enhance quality-of-life qualities that are increasingly important in corporate site location decisions.

This paper explores the role that quality park amenities play in 21st century regional economic development supporting a locality’s ability to attract and retain business and a talented workforce. Parks are often used to build “curb appeal” for localities and will feature prominently in images used for advertising a community. While key traditional factors such as market access and cost of doing business still matter most in site location decisions, access to workers with desired skills is rapidly becoming the coin of the economic development realm in the 21st Century. We explore several case studies that illustrate how parks can be incorporated into regional economic development planning and marketing.

**ON THE FRONT-LINE: EXPLORING THE IMPLICATIONS OF BREXIT FOR CITIZENS IN IRELAND’S BORDER REGION**

Micheal Collins, University College Dublin, Ireland
Michelle Norris, University College Dublin, Ireland

The decision of the United Kingdom to leave the European Union, Brexit, represents a major new horizon for European regional research. While this decision carries implications for economic, social and democratic policies across all of Europe, nowhere are these implications more pronounced that among those living in Ireland’s border region.

Geography and history have forged close economic and social ties between Ireland, Northern Ireland and Great Britain, which have been strengthened and extended by the open borders, trade and travel enabled by both jurisdictions’ EU membership since 1973. The process of UK withdrawal from the EU disrupts these ties and will require the introduction of alternative legal and policy arrangements and
services to facilitate continued co-operation and economic and social links between Ireland and the UK.

Although the nature of the final Brexit agreement is uncertain, and is likely to remain so until the end of a transition period following the UK’s exit from the EU which commences in 2019, the associated uncertainties are destabilising for governments, business and citizens. However, to date most of the attention of policy makers, journalists and academics has focussed on the first two of these issues and the impact of Brexit on citizens’ lives, rights and entitlements has been largely neglected. This paper endeavours to address this omission by examining the questions which Brexit raises for citizens living on the front-line of Brexit. The analysis draws on available material from agencies across Great Britain, the EU and the island of Ireland and on a series of in-depth interviews with key policy makers, officials in citizens advisory bodies and cross-border agencies.

HUMAN CAPITAL DYNAMICS. UNIVERSITIES STUDENTS AND GRADUATES GEOGRAPHICAL MOBILITY IN ITALY
Sabrina Colombo, Università degli Studi di Milano, Italy
Gabriele Ballarino, Università degli Studi di Milano, Italy
Nazareno Panichella, Università degli Studi di Milano, Italy

The paper studies the relationship between Italian universities and the territory by two flows of human capital that directly involve them: the interregional mobility of high school graduates towards universities and university graduates towards the occupation three years later Graduation. The geographic mobility of individuals, which has always been an important object of study by sociologists and demographers, is now also seen as an important factor of territorial competitiveness. When young graduates decide to move to a new city to study at university, the local economy benefits not only in the medium term, thanks to the better availability of human capital for local businesses, but also in the immediate future: the influx of students favours the development of the real estate market, the growth of specific business activities (i.e. bookstores, copysteries), and not (i.e. bars, restaurants), and more generally contributes to making the city more lively and animated, with positive indirect consequences also for its tourist and economic attractiveness (the so called amenities). At the end of their studies, however, young people do not move if, where they attended the university, jobs fitting their expectations are available. The choice to move is not only dependent on the cyclical state of the local labour market: the real estate market or the availability of social and cultural youth networks can make a difference, and we also took into account the relationship between two forms of geographic mobility: those who have already moved to go to university will move more easily a second time.

MIGRATION AND INTEGRATION AS SOUTH AFRICA’S REGIONAL CHALLENGES
Robert Compton, SUNY Oneonta, United States

The episodic and worldwide conflagration of xenophobia and their tragic effect on people impact migration and regionalism in most parts of the world. South Africa and the Southern African region is no exception. South Africa’s complex economy reflects the characteristics of both developing and developed conditions and thereby creates a unique set of issues. Harmonizing domestic and foreign policies to optimize internal development and orderly regional migration systems remain difficult.

Despite major domestic popular (South African) opposition to immigration and migrant workers, the country faces a major skills shortage affecting service delivery and economic growth. At the same time, as a regional leader, South Africa’s foreign policy seeks to harmonize its own foreign policy in regards to migration and regional integration through its bilateral and regional negotiations and
policies with its domestic policies. To what extent is there a harmonization of domestic and foreign policies that promote optimal regional integration and migration management?

This paper examines the historical and existential South African context of policy formulation and implementation frameworks (e.g., RDP; GEAR; and the National Development Plan 2030) to ascertain and explore contradictions, and competing policy goals that affect orderly migration into the country and regional cooperation. Furthermore, the paper seeks to examine the extent to which there is a congruence or divergence between the domestic policy goals concerning economic development and service delivery and the regional foreign policy objective of integration within the Southern African Development Community (SADC) framework.

**Challenges for Regional Policy in the Age of Globalising Technologies: Reflections of a Policy Maker**
Dimitri Corpakis, former European Commission, Belgium

The advent of the knowledge-based economy that introduced recently the fourth industrial revolution (IT, artificial intelligence, big data, analytics and robotics in industrial processes) has been a game changer for economic development at national and regional level. As products and processes are conceived and developed in many different places, regional (sub-national) economic growth becomes increasingly dependent on global value chains (GVC). Traditional theories on regional development are being increasingly challenged as new globalising technologies and their deployment become critical factors for economic growth, often escaping control by national or regional governments. Investment in these technologies emerges thus as a critical factor for regional development prompting the question of strategic choices for government planners.

The recent adoption of Smart Specialisation Strategies as an ex-ante Conditionality for innovation support by the EU’s Cohesion Policy instruments (European Structural and Investment Funds) has led national and regional governments in the EU to make difficult investment choices for which they were not always well prepared. Furthermore, it remains to be seen whether the choices made would lead to the desired effects. The question then is under which conditions regional policy could be successfully supported by technological development. Adoption and local adaptation of General Purpose Technologies may lead to economic growth provided a proper connection and linkages are made to existing or emerging Global Value Chains. This process can be supported by successful Smart Specialisation Strategies but policy makers need also to fully understand the limitations of such an approach.

**Regional Design: A Tool to Address the Tensions Between the EU-led Soft Planning and the Statutory Spatial Planning? The Lisbon Metropolitan Area Case**
João Pedro Costa, CIAUD, Faculty of Architecture, University of Lisbon, Portugal
Cristina Cavaco, CIAUD, Faculty of Architecture, University of Lisbon, Portugal

The paper starts by evidencing the tensions that emerge from the coexistence of EU-led soft planning and statutory spatial planning tools. It observes that, although different approaches occur though time, statutory planning ended up always by not being the key strategic element to support the main metropolitan investment decisions.

In the present day, in a time of uncertainty; of territorial and governance rescaling; and, in the Portuguese context, when regional planning is becoming regional programming; there is a strong need for a tool of synthesis, that can combine statutory and soft planning approaches in a coordinated
vision for the territory, as well as engage community and planning actors in the assumption of plausible territorial orientations.

The author’s just started a research project (2018-2021) advancing the hypothesis that Regional Design can fulfill this objective and be developed as a tool in the contemporary regional planning and programming, both due to its synthesis characteristics and capacity of communicate spatial ideas. This hypothesis tries to find support in diverse literature (Balz, Zonneveld, Nadin; Kempenaar, van den Brink) and concepts (Design Thinking).

EUROPEAN SPATIAL STRATEGIES AND CHINESE GEOPOLITICAL INITIATIVES. THE POTENTIAL SPATIAL IMPACTS OF CHINESE ECONOMIC INTERVENTION IN THE BALKAN PENINSULA

Giancarlo Cotella, Politecnico di Torino, Italy
Erblin Berisha, Politecnico di Torino, Italy

The increasing Chinese investments in the Europe are well documented. A growing number of analysts highlight the role of China in influencing national and regional economic strategies by focusing on geopolitical and international relations’ theories. However, until now, few contributions had reflected upon the potential spatial implications of the growing number of political and economic initiatives undertaken by China on the European territory (e.g.: the Belt and Road Initiative, the 16+1 Cooperation Initiative, the acquisition of part of the Pireus port).

Adopting an institutionalist perspective on spatial planning, the authors provide a preliminary overview of the potential influence of Chinese ‘going out’ strategy on the evolution of the spatial strategies of the countries directly interested by the latter, and the way this process acts in convergence or divergence with EU spatial development strategies. More in detail, the main geographical focus of the paper is on the Balkan peninsula, and in particular on the Western Balkan Region, currently the area where most of Chinese infrastructural investments are located.

The hypothesis is that, whereas the EU historically had accompanied and influenced the development of Member States and candidate countries’ institutions and strategies, often by means of economic conditionality, China’s entrance into the stage, and the resulting affluence of Chinese capitals, may have weakened the EU leverage in the Western Balkan Region. As a result of the analysis, the urgency for an acknowledgment of Chinese development ambitions into EU spatial strategies is highlighted, and some tentative recommendations in this concern are brought forward.

THE INTERNATIONALISATION OF R&D: INTERNAL AND EXTERNAL DRIVERS OF LOCATION DECISIONS ACROSS THE GLOBE

Riccardo Crescenzi, London School of Economics, United Kingdom
David Arnold, London School of Economics, United Kingdom
Sergio Petralia, London School of Economics, United Kingdom

This paper aims at understanding the dynamics of regional and national location characteristics, and how they combine with firm characteristics, in influencing the location decisions of multinational firms around the world. To examine these issues, we track over 3,000 of the most R&D-intensive and innovative companies in the world and explore their investment location decisions across over 1,500 sub-national regions around the world. We do this by constructing a novel dataset that assigns a comprehensive set of characteristics to the investing firm, home economy and host economy of each investment around the world. This dataset allows us to examine drivers of location that are internal and external to the firm. We exploit patent data to construct a coordination cost index as a proxy for
internal drivers of agglomeration and see whether factors internal to the firm shape the importance of external drivers of location.

By focusing on a sample of the most innovative companies in the world at the sub-national level, we are able to account for 88 per cent of global business R&D and geographically cover 93 per cent of all foreign investments, thus making our analysis truly global. Moreover, we are able to explore whether or not firms with specific characteristics and geographies display varying location preferences for innovation-related FDI.

THE ERA OF INTERNATIONAL R&D INVESTMENTS

Giacomo Damioli, Joint Research Centre, Belgium
Daniel Vertesy, Joint Research Centre, Italy
Davide Castellani, Henley Business School, United Kingdom

The internationalization of knowledge-intensive (K-I) business activities has seen an unprecedented increase in recent decades. This study contributes to the literature on the role of sub-national characteristics in attracting multinational enterprises’ (MNEs) K-I activities in a broad context that allows to assesses the relative importance of local, national and supranational boundaries matter for the location of K-I foreign investments worldwide. The research question we address is whether territories compete relatively more with other territories within the same countries and/or macro-areas (e.g. Europe or North America) or rather if competition spans national and supranational borders. The answer has interesting policy implications, since it allows understanding the importance of the various overlapping levels of governance in the promotion and support of territories as destination of MNEs knowledge-related investments. Supranational effects are of particular interest in the case of European Union Member States. Since its inception in 2000, the European Research Area (ERA) constitutes a unique attempt of creating an integrated research market in which scientific knowledge, technology and researchers could circulate freely. We estimate nested logit models with different nesting structures spanning 277 urban areas located in 28 countries across the world, and find that supranational borders do matter when firms decide the location of their knowledge-intensive activities. Both supranational and national borders play an important role in Europe, while national borders seem more relevant in North America. The findings support the role of EU policy instruments, such as the ERA, aimed at promoting an integrated research and innovation area in Europe.

REGIONAL IMAGINARIES

Simin Davoudi, Global Urban Research Unit, United Kingdom

The concept of imaginary, coined by Castoriadis in 1975, is used in multiple contexts to provide a deeper understanding of: nation-ness, modernity, democracy, and socio-spatial relations. The latter has shown (see Davoudi, 2018) that how we imagine the spatiality of the region has profound impacts on how we plan for regional futures.

Regional imaginaries are deeply held, collective understandings of what and where the region is. They are socially constructed, politically contested, and performed by and give sense to our spatial practices. They are produced and propagated through maps, texts, images and algorithms and embroiled in processes through which the struggles for determining and/or resisting the dominant ‘spatial fix’ are unfolded and enacted.

While ‘region’ remains an important spatial reference for planning, the regional space has been subject to diverse and conflicting imaginaries with profound consequences for the discourses and
practices of regional planning and governance. Despite such variations, it is possible to distinguish between four types of regional imaginaries which have endured since the 1960s: the bio-natural region, the economic-functional region, the social-cultural region, and the governance-planning region.

Following a critical historical review, I argue that, sixty years of data analyses and cartography have helped to perpetuate and legitimate a distinct imaginary of the region as a functional economic space at the cost of marginalizing alternative imaginaries and their influence over regional planning discourses and practices.

EVALUATING THE EFFICACY OF POLICYMAKING FOR TONSLEY AS A HUB OF A HIGH-TECH REGIONAL INNOVATION SYSTEM IN ADELAIDE, SOUTH AUSTRALIA

Mark Dean, Australian Industrial Transformation Institute, Flinders University of South Australia, Australia
John Spoehr, Flinders University, Australia

The deindustrialising southern metropolitan region of Adelaide, South Australia has been the focus of strategic policy intervention from the sub-national state government since 2008 to develop an innovation district at the former Mitsubishi Motors vehicle assembly plant at Tonsley. To date, little academic research has examined the Tonsley district’s adaptive re-use of the site as an innovation hub involving application of a triple-helix model. Moreover, no research has yet determined the efficacy of this approach as a driver of industrial diversification in the region. This paper examines the transformation of Tonsley following Mitsubishi’s closure, focusing on the identification of formal and informal networks that have emerged and benefits that are attributed to this from the point of view of the various stakeholders. Interviews with key past and present policymakers augment the limited literature examining the intentions of policymakers and the evolution of the site relative to these aims. These included adaptive re-use of the site and a commitment to knowledge-intensive industry development, urban governance and speculative place-based branding. However, it is also evident that more recently a ‘constructed advantage’ narrative has emerged to develop Tonsley as the ‘hub’ of a regional innovation system with a strategic Industry 4.0 focus. The preliminary findings make a novel contribution to the existing literature by investigating the political economy of a constructed advantage policy approach to nurturing high-tech innovation in a peripheral urban region, historically characterised by mass manufacturing.

THE FUTURE OF SINGLE-FAMILY HOUSES IN PERIPHERAL SUBURBAN AREAS - SCENARIO-PROCESS IN AN INTERDISCIPLINARY RESEARCH PROJECT

Clemens Deilmann, Leibniz Institute for Ecological Urban and Regional Development, Germany
Homes-uP Team, IRS ISOE ZEW ifo, Germany

Outside core regions of economic growth increasing indications can be found, that the segment of single family houses (SFH) has difficulties in selling and vacancies, are no longer a rarity in many regions. Part of the research project homes-uP (http://homes-up.ioer.eu) was to write scenarios on possible futures for this housing segment in suburban area. The presentation will explain the scenario-process (collection of influencing factors, ranking, cross impact analysis) and one of the three generated futures for the SFH stock – the “End of Geographic Constraints” scenario. It is a scenario where thanks to proactive policy, which eliminated spatial disparities in development, the digitization of working environments, health care and education arrived in rural regions and made them attractive again: 'In 2050 rural regions will once again be attractive - both as places to live and work. This was a long road that was essentially successful due to several factors: (i) The immense growth in large cities
with increasingly expensive rents, city heat stress from 2040 onward, (ii) technical progress to ‘access’ health, education and working environment, and (iii) politicians had adopted a series of countermeasures above all investment in the social, digital and transport infrastructure. As a result the spatial differences between town and country had gradually lost importance. Also more and more innovative models for the shared use of older SFH have been developed.

**USING URBAN FORESIGHT TECHNIQUES IN CITY VISIONING: LESSONS FROM THE READING 2050 VISION**

Tim Dixon, University of Reading, United Kingdom  
Jenni Montgomery, Barton Willmore, United Kingdom  
Nigel Horton-Baker, Reading UK CIC, United Kingdom  
Lorraine Farrelly, University of Reading, United Kingdom

The emergence of urban (or city) foresight techniques focuses on the need to create coherent city visions to plan and manage for future long-term change and create opportunities for new investment into the local urban economy. This paper reviews the concepts of ‘co-created’ city visioning and urban foresight, setting this in the context of new and emerging practice and policy in the UK, and elsewhere. The paper critically reviews the development of the vision for a small city (the ‘Reading 2050’ project, which was linked to the UK Future of Cities Foresight Programme), and the lessons it holds for visioning, foresight and planning, using the ‘quadruple helix’ (QH) framework as a conceptual lens for analysis. The paper examines the quadruple helix as a focus for examining the power relations of vision development and within this, the specific role of Universities (in partnership with industry/business; government; and civil society) in helping shape city visions. Key issues over the collaboration of local authorities across administrative boundaries (or ‘city region’), and the need for an inclusive approach in vision development, and the role of the University of Reading within this, are discussed. Important questions to address in vision development are therefore who is the vision for? and, who leads (and owns) the vision? The ‘participatory domain’ at the centre of the QH model is not necessarily one of equivalence therefore, and those developing and leading such visions must always reflect on the starting point and the inclusivity of their vision, and what this means for all groups of stakeholders in a city.

**THE ROLE OF TASK BIASED TECHNICAL CHANGES ON LABOR INEQUALITY ACROSS REGIONS**

Jinwoo Dong, Pusan National University, Korea, Republic of  
Youngduk Kim, Pusan National University, Korea, Republic of

This paper provides evidence on relationship between task-biased technical change and interregional disparities of wages and workers in local labor markets. Bigger urban area has advantage of worker’s earnings and employment in high-skilled industries. Consequently, the impact of task-biased technical change on local labor demand in bigger urban area could be larger than in the other regions, which may be associated with the interregional income inequality. Using panel data on the regional aggregate level in South Korea, we propose a relative labor demand based on task-biased technical change to analyze the response of relative wages between the Seoul metropolitan-area (SMA) referred to South Korea’s main metropolitan area and the other regions (NSMA). We find that task-biased scale effects generate the positive relationship between local labor demand and density of bigger firms among regions. This paper also indicates that the wage elasticity of relative labor in the SMA is shown to be more sensitive than the NSMA. The findings highlight that task-biased technical change could be potentially impetus for difference in interregional labor markets, which lead to spatially income disparities between SMA and NSMA.
TOWARDS A REGIONAL CORRIDOR MODEL (RCM)
Ernst Drewes, North-West University, South Africa, South Africa
Andre Brand, Statistics South Africa, South Africa

The delineation of regional trading blocs has received much attention since the amalgamation of much of Western Europe, but still the conceptualisation of a “region” remains somewhat intangible when not demarcated for a specific purpose. Regional systems represent a dynamic structural component of geographical space and form part of a network of systems linked together. The result is the creation of locational connections between economic nodes where large amounts of economic resources are concentrated. One of the key concepts underlying locational relationships is the concept of development corridors.

Although significant evidence exist that corridors are regarded as important spatial development instruments, arguments that emerged from the critiques of corridors indicate the need for broader strategies as well as a greater awareness of agglomeration economies to allow for the integration of corridors as strategic networks. The main objective of constructing a RCM is to establish a spatial framework and theoretical intervention through which corridor development can be integrated as part of a strategic network. There are five distinct elements the RCM potentially offers, i.e.: 1) it provides a framework for the establishment of regional economic zones; 2) it delineates explicit, focused regions guiding economic space development; 3) it highlights nodes lacking potential; 4) it promotes economic advantages for nodes located in close proximity to the connecting links; and 5) it constructs economic conditions stimulating intra-regional/cross-border trade opportunities. Accordingly, regional planning could potentially, through the RCM, develop a realistic spatial perspective to transform economic space development, seeking to connect the potential regional and urban systems offered in economic development.

HYBRIDIZATION OF REGIONAL AND URBAN DEVELOPMENT – REFLECTIONS ON CHANGING PATTERNS OF CONTEMPORARY DEVELOPMENT
Adam Drobniak, University of Economics in Katowice, Poland

To gain a competitive advantage the business response to globalization assumes a rapid search for new products, markets, and sale models. High mobility of private capital along with digitalized solutions and modern logistics increases over-regional re-location of value chains. Traditional geographical growth centres are shifting in the scale of continents, countries, regions and cities. In consequence interactions of economic forces manifest themselves in various flows of diverse assets. This kind of diversity creates a space for hybridization of development generally perceived as effect of linking, combining different beings, cultures, solutions, technologies, legacies.

The presentation aims at searching for the theoretical justification as well as the empirical evidence of hybridization of regional and urban development as read in a category of growing meaning of diversity in contemporary world.

The considerations on hybridization of regional and urban development will be divided into three parts. First will outline the concept of hybridization of development. It will focus on: the different approaches to hybridization (like territorial and sectoral), the different levels of hybridization (firms, cities, regions, countries). The second part will be an attempt to identify methodological proposals for the hybridization studies, including the context of a large diversity of development dynamics of cities and regions (territorial dimension) with connection to “a-spatial” locations of links of production chains (sectoral dimension). Third part of the proposal will discuss a following questions: to what
extent does hybridization in the field of business sector behaviours (like: re-locations, diversity) promote the hybridization of economic space?

THE IMPORTANCE OF TRANSPORT INFRASTRUCTURE INVESTMENTS IN EU’S LOW-INCOME REGIONS: EMPIRICAL EVIDENCES FROM ROMANIAN REGIONS
Mihail Eva, Alexandru Ioan Cuza University of Iasi, Romania
Corneliu Latu, Alexandru Ioan Cuza University of Iasi, Romania
Alexandra Cehan, Alexandru Ioan Cuza University of Iasi, Romania

Recent debates around the post-2020 EU Cohesion policy have underlined the importance of rethinking investments in lagging regions in order to stimulate their development and counter regional disparities. However, development factors act differently according to context, thus making universal policies deceptive. Not surprisingly a differentiation between ‘low-growth’ and ‘low-income’ regions has recently emerged (European Commission, 2017; Farole et al., 2018).

Our paper derives from previous results concerning the varying importance of transport infrastructure provision in the development of peripheral regions. It tests their importance for regional development for the particular case of Romanian ‘low-income’ regions. We therefore look at the role transport infrastructure played during the last two decades in explaining regional growth (at NUTS3 level). We do this by defining and employing two econometric models. For the transport infrastructure provision we test multiple proxies: the density of a given infrastructure types, the spatial accessibility of Romanian localities to large transport infrastructures, but also the spatial accessibility of localities to European markets within the existing and upgraded road transport network. A proxy reflecting large scale transport infrastructures endowments alongside with one proxy reflecting endowments in secondary infrastructures are also included in the models.

Dependent variables for measuring economic development are alternatively GDP/inh and employment levels at NUTS3 level. We control for human capital and the development level at the beginning of the period analysed. Findings have implications for developing better Cohesion policies for eastern EU countries such as Romania.

CLUSTER RENAISSANCE IN INDUSTRIAL REGIONS? THE CHANGING GEOGRAPHY OF ADVANCED MANUFACTURING IN BRITAIN
Emil Evenhuis, University of Southampton, United Kingdom
Peter Sunley, University of Southampton, United Kingdom
Richard Harris, Durham University, United Kingdom
Ron Martin, University of Cambridge, United Kingdom
Andy Pike, Newcastle University, United Kingdom

One of the key aims of the UK government’s industrial strategy is the revival and strengthening of manufacturing ‘clusters’. Drawing upon conventional/mainstream economic accounts/thinking, it is claimed that clusters are important for high-productivity manufacturing by facilitating access to skilled labour markets, specialised suppliers, knowledge spill-overs and shared assets. However, the empirical evidence on the evolution and status of manufacturing clusters in Britain is dated, limited and incomplete. Another rationale for the UK’s industrial strategy is that enhancing the competitiveness of advanced manufacturing clusters will significantly benefit places in which manufacturing had traditionally been strong, contributing to a ‘spatial rebalancing’ of the British economy. Again, the evidence to support this argument is weak. This paper addresses these two knowledge gaps. Based on detailed and long-run data going back to the early 1970s, the paper examines the changing
geography of advanced manufacturing in Britain. It finds that dispersion rather than geographical concentration has been the dominant trend over the past three decades, creating new centres and belts of manufacturing activity. Regions with a large manufacturing presence in the past do not appear to be especially favoured as locations for advanced manufacturing, and only some of these regions have experienced considerable growth in segments of advanced manufacturing. The effects of clustering on productivity varies considerably between different sectors of advanced manufacturing and generally only applies to larger firms. These findings raise challenging questions for the UK industrial strategy’s place and cluster-based approach and the potential contribution of advanced manufacturing to spatial rebalancing.

THE ROLE OF HIGHER EDUCATION INSTITUTIONS (HEIS) IN PROVIDING KNOWLEDGE WORKERS FOR THE FUTURE DEVELOPMENT OF THE REGIONAL ECONOMIES: A REVIEW
Sandra Ewohime, Waterford Institute Of Technology, Ireland
Helen Lawton Smith, Birkbeck University of London, United Kingdom
James O’Sullivan, Waterford Institute of Technology, Ireland
Bill O’Gorman, Waterford Institute of Technology, Ireland

In light of the current era of globalisation and rapid technological advancement, the fourth industrial revolution is fast evolving (Gray, 2016), bringing with it unprecedented challenges to the competitiveness of regional firms. Thus the future economic prosperity of regions will depend on the ability of these businesses to provide innovative offerings by employing knowledge workers (Damoc, 2017).

It is against this backdrop that HEIs are increasingly being challenged to develop new approaches to help facilitate the labour market readiness of HEI graduates by imparting them with the relevant skills and competencies that will shape them into these highly desired knowledge workers. Based on Quintana’s et al. (2016) study of university business cooperation within EU States, HEIs need to equip graduates to be able to be effective within the accelerated changes taking place in society, the workplace and regional economies.

According to Human Capital theory the competitiveness of businesses and therefore regional economies is directly dependent on the investment in education to generate graduates with innovative capabilities, knowledge, skills and competencies. However, a graduate degree alone is no longer sufficient to guarantee employment because a high level of “skills gap” exists between the degree’s content and the needs of industry/business (Velasco, 2012).

This paper, therefore, reviews how the role of HEIs needs to be a core element of a collaborative process with other regional stakeholders if HEIs are to be successful in imparting graduates with the appropriate knowledge, skills and competencies for the future development of their regional economies.

PLANNING FOR URBAN RESILIENCE THROUGH GOVERNANCE EXPERIMENTATION? A FRAMEWORK FOR ANALYZING URBAN RESILIENCE ACTIONS
Sebastian Fastenrath, University of Melbourne, MSSI, Australia
Lars Coenen, University of Melbourne, MSSI, Australia

Over the past decade, resilience has emerged as a core principle of sustainable urban and regional development and as a key topic in academic and political spheres. Resilience strategies and actions are increasingly suggested as a progressive approach to deliver urban services and planning activities
in areas that appear ill-equipped to deal with transformational pressures (e.g. Davoudi et al. 2012, Rogers 2015). Engaging more analytically and critically with resilience actions, we argue that they can be conceptualized as ‘urban governance experiments’ that aim to break down and re-construct ossified and locked-in governance structures by disrupting and recreating institutional path dependencies through cooperation, coordination and contestation between public, private and academic sectors.

When interrogating this new so-called experimental form of governance (Bulkeley et al. 2018) and its potential for institutional embeddedness in urban and regional social-technical and socio-ecological systems, urban resilience planning and policy needs to be further investigated and explored (Davidson & Gleeson 2017, Meerow et al. 2016). It remains unclear how urban resilience is translated from strategy into practice and implemented in specific contexts and how it relates to existing governance and planning approaches in and for the city. This paper outlines a framework to analyze urban resilience actions and the role of global city networks. As the core of the paper, we present analytical dimensions by drawing on key elements which need to be explored: involved actors including their roles and motives, forms of coordination, learning and knowledge creation and transfer, experimentation, and aspects of spatiality and temporality.

**SOCIETY, SPACE, AND INSTITUTIONS TO THE TEST OF THE GREAT CHANGES OF THE GLOBAL ECONOMY: FUTURE RESEARCH CONCERNS, CHALLENGES AND IMPLICATIONS FOR CITIES AND REGIONS**

Valeria Fedeli, Politecnico di Milano, Italy
Camilla Perrone, Università di Firenze, Italy

Extraordinary changes are produced in economy and society by the restructuring of capitalism, while little research is available on its territorial effects.

Academic debate underlines the necessity to return to focus upon the relations between processes of urbanization and the re-structuring of capitalism to understand both the ways that differential and unequal urban development comes about, along with its consequences: new socio-political-economic assemblages that produce new inequities and forms of power/conflict.

This contribution aims to investigate the ways in which policies and institutions are organized to the test of modern contemporary processes of innovation and growth - in particular moving from the Italian context. It then explores the link between the forms of production of the physical and social space, and the restructuring processes of the capitalist economy. In particular, a conceptual, critical and retrospective reframing of regional policies over the last decades is addressed to explore the weakening of the role of the state and to decipher the territorial effects of the new nexus between space, economy and society. To do so the paper reflects upon a new analytic and interpretive protocol aiming at investigating the emergence of new kinds of marginality/centrality following the post-colonialist literature according to which development policies tend to construct a narrative of problems in which the identification/stigmatizing of marginality prevails and is still largely anchored to 20th century urban and spatial imaginary.

All in all the paper seeks to contribute to conceptualize a new generation of "urban/territorial" policies that challenge the regions and cities, based upon a re-definition of territorial centrality and marginality.
INNOVATIONS IN RURAL MUNICIPALITIES: DYNAMICS AND CHALLENGES OF CREATIVE COMMUNITY DEVELOPMENT
Tobias Federwisch, Leibniz-Institut fuer Raumbezogene Sozialforschung (IRS), Germany

Many German villages are characterized by infrastructural, economic, demographic and/or socio-cultural challenges. Especially rural municipalities in East Germany are facing negative development prospects and are rarely seen as laboratories for innovation.

However, in some crisis-shaken villages people experimentalise with innovative ideas in order to tackle local challenges. As research of the Leibniz Institute for Research on Society and Space shows, the villagers develop ambitious innovative projects and thus challenge traditional discourses of rural backwardness.

This presentation is based on research findings of the project “Innovations in Rural Municipalities”. The project investigates innovative projects in disadvantaged villages and asks for conditions, players and processes of creative community development. It combines participatory observations, document analyses, interviews and quantitative surveys. It aims at contributing to theoretical, conceptual and empirical studies on social innovation processes in structurally disadvantaged rural regions, which are still rare.

The case study to be presented will be the small East German village of Walddorf (place name changed), which has been rewarded for its innovative renewable energy project. It starts with a brief introduction into the specific situation of rural areas in East Germany. It then focuses on the conditions, players and processes relevant to the renewable energy project. In doing so, the presentation shows spatial and temporal dynamics of the project, which aimed at constituting new pathways for local energy supply. It concludes with observable challenges, conflicts and paradoxes and shows that the villagers had been constantly struggling with this innovative project.

IMPACTS OF A MULTINATIONAL COMPANY ON THE CITY DEVELOPMENT
Dávid Fekete, Széchenyi István University, Hungary

Presentation shows how car manufacturing centers have their changing role in the local development processes. 25 years ago Audi AG established a new engine factory in Győr (Hungary). The city with centuries of industrial culture became part of the global value chain with the establishment of the multinational corporation. The site became the world’s largest engine factory, and in the meantime, the production of cars has also begun. The factory now employs more than 12,000 people directly, and indirectly tens of thousands of people benefit from its economic impact. In the framework of an ongoing research project the impacts of the large multinational company are analyzed on the time frame.

In the framework of the presentation, I will present the embedding process of the Audi factory in Győr through the following five pillars: human resources, economic impacts and suppliers, impacts on local consumption, social embeddedness, impacts on urban development.

Summarizing conclusions, vehicle manufacturing company plays a significant role in the local education and training system, and implements important research programs together with the local university. The economic impact on the city is manifested mainly through the local business tax, but supplier relationships are also more and more important. The factory also demands the involvement of international professionals who increase the number of city guest nights and the employees considerably increase the purchasing power of the city. An important measure of social inclusion is
the company’s CSR activity. Considering impacts on urban development, the most important indicators are infrastructural and transport developments.

**HOW CHINA FITS IN GLOBALISATION: INSIGHT FROM THE GLOBAL VIOLIN INDUSTRY**

Rong Feng, Tsinghua University, China
Chaolin Gu, Tsinghua University, China

Violin originated in northern Italy. In the last hundreds of years, violin production has shifted from within Europe to America, Japan, Asian Tigers and then to China, with approximately thirty thousand farmers producing 60% of the world’s violins, concentrating in two sites. Violins were only royal prerogative, but with mass production, they now have global markets. Its production, from material selection, craftsmanship apprenticeship, production methods to skill demonstration, all have distinct regional characteristics. Violin-making, therefore, can be seen as representative of globalisation and its spatial evolution needs in-depth study from the perspective of global-local nexus.

This research is based on two outer suburbs, Donggaocun of Beijing and Huangqiao at the edge of Shanghai metropolitan. We followed up with the regional development and collected data with five rounds of field trips and carried out 54 interviews from July 2016 to May 2017. We constructed the theoretical framework of globalisation with Chinese characteristics from the perspective of global-local nexus. This paper is divided into four sections. In Section 1, the theoretical framework is conducted. In Section 2, the violin production is analysed, focusing on its global shift and evolution in China. In Section 3, we analyse the dynamics and major driving forces including labor, technology, capital, international trade flows. Section 4 focuses on the spatial response to China’s globalisation. The development of industrial clusters, industrial parks, the globalising of cities and its changing role in the global city regions, as well as the challenges ahead will be analysed. The last section concludes.

**HUMAN AND SOCIAL CAPITAL IN LOCAL ECONOMIC DEVELOPMENT**

Carlos Ferreira, Centre for Business in Society (CBiS), United Kingdom
Jennifer Ferreira, Centre for Business in Society (CBiS), United Kingdom
Kevin Broughton, Centre for Business in Society (CBiS), United Kingdom
Stewart MacNeill, Centre for Business in Society (CBiS), United Kingdom
Kate Broadhurst, Centre for Business in Society (CBiS), United Kingdom

English local authorities are key stakeholders in the promotion of economic development. However, they have seen their means to promote growth reduced, as many direct regulatory and planning powers have been lost to either centralisation or devolution to higher-level regional governance institutions, such as Combined Authorities. In addition, economic austerity after the 2008 financial crisis has led to a reduction to core funding, and the need to compete for financing through transient project consortia. This paper examines how Local Authorities can promote growth in this context.

The research is based on two cases studies in the automotive sector in which Coventry City Council was involved. Data was obtained through interviews with stakeholders and documental analysis. The findings indicate the importance of social and human capital. Social capital – where individuals in the local authorities establish links in local and regional networks – and Local Authorities operate as relationship brokers. Thus they become repositories of tacit knowledge, which becomes a key component when funding for, and management of, local economic development projects depends on networking with a variety of stakeholders.
Equally, the level of human capital in local authorities – embodied in experienced and knowledgeable individuals – is increasingly important, especially when implementing innovative projects. These individuals can engage in policy entrepreneurship, promoting new approaches and addressing obstacles, including barriers within the local authority itself.

The results suggest that the traditional means of delivering local economic growth – regulatory power and funding – are being partially substituted by ‘softer’ means – social and human capital.

**ONE POLICY, DIFFERENT EFFECTS: ESTIMATING THE REGION-SPECIFIC EFFECTS OF EU COHESION POLICY FUNDS**

Ugo Fratesi, Politecnico di Milano, Italy
Paolo Di Caro, University of Catania, Italy

Cohesion policy exists in a form similar to the current one since 1989, i.e. after the reform which followed the Single European Act of 1986. In this long period of time, a large number of academic papers have investigated the impact of the policy, with results which are often not consistent.

In the last periods of time, the focus of the literature has been on the fact that the impact is not homogeneous, but mediated by the presence of “conditioning factors”, which can increase the impact in the presence, for example, of human capital or a good quality of government.

However, when estimating the effects of cohesion policy funds on regional economic performance with traditional estimation models, such as panel fixed-effects or spatial models, the assumption of slope homogeneity for the different cross-sectional units (i.e. regions in this case) is generally made. This implies that the estimated effects are equal for all the European regions, or for groups of them. To overcome this, this paper has two main objectives, which are novel contributions to the cohesion literature. First, from a methodological point of view, it applies the dynamic Mean Group (MG) estimator, which allows the slope coefficients to differ across panel members, in order to investigate the individual effects of cohesion policy funds in the different European regions. In the presence of regional differences in economic structures and a different amount of cohesion policy funds allocated to the different regions over the years, it is possible that the coefficients of interest show some degree of heterogeneity across regions and that cohesion policy has region-specific effects on economic and labour market variables.

Using recently made available data on cohesion expenditures covering a period of three decades, this paper is the first to our knowledge to apply the MG estimator for the analysis of cohesion policy. This method is important for disentangling the different patterns of good/bad fund absorption across Europe.

Second, and more relevant from a policy perspective, the paper investigates the causes behind the differences in the individual coefficients quantifying the effects of the cohesion policy in the different European regions. Specifically, the aim is to make a distinction between the region-specific (i.e. internal) factors influencing the relation between cohesion funds and regional economic performance and the factors that are due to specific spatial interactions among regions. For instance, the paper aims to explain if the good funds absorption of some CEECs regions close to the border with the old member states is due exclusively to factors identifiable in such regions (e.g. human, social, territorial capital) or to the presence of relevant connections with neighbouring regions.
SPECIAL ECONOMIC ZONES AND SPILL-OVERS INTO THE SURROUNDING AREAS
Susanne Frick, London School of Economics, United Kingdom

Do Special Economic Zones (SEZs) contribute to growth in their surrounding areas or do they remain ‘enclaves’ of economic activity? Despite the popularity of SEZs as a policy tool in virtually all developing countries around the world, there is little evidence to date which systematically analyses this question. This paper, thus, aims to shed light on this under-researched topic by quantitatively analyzing the impact of the growth of 346 SEZs in 22 emerging countries on the economic performance of their surrounding areas. The analysis uses nightlights data as a proxy for SEZ performance as well as the economic performance of the surrounding area in order to overcome the lack of reliable economic indicators when measuring SEZ performance. It furthermore relies on a novel dataset on SEZ characteristics in order to understand in how far those impinge on the economic fortunes of the surrounding areas.

We find that SEZ growth has a positive impact on the economic performance of the areas around the zone. However, this impact is limited in space with a strong distance decay effect: the magnitude of the effect decreases continuously up to 50km. Furthermore, many factors assumed to have a facilitating effect, such as the educational level in the region around the zone and political stability, do not seem to matter on a structural basis. An export requirement for firms within the SEZ, in contrast, has a negative impact on the effect on the surrounding area.

THE ELECTORAL BIAS: DISTRIBUTIVE POLITICS AND LOCAL DEVELOPMENT IN BRAZIL, MEXICO, CHILE AND COLOMBIA
Xabier Gainza, University of the Basque Country, Spain
Felipe Livert, Alberto Hurtado University, Chile

This paper analyzes the existence of partisan and electoral concerns in the allocation of investment from the central to the local level in Brazil, Mexico, Chile and Colombia. Drawing on panel data and considering major investment transfers, political variables, local governments’ revenues and expenditures, and municipalities’ socio-demographic characteristics, we analyze the influence of two forms of electoral distortions: ‘pork-barrels’, i.e., targeting particular constituencies as a reward for their loyalty, and ‘political budget cycles’, i.e., fund fluctuations along the term in office to maximize re-election chances. Preliminary results show that political concerns drive the allocation of investment beyond efficiency or spatial equity goals, but the magnitude and the tactical behaviour differs across countries. Municipalities governed by mayors belonging to the ruling coalition parties at the national level are consistently favoured in Brazil, Colombia and Chile, whereas in Mexico distribution holds a more nuanced pattern. Results indicate that local power rather than central governments’ electoral prospects is a major force driving the allocation of funds, since municipal results are considered but national elections seem to have no influence. Estimations also show that investment increases in electoral years while fluctuating along the political budget cycle in the four countries. Based on the results, the paper addresses the implications for regional development and policy. In particular, we discuss what transfer systems and what institutional designs seem to be better suited to cope with political distortions as the four countries of the sample hold different decentralization levels.
CONCEPTUALIZATION OF THE MULTI-LEVEL GOVERNANCE STRUCTURES AND POLICIES. THE EXAMPLE OF POLISH REGIONS

Rafał Gajewski, University of Gdańsk,

The literature on multi-level governance (MLG) could be described (following Alcantara, Broschek and Nelles) as a “growth industry”. They claim that despite of (or perhaps – due to) the growing amount of books and papers concerning MLG, this notion still remains too liquid and undefined. That’s why it requires new conceptual classification and as well as in-depth analysis to maintain its theoretical and cognitive value. A similar view is often indicated in the literature.

It seems that a good stress-test for the MLG concept could be the research concerning the position of the regional government in Poland within administrative territorial structures, including national policies towards Polish regions as well as the role of the regional government in the process of creation of metropolitan structures and policies. These issues seem to be unique against the background of past European experience. However, at the same time their analysis could give a significant input into further MLG studies and conceptualisations or have practical dimension in terms of composing future institutional landscapes. Especially when it comes to defining and understanding of MLG structures and policies among different actors.

In the presentation, at first I will try to weigh current MLG discourse against Polish regional/metropolitan debate as well as multidimensional approach (and its implications) towards regional studies. Then, I will present some ideas on how to combine and operationalize these dimensions into more precise research agenda.

OUTWARD FDI AND LOCAL EMPLOYMENT IN THE UNITED STATES

Roberto Ganau, London School of Economics and Political Science, United Kingdom
Riccardo Crescenzi, Department of Geography and Environment, London School of Economics and Political Science, United Kingdom

Recent political developments are highlighting a tendency towards international closure in several countries all around the World. In particular, the purpose of limiting – or, at least, increasing the control over – international operations run by domestic companies has become a "flagship" idea in the United States (US) under Mr. Trump's administration. In this respect, the "bring jobs back to America" policy represents a clear example of a policy-driven process of "re-nationalisation" of economic activities previously localised abroad by multinational firms in order to exploit competitive advantages related to inputs' availability, proximity to final markets and/or learning opportunities.

Therefore, it is highly relevant to investigate if and to what extent the active internationalisation of domestic firms through outward greenfield foreign direct investments (FDI) may induce a "substitution effect" with respect to domestic employment, and the US economy represents an ideal research field to investigate this question.

To this aim, we propose an empirical analysis which focuses on the relationship between outward greenfield FDI by US companies and employment levels in US Economic Areas over the period 2005-2015. The results suggest three interesting insights. First, the relationship between employment levels and outward greenfield FDI is, overall, positive. This means that, overall, local employment levels do not diminish following the creation of new jobs abroad through outward FDI. Second, this relationship is sector-specific, i.e. it varies across different sectors. Finally, the sector-specific association between employment levels and outward FDI varies also across host economies/destination of the investments.
Cambridge Econometrics were commissioned by the Department for Business, Energy & Industrial Strategy to fill a gap in the evidence base by investigating the impacts of commercial property developments (CPD) on local labour markets. Whilst the direct benefits of improving the national stock of employment space are obvious, questions remain as to the exact impact of the provision of new developments both on the firms that subsequently occupy them, and the areas they are located in. In order to address this, a database was developed using property- and firm-level data from the Inter-Departmental Business Register to provide a range of indicators of local unit activity on new CPDs. The combined dataset was then used to estimate the impacts of commercial property on local economic growth and productivity. Different categories of site were investigated separately, including industrial estates, business parks, office developments, incubator sites, and science & research parks.

Using a range of econometric techniques, the analysis found a number of statistically significant effects, including impacts on the numbers of employees and turnover of firms moving to a new CPD, and evidence for displacement effects in employee growth and turnover growth in the surrounding 2km ring following the opening of new CPDs.

Further analysis used data from the Annual Survey of Hours and Earnings (ASHE), and found positive impacts on normalised wages in a 2km ring surrounding new Incubators and Science/ Research parks developments, while positive impacts on the occupational mix were estimated in all five rings around the incubators.

Inter-firm cooperation is a way to enhance productivity in economies characterised by high fragmentation in land and business ownership. The challenge is that inter-firm cooperation is often thwarted by intractable collective action problems that are particularly difficult to resolve in institutionally-thin, low-trust settings such as Greece. Despite this difficulty, several examples of stable patterns of intense cooperation among producers do, in fact, exist in Greece. Hence, the question arises: Under what conditions can inter-firm cooperation arise at local level in Greece and other similar socioeconomic settings?

To approach this question, this paper focuses on the mechanisms of trust formation in the Greek agri-food and tourism sectors. It draws on qualitative empirical evidence collected through fieldwork in four particular areas of Greece where specific types of cooperation were observed, compared to four otherwise similar (matching) cases where such patterns of cooperation failed to occur. The findings are also tested against evidence collected in one particular area in Southern Italy, in order to gauge their wider applicability. In total, the paper relies on 64 in-depth interviews conducted in nine areas of Greece and Southern Italy, as well as on relevant documentary evidence (e.g. meeting minutes, local press).

In order to show the relevance of trust in the case study areas under scrutiny, the paper uses game-theoretical language to analyse the incentive structures underlying collective action problems faced by economic agents as they strive to collectively acquire capabilities for quality upgrading. Contrary
to the proponents of cultural approaches to trust, the paper argues that trust is a resource that can be created or lost in the present, depending on the observed patterns of behaviour of particular classes of actors. The paper then explores the conditions under which such observed patterns of behaviour can change so that trust-based relationships can be established, with a focus on the role of leadership, location in domestic-level political networks, and exposure to international networks.

**LOCALISM IS AN ILLUSION (OF POWER): DIVERGENCE AND TENSIONS IN THE UK MULTI-SCALAR GOVERNANCE SYSTEM**
Cristian Gherhes, University of Sheffield, United Kingdom
Tim Vorley, University of Sheffield, United Kingdom
Chay Brooks, University of Sheffield, United Kingdom

The election of the Coalition government in 2010 was the catalyst for a new UK devolution wave that gave rise to a ‘new localism’ (Pugalis and Fisher, 2011; Pike et al., 2015). As RDAs were replaced with Local Enterprise Partnerships (LEPs), this was heralded as a stepping stone in shifting power to local communities and ending the ‘Whitehall knows best’ culture (Harrison, 2014; Pike et al., 2015). However, concerns regarding LEPs’ capacity to perform locally inflected roles and to foster the horizontal coordination of the myriad of local actors have produced a wave of criticism of this new localism (Etherington and Jones, 2016; Lowndes and Gardner, 2016; Tomaney, 2016; Bailey and Wood, 2017; Ayres et al., 2017). Bentley et al. (2010) went as far as stating that localism is an illusion, arguing that LEPs will lack the power and resources required to fulfil their roles.

The paper examines the current UK multi-scalar governance system through the lens of enterprise policy. Drawing on 50 interviews with stakeholders and entrepreneurs from the Sheffield City Region, and on political-economic and institutionalist perspectives, the paper highlights that austerity and the limited transfer of powers and resources have produced a localism that creates the illusion of power. The existing arrangements impose significant limits on local economic development interventions and constrains the agency of local stakeholders, resulting in interscalar (i.e. vertical) as well as intrascalar (i.e. horizontal) tensions. It concludes that governance has become a game of negotiating power and resources between and within scales, and within the confinements of centrally prescribed objectives.

**FDI INFLOWS AND IMPACT IN EUROPEAN REGIONS: WHAT ROLE FOR INVESTMENT PROMOTION AGENCIES?**
Mara Giua, Università degli Studi Roma Tre, Italy
Riccardo Crescenzi, London School of Economics, United Kingdom
Marco Di Cataldo, London School of Economics, United Kingdom

Over the past two decades the sharp increase in global investments flows has been coupled by a growing competition among national and sub-national (regional) authorities for the attraction of FDI. In this context Investment Promotion Agencies (IPAs) have become increasingly common policy tool not only for countries but also for regions with a diversity of institutional configurations and strategies and with heterogeneous degrees of coordination. While some literature exists on national IPAs, there is no research on their sub-national impacts as well as on the effectiveness and impacts of their regional counterparts. This paper aims to fill this gap by exploring the regional impacts of both national and regional IPAs in the countries of the European Union. The paper leverages an ad-hoc survey on the structure and strategy of national and regional IPAs in Europe, developing a differences-in-differences model. The empirical analysis tests whether the strategic targeting of key investment sectors from national and/or regional agencies contributes to the inflow of foreign investments to the host regions, and examine the extent to which such investment has had a significant impact on the
host economy. Our evidence suggests that national and regional IPAs have a positive impact on targeted sectors, receiving more FDI (in terms of both dollar values and jobs created) than non-targeted sectors.

**SPATIAL EFFECTS OF DIGITAL TRANSFORMATION. AN ANALYSIS ON THE EXAMPLE OF AN AUTOMOTIVE R&D NETWORK**

Jonas Glaesser, Technical University of Munich, Germany
Michael Bentlage, Technical University of Munich, Germany
Alain Thierstein, Technical University of Munich, Germany

The automotive sector changes from a mechanical engineering industry to a more tech-intensive area. Hence, not only Silicon Valley-based tech-companies try to develop autonomous vehicles, but also traditional car manufacturers expand their field of competence by adding more knowledge from formerly separated businesses. This leads to a dynamic in firms’ knowledge networks triggered by the search for new technological capabilities. That raises the question whether new industries follow the old economies, or a reorganization of localized value chains is needed in order to exploit agglomeration and network advantages, which is applied to the case of the BMW Group as a car manufacturer and a mobility service provider. This paper tries to observe this process spatially to give guidance to what extend firms’ abilities to innovate and reposition themselves depend on spatial reorientation. In order to explore whether geographical shifts are emerging, the paper refers to extra-firm supplier connections. The central question this paper asks is “How does technological disruption change the spatial configuration of R&D relations?” Thus, we assume a spatial shift within the knowledge actors revolving around the mobility sector. This paper uses data of BMW’s ego network with its suppliers in the field of advanced producer services. Our analysis, firstly, aims to identify technological hotspots of this relations. We secondly, describe the interrelation between spatial proximity and the type of these network links by looking closer at the services that are carried out.

**TOWARDS A SUSTAINABLE, NEGOTIATED MODE OF STRATEGIC REGIONAL PLANNING: A POLITICAL ECONOMY PERSPECTIVE**

Ian Gordon, London School of Economics, United Kingdom
Tony Champion, London School of Economics, United Kingdom

The idea that strategic planning can give a coherence and positive direction to the development of complex regional systems within preponderantly market economies remains a powerful and salient one. This is despite the fact that, in one of its classic arenas (England’s Greater South East), the past 75 years have seen only intermittent efforts at practice, and only weak impacts - except in respect of the Metropolitan Green Belt where their perversity was diagnosed by Peter Hall (1973). The intensity of the current housing crisis here is testimony both to the need for genuinely strategic planning and to fundamental flaws in its application over this long (trial) period.

The context for such planning has now changed in some rather significant ways, including the recent rise of populist resistance to ‘elitist’ expert opinion, and wider acceptance (within those circles) that uncertainties about the future need to be addressed much more seriously. But in our view the prime case for a new model of strategic regional planning is to be found in the failure of the old one rather than in such contextual changes. More specifically, we see this failure as resting on a strategic evasion of the continuing reality of strong economic (market) and political (conflict/consensual) forces. The paper develops this line of analysis in three stages: conceptually in relation to the political economy of metropolitan systems; empirically through the GSE experience; and remedially in a model of sustainable planning involving development of shared understandings and deal-making.
THE DEPTHS OF THE CUTS: THE UNEVEN GEOGRAPHY OF LOCAL GOVERNMENT AUSTERITY

Mia Gray, University of Cambridge, United Kingdom
Anna Barford, University of Cambridge, United Kingdom

Austerity, the sustained and widespread cuts to government budgets, has characterised Britain’s public policy since 2010. The local state has undergone substantial restructuring, driven by major budget reductions from central government. Hitherto, few studies of austerity in the UK have considered the interplay of national and local policies. We contribute a fine-grained spatial analysis of local authority budgets, highlighting their socioeconomically- and geographically-uneven impacts. We identify substantial variations between authorities in terms of funding, local tax-base, fiscal resources, assets, political control, service-need and demographics. We argue that austerity has actively reshaped the relationship between central and local government in Britain, shrinking the capacity of the local state, increasing inequality between local governments, and exacerbating territorial injustice.

REGIONAL POLICY MOBILITIES: SHAPING AND RESHAPING BIOECONOMIES IN VÄRMLAND AND VÄSTERBOTTEN

Ida Grundel, Karlstad University - Centre for Regional Studies, Sweden
Ida Andersson, Örebro University, Sweden

Several cities and regions around Europe have committed themselves to becoming pioneering actors for a bio-based and green economy. One example of this development is the many policy programs targeting the green economy launched on various geographical scales. A commonality in many of these programs is the idea that they should provide learning opportunities, and possibilities to share so called best practice policies to places elsewhere, often referred to as policy mobility. Doubtless a good and amicable ambition, sharing best practice policy models through policy programs have been argued to produce oversimplified views of complex climate issues. Despite such criticism, have the idea of finding and disseminating best practice policies within the green economy policy programs sustained.

This paper aims to shed light on the development of green economy policy programs in two Swedish regions, Värmland and Västerbotten, with the focus on share-ability and dissemination of best practice policy. It does so by trying understand the socio-spatial processes that contribute to the development of green economy policy programs. So far, research on so-called policy mobility has had a primarily urban focus, whereas this paper provides valuable insight to how these processes takes place in regional and more peripheral settings. The two case studies are forerunners in developing a forest based bioeconomy in a Swedish context. The questions that will be answered in this paper are how are these policies developed, in what socio-spatial contexts and what features of green economy policy is being promoted as generalizable and adoptable elsewhere?

STRESS-TESTING LOCAL FOOD NETWORKS AS AN INSTRUMENT OF LOCAL AND REGIONAL DEVELOPMENT – THE CASE OF DENMARK

Henrik Halkier, Aalborg University, Denmark
Laura James, Aalborg University, Denmark

Local food networks have become a much-used policy instrument in recent decades, in and beyond Europe and North America. Driven by consumer concerns about food safety, environmental concerns about food miles, and distrust of global agri-business, networks have emerged as attempts to bridge the gap between consumers and producers of local food in order to promote local/regional development. A small but growing literature has analyzed local food networks, especially from the
perspective of political discourse (anti-capitalist or not) and the qualities of the food invoked as selling point. In recent years attempts have been made to move beyond case stories of individual networks in order to reach a more comprehensive view of local food networks, especially the relationship to conventional agro-business, their relationship to regional and inter/national governance, and, not least, the different activities engaged in by networks and how they develop over time (e.g. Tregear, 2011; Goodman et al., 2011). The aim of this paper is to analyze the interplay between governance structures, stakeholder configuration and economic resources in local food network in five Danish regions in order to 1) identify differences and similarities between the networks, and 2) discuss how these characteristics may be related to the development of the networks, successful or otherwise. The paper concludes that networks with diverse profiles in terms of activities and revenue sources are more likely to succeed in continuing to make a substantial contribution to their members and the development of their region.

SUBURBAN WORLD: COMPARING THE GOVERNANCE OF GLOBALIZING REGIONS FROM THE OUTSIDE IN
Pierre Hamel, Université de Montréal, Canada
Roger Keil, York University, Canada

The necessity to revisit regional planning goes back at least to the global financial crisis of 2008-9. But it is also the ever expanding processes of urbanization, converging with metropolitanization and starting, if not previously, by the end of the previous century, that are at stake. No doubt that in such context the relations between planning and regions have been under pressure, facing “powerful challenges”. Relying on a comparative method open to bringing our case studies in conversation with the prevailing urban studies literature, we want to better explain how suburban governance takes place in city-regions.

While most of the rhetoric and discussion on the “bargaining position” of urban areas is linked to the imaginary of cities as places of centrality, the focus of our paper, however, is not the urban centre but the urban region. The focus of this paper is the urban region with its growing web of metropolitan governance.

Situated between the experiences “of more market-oriented urban development like in the United States and the more state-led developments in European cities” our case studies give us the possibility to highlight how categories once believed stable are destabilized in the process of postsuburbanization which confronts Toronto and Montreal regions with new problem constellations at the urban periphery as regions still grow at the margins while the existing suburbs urbanize rapidly.

THE UNEVEN GEOGRAPHY OF FORECLOSURE AND HOUSING MARKET RECOVERY IN THE CLEVELAND SUBURBS
Bernadette Hanlon, Ohio State University, United States

Following the mortgage crisis beginning in 2007-2008, many communities across the United States witnessed a significant increase in the number of foreclosed single-family homes with sometimes devastating effects. Most significantly were the negative impacts of increased foreclosure rates on property values and, related, housing vacancy across many communities. Despite these problems, there is, however, new evidence that the housing market began a modest recovery in 2011, and evaluating the federal response to the crisis in the form of the Neighborhood Stabilization Program, (NSP), findings suggest communities that received such funding experienced market improvements. Yet, there are substantial differences in the degree to which some neighborhoods have rebounded
from the housing crisis. According to new research based on the Atlanta region, predominately white middle- and upper-income communities have experienced a return from the more modest house price declines they experienced during the crisis while in comparison many black neighborhoods, even those that are middle-income, have seen little recovery in housing price appreciation in recent years. Housing market recovery has been uneven across communities.

In this paper, we determine the neighborhood level spatial variation in housing market recovery in the region of Cleveland Ohio, and identify the factors that result in these differences across different neighborhoods. We measure housing market recovery using information on sales prices, number of days houses for sale are on the market, and the extent to which foreclosed homes have switched to rental properties. Using spatial data, we examined the extent of recovery across a variety of neighborhood types (including inner cities, inner-ring suburbs, outer newer suburbs), and determined specific factors that led to recovery in some neighborhood types and not others. We found that single-family housing market recovery was far less likely to occur in modest income inner-ring suburbs, and that in fact many single-family homes in these neighborhoods switched from owner-occupation to rental units owned largely by small-time investors. This has had substantial destabilizing impacts on these neighborhoods.

SUB NATIONAL ECONOMIC GOVERNANCE IN ENGLAND THROUGH THE LENS OF ELITE THEORY. TOWARDS A CONCEPTUAL FRAMEWORK AND RESEARCH AGENDA
Paul Hayes, Leeds Beckett University, United Kingdom
David Devins, Leeds Beckett University, United Kingdom

Policy makers, academics and others have an increasing interest in delivering economic growth as a primary purpose of sub national governance arrangements. This has been reflected in England by the changing arrangements post 2010, in particular, the development of Local Economic Partnerships (LEPS) and the establishment of multi local authority Combined Authorities covering core English cities and their hinterlands. The national UK government is also seeking significant involvement from non-state actors, primarily from business in the delivery of its ambitions to improve productivity and economic performance. This paper will provide an overview of elite theory in relation to sub-national economic governance in the UK. In particular, it will explore the relevance of Wedel’s (2017) Flexnet Elite theory, that sees new patterns of elite formation and influence built around dense, self-propelling, informal (and, often, long time) trust networks that pursue common goals, coordinating their efforts inside and outside official structures. It will also explore Molotch’s Growth Machine hypothesis - ‘that a common interest in growth is the overriding commonality of important people in a given locale’. (Molotch, 1976: 310). The paper will propose a new conceptual framework to examine this in the context of UK devolution and propose a research agenda that includes investigation of elite power, construction and mobility within sub-national economic governance arrangements in England.

EVOLUTIONARY DYNAMICS OF LOCAL ECONOMIC STRUCTURES AFTER THE SECOND INDUSTRIAL REVOLUTION. INDUSTRY PATHS IN SWEDISH CITIES 1900-1965
Martin Henning, University of Gothenburg, Sweden

This paper combines case study evidence and quantitative data to investigate co-location of related industries and path dependent qualitative economic change in Swedish cities 1900-1965. We find that it is more likely that cities added related industries to their existing production portfolios after the Second Industrial Revolution than just any industries, and that industries that were less embedded in the industry structures of the cities were more likely to exit the region. Swedish cities were
characterized by some degree of coherence very early in the industrial era. The results provide historical evidence to the debate on industry paths in qualitative regional economic change.

**POLAND’S LOCAL INVESTMENT IN HUMAN CAPITAL WITHIN THE COHESION POLICY. CONFRONTING THE GOALS WITH THE OUTCOME**

Mikolaj Herbst, Centre for European Regional and Local Studies (EUROREG), University of Warsaw, Poland
Jakub Rok, University of Warsaw, EUROREG, Poland

Previous studies show that although cohesion policy is not very effective in supporting the economic convergence at the regional level in Europe, its impact may depend on the spending purpose, with investment in human capital being most effectual. The first goal of this work is to analyze the territorial distribution of the EU funds devoted to development of human capital in Poland. The secondary goal is to assess the extent to which this intervention contributed to the economic and social convergence at the level of Polish municipalities (NTS-5).

**DECENTRALISATION OF GROWTH POLICY TO THE LOCAL SCALE. EMPIRICAL STUDY OF CITIES AND TOWNS IN SWEDEN ABOUT THEIR STRATEGIC PLANNING INITIATIVES AND COLLABORATIVE GOVERNANCE**

Brita Hermelin, Linköping university, Sweden
Kristina Trygg, Linköping University, Sweden

This paper aims to conceive and analyse the decentralisation of growth policy and how it becomes institutionalised at the local scale. Ideals about place-based approach for growth policy and ideals of collaborative governance as a means to achieve local development make this decentralisation of growth policy warranted. The empirical material is about local authorities in Sweden. Since a century back, local authorities in Sweden have been the main political body for physical planning. More recently – and since around the 1980s – local authorities are expected to extend its planning approach to encompass strategic initiatives for growth policy. In Sweden the local authority is a political body as well as an substantial planning and management organisation. This paper presents empirical material from a questionnaire study and from interviews. Officials representing local authorities in Sweden are the respondents. The empirical study shows that all cities and towns in Sweden have engagements into local growth policy and that strategic development planning is mainstreamed across different sectors for policy and planning. The analysis of the empirical material identifies how local growth policy is challenged by dilemmas. These dilemmas refer to the uneven structure of local access to resources and divergent interests among partners for collaborative governance.

**INNOVATION IN SPAIN: FEWER INNOVATING FIRMS AND MORE GEOGRAPHICALLY CONCENTRATED**

Adelheid Holl, CCHS, Spain

Since the early 2000’s, the innovation panorama in Spain underwent important changes. In line with what has been observed for Germany (Rammer and Schubert, 2018), Spain too experienced a falling share of innovative firms already since the early 2000’s and like in Germany, this drop in the number of innovative firms is driven mainly by the retracting of SME’s and occasional innovators from innovation activities resulting in an increasing concentration of innovation in large firms. However, SME’s play an important role in innovation and their contributions to technological change and future growth have been emphasized for a long time. Thus, the withdrawal of SME’s from innovation raises important challenges for policy makers. Moreover, the decline in the number of firms engaged in
innovation since the early 2000’s has not been felt to the same extent in all regions. The results of this paper show that the increasing concentration of innovation in fewer and larger companies goes hand in hand with an increasing geographic concentration in innovation leading regions. Occasional innovators are considerably more likely to be located in innovation lagging regions. Thus, the retracting of occasional innovators from innovation activities has been particularly felt in these regions. In contrast, the regional innovation intensity measured by the three year lagged number of patents per inhabitants is significantly reducing the probability that a continuous innovator at the beginning of the period had abandoned innovation activities over the study period. Thus, innovation leading regions have resisted better the decline in innovation active firms.

IDENTIFYING AND MEASURING AGGLOMERATION EFFECTS
Gerald Holtham, Cardiff Metropolitan University, United Kingdom
Robert Huggins, Cardiff University, United Kingdom
Anwar Hossein, Bangladesh

The study uses the WCIR database of over 20 variables covering over 450 sub-state regions around the world. A subset of the database comprising some 260 regions in 32 of the more prosperous countries is used following cluster analysis. Two proxies for agglomeration are derived for each region: population of the largest city and population density for the region as a whole. Both are tested as explanatory variables in a cross-section regression with a composite measure of prosperity as the dependent variable. Results for both variables are significantly positive with overall population density quantitatively the more important.

PLACES SPECIALIZED AND SPATIALIZED
Andrea Hübner, Budapest Business School, Hungary

The reality and fictiousness of places have become highly studied in terms of city tours that follow a route of the plot of a film or a book.

Guided tours to show famous spots of blockbuster films or bestseller novels have widely become popular and screenshots tend to go viral in a minute.

These tendencies seem to rewrite everything we used to consider values in art, architecture, literature and culture in general and cultural tourism has started to mean new things in the interpretation of the urban space.

My interdisciplinary approach will rely on the latest theoretical analyses of social psychology, art history, memory studies and will be based on an extensive research in film location tourism and literature tourism in terms of perception, cognition, memory and appreciation.

"I KNEW SOMETHING ABOUT THE CITY": DESIGNERS’ MIGRATION INTO BRISTOL 1975-1985
Ellen Hughes, University of the West of England, United Kingdom

There is very limited understanding of the migration dynamics of creative workers in the UK, and little is know about why designers are attracted to live and work in the city of Bristol. Bristol has been identified as important for design, home to a large number of designers working across a wide range of sectors from illustration, film and TV, to architecture and engineering. Bristol is also hailed as one of the best places to live in the UK. Through an analysis of life story interviews with designers who
migrated to Bristol in the 1970s and 80s and have remained living or working in the city, this paper maps migration paths across the designers’ life spans and demonstrates how, for these long-term stayers, social and professional networks validate and support migration and occupation choices, and identifies the role of familial associations with place in location decisions over the life course.

**EVALUATING GREEN INFRASTRUCTURE AS PART OF SOUTH AFRICAN SPATIAL PLANNING EDUCATION**

Gezina Dorothea Huston, North-West University South Africa, Elizelle Juaneé Cilliers, North-West University South Africa, South Africa
Ockert Rudolf Pretorius, North-West University South Africa, South Africa

To facilitate environmental sustainability in urban and regional areas Green Infrastructure (GI) is gaining importance as an integral part of spatial planning approaches. The increased usage of GI calls into question the role of universities and tertiary institutions in including it as a core part of training programmes since it directly correlates with the successful transdisciplinary application of GI in the built environment both at local and regional levels.

In an attempt to define GI in terms of planning (in a South African and developing country context) and guide future training initiatives, linkages are identified between planning and transdisciplinarity, the importance of GI within planning is established, and the importance of transdisciplinary education approaches relating to both GI and planning is identified.

To build a case for transdisciplinary thinking in terms of GI and planning education the South African Council for Planners (SACPLAN) competencies and standards report guided the empirical research whereby the planning curricula of three purposefully selected planning schools in South Africa were evaluated to determine the extent of GI inclusion and level of transdisciplinarity in each programme. Quantitative research methods were applied to capture expert perspectives regarding the understanding, interpretation and application of GI, and the need for further education regarding GI among practising planners’. Recommendations were made to further enhance and integrate GI as part of transdisciplinary planning curricula that would ultimately contribute to the development and transformation of the planning profession by enhancing the role of universities in the urban and regional paradigm.

**SHARED AUTONOMOUS VEHICLES AND THEIR CONTRIBUTION TO IMPROVE RURAL PUBLIC TRANSPORT**

Sebastian Imhof, Lucerne University of Applied Sciences and Arts, Switzerland
Roger Sonderegger, Lucerne University of Applied Sciences and Arts, Switzerland
Widar von Arx, Lucerne University of Applied Sciences, Switzerland
Jonas Frölicher, Lucerne University of Applied Sciences and Arts, Switzerland

Rural areas offer good conditions for the operation of autonomous vehicles in public transport. Traffic congestion is low and traffic conditions are less complicated than in urban areas. An empirical analysis shows that the use of shared autonomous vehicles (SAV) in combination with existing mass transportation may improve public transportation in regions where current cost-efficiency of public transport is low. This research examines different service concepts and their economic and spatial implications. Data source for the research are business figures of the current public transport system as well as an overall traffic model of the examined research area. The here developed concepts differ in automation degree and the combination with existing commuter railways. On one hand, implementing new high-level services with SAVs can help rural regions to better connect regions to
urban areas and improve public services. On the other hand, the use of commuter railway prevents urban areas from traffic problems due to high spatial efficiency. As these concepts have shown to be cost-efficient, providing transportation services in rural regions becomes attractive for established or new transport companies. In these regions, new service concepts in public transport could change the modal split in favor of public transport due to improvements in travel time and shorter waiting times. The ownership of private cars may decrease due to attractive public transport and at the same time, rural regions may get attractive again as places of residency if access to urban areas improves.

**URBAN DENSITY CHANGE: A EUROPEAN PERSPECTIVE**

Chris Jacobs Crisioni, European Commission, Joint Research Centre, Italy
Carlo Lavalle, European Commission, Joint Research Centre, Italy
Claudia Baranzelli, European Commission, Joint Research Centre, Italy
Filipe Batista e Silva, European Commission, Joint Research Centre, Italy
Mert Kompil, European Commission, Joint Research Centre, Italy

Dense cities are expected to be more sustainable both environmentally and socially, and therefore dense urban development has long been promoted by European Commission (EC) policies. The LUISA group has long been generating insights and data on current and future local urban densities and the potential social and environmental benefits of dense urban development. This presentation will provide an overview of past and projected future urban density changes across Europe, and some indicators of social and environmental sustainability, given projected density changes. Furthermore, conditions found necessary for fostering urban densification will be discussed.

**FINANCIAL PERFORMANCE STUDIES OF UNIVERSITY SPIN-OFF COMPANIES (USOS) IN THE WEST MIDLANDS**

Peter Jelfs, Birkbeck University of London, United Kingdom
Helen Lawton Smith, Birkbeck, University of London, United Kingdom

Doubts remain over the true success of USOs in the UK, particularly those created outside the elite research universities. This paper examines the financial performance of USOs generated from universities with a range of research intensities from a single region, the West Midlands, and considers whether observations can be rationalised using the frameworks of signalling and agency theories.

While some results are in line with the expectations of the frameworks, others are not and demonstrate the complexity in attempting to explain the data, and the need to consider wider data sets and more explanatory factors.

Universities with a strong research pedigree generated the most USOs in line with the theoretical frameworks, with the Russell Group universities dominant in the region. The data relating to survival of USOs is more difficult to rationalise and leads to a tentative conclusion that this is not a useful performance metric. External funding appears to be in line with prior studies e.g. Shane (2004) and the theoretical frameworks in that the total funding obtained by a university is positively correlated to its research strength, although the Russell Group member Warwick shows an exceptionally high level of funding obtained. Finally, the data on exits demonstrates the inability of all universities across the region to generate financially successful exits. In fact, the only financially successful exit was by a USO that had no external funding, demonstrating a lack of commercialisable technology created across the region.
STRATEGIC APPROACHES TO VACANT HOUSES IN DENMARK
Jesper Ole Jensen, Danish Building Research Institute, Aalborg University, Denmark

Vacant houses have become an international phenomenon, which in many countries has called for political intervention. However, housing vacancy is very differently distributed across housing types and regions, and the degree to which the vacancy is defined as a problem varies across countries, therefore the issue has called for various political responses. This paper presents a case of vacant single-family houses in Denmark, which has become a central political issue in recent years. The vacancy is closely related to an increasing urbanization, and a changing demography in peripheral areas, especially in smaller towns and villages. Since 2010 various national programs for addressing this issue has been launched. The paper discusses how municipalities use these programs to address strategical and operational issues, including identification of vacant houses, negotiations with owners, financing the demolition and the subsequent use of the plot. From this, central challenges for managing vacancy in a more strategic way are identified.

“ACTIONS, NOT WORDS”: HELSINKI’S CITY BRAND AS A TOOL OF URBAN TRANSFORMATION
Salla Jokela, University of Helsinki, Finland

Local governments are increasingly applying principles of corporate branding to cities in order to manage spatial change, boost value creation, and adjust to “global” politico-economic changes. As city branding is becoming more popular, its definition is being extended beyond the promotion of cities to involve strategic practices and participatory processes through which cities are reinvented and developed. This is also the case in Helsinki, which recently introduced a new brand concept with the goal of ensuring that “in 2020, Helsinki is a city full of people, actions and encounters that make an impact.”

This paper examines the case of Helsinki to discuss the role of city branding in urban transformation. I conceptualize city branding as a “soft space” of governance and spatial planning, which supports the entrepreneurialization of the city through new forms of collaboration and the production flexible citizens, whose actions can be harnessed for the purpose of enhancing (inter)national competitiveness within global networks of cities. Thus, city branding becomes intertwined with a broader transformation from bureaucratic administration based on restrictions toward flexible urban management based on the empowerment of local communities.

My study raises interesting questions concerning role of city branding in urban transformation: Will the new understanding of city branding lead to profound changes in planning practices and related production of urban subjectivities? Or will the idea of branding as a tool of urban transformation turn out to be another way of representing the city as an attractive location in accordance with the knowledge-based economy?

EMPIRICAL ANALYSIS OF MOBILITY OF HIGH-EDUCATED WORKERS
Jaehyun Jung, Pusan National University, Korea, Republic of
Jinwoo Dong, Pusan National University, Korea, Republic of
Giseung Kim, Pusan National University, Korea, Republic of

Accumulating human capital of region is important for balanced regional development. In Republic of Korea, high-educated workers migrate to the Seoul-metropolitan area where they had expected to receive high wage. For this reason, the gap of accumulating human capital among regions in Korea has become to be more deepening. Using Graduates Occupational Mobility Survey (GOMS), we analyze
location decisions to Seoul-metropolitan area and its determinants. Young workers accumulated human capital from universities more prefer to migrate from the non-capital area to the Seoul-metropolitan area. Particularly, graduates from universities tend to outflow from the non-capital area to the Seoul-metropolitan area than those who graduated from the college of education or two-three-year colleges. In the aspect of the occupational mobility depending on university regions, workers graduated from universities in the Seoul-metropolitan area typically tend to stay and seek jobs in the Seoul-metropolitan area regardless of gender. While migration of women is less than men’s, women typically tend to move Seoul-metropolitan area for education. After migrated for their studies, they are significantly more likely to stay the Seoul-metropolitan area.

**APPLYING GROUNDED THEORY CONCEPT IN ANALYSIS OF UNIVERSITY - FIRM LINKAGES**
Feketene Czako Katalin, Széchenyi Istvan University, Hungary

The goal of the presentation is to present a paper in which grounded theory is applied for analyzing interactions between universities and local companies aimed to fulfil the third mission of universities. Author attend to apply the logic of grounded theory concept on the analysis of university-firm interactions in chosen European automotive centers’ cases (Germany, Great Britain, France, Hungary, Poland) and targets to reveal country specifics in order to define the different path of being an entrepreneurial university. Country based benchmarks can provide critical inputs to the theoretical and empirical related contribution in the topic of operation of the future of universities. In the first part of the presentation there is a short revisit of the related literature, then methodological discussion continues with representing empirical data and steps and phases of data analysis. Based on the logic of grounded theory building process there are two determined research categories of the paper – institutional relations and university-firm interactions. Connected to the categories, data hubs are represented from case studies (institutional relations - historical background; coordinative institutions; industry. University-firm linkages - service placement; types of services; differentiation from classical educational services.) Data with data analysis leads to consequences in topics of differences in university roles, strategies, sustainability of each partnerships and level of diversification in the industry. Contribution to the literature is summarized along these dimensions.

**DISRUPTIVE INNOVATION AND INEQUALITY: A LONG-RUN VIEW**
Thomas Kemeny, Queen Mary, University of London, United Kingdom
Sergio Petralia, London School of Economics, United Kingdom
Michael Storper, London School of Economics, United Kingdom

Over the last few decades, income inequality has risen in most high-wage economies. Aghion et al (2015), Breau et al (2014), and Lee & Rodriguez-Pose (2013) identify a robust correlation between inequality and innovation over this time scale in the US, Canada and Europe. Seeking to deepen our understanding of this stylized fact, this paper makes both theoretical and empirical contributions. On the theoretical front, it proposes a historical view of innovation in which periods are distinguished by the introduction of new, general-purpose technologies that initially disrupt the status quo, but eventually become it. Correspondingly, it proposes a wave-like pattern linking innovation and inequality. In an initial phase, the strongly place-based nature of disruptive innovations generates divergence in local wages, as innovators are rewarded with high returns. In a second phase, inequality becomes largely de-linked from these innovations, as constituent ideas become increasingly codified and geographically ubiquitous. Empirically, we scrape text in historical patent records, using routines to identify disruptive technologies and their geography. We link this to measures of wages inequality in the US at various spatial scales, between 1850 and 2010. This lengthy time period offers an
opportunity to test our theory, as we observe at least two disruptive technology shocks: electrification and information technology.

CORRIDOR POLITICS, REGIONAL IMAGINARIES: NEW SCALE OF ECONOMIC PLANNING IN THE TORONTO-WATERLOO INNOVATION CORRIDOR

Patrick Kilfoil, McGill University, Canada
David Wachsmuth, McGill University, Canada

Across North America, local governance actors are forming “megaregional” economic development partnerships. These activities are often carried out in the name of novel territorial configurations which several years prior would not have been recognized as places at all. In other words, the development of new regional planning initiatives has also been the development of new regional imaginaries. One significant new regional imaginary is the “Innovation Corridor” in Southwest Ontario. In the last five years, local development interests have begun to collaboratively market the Toronto-Waterloo corridor as a northern Silicon Valley. Informed by key-informant interviews, we investigate the dynamics of bottom-up economic development planning on a megaregional scale. We argue that novel regional imaginaries are driven by a constitutive tension between the region understood as the “real” space of economic activity, and the region as an ephemeral concept. Our results show that the Innovation Corridor is gaining recognition as an “actually existing” region, but whose precise parameters are deliberately vague. As a form of symbolic infrastructure it offers the possibility of strategic action at multiple spatial scales with respect to the labour market and access to capital. At the same time, local growth coalitions have also created new more traditional regional economic development agencies. The region is thus understood as a multi-scalar and dynamic reality rather than a given fact of geography. The key questions of what forms the region as a geographic construct, and who gets to partake in – and who is left out of – the region, remain unresolved issues.

GRADUATE START-UPS IN THE REGIONAL CONTEXTS—POLICY FAD OR A HIDDEN DRIVER?

Fumi Kitagawa, University of Edinburgh Business School, United Kingdom
Chiara Marzocchi, University of Manchester, United Kingdom
Mabel Sanchez-Barrioluengo, European Commission Joint Research Centre, Spain
Elvira Uyarra, University of Manchester, United Kingdom

Entrepreneurship is established as a major stimulant of economic and social transformation, and the role universities play in developing regional and national entrepreneurship environments have been attracting both policy and scholarly attention across the world. The complex relationships between the contexts, forms and processes of entrepreneurship and the regional development have been noted by a growing number of literature. Graduate start-ups are a relatively understudied vehicle of universities’ entrepreneurial impact, compared to academic spin-offs creation. Recently, a growing number of literature suggests that more consideration should be given to the scale, economic relevance and the range of stakeholders related to graduate entrepreneurship. Universities’ entrepreneurship activities may be path-dependent on their historical strengths, surrounding local conditions and national and sub-national policy environments. Universities can also make new strategies and shape new resources for entrepreneurship in response to the perceived challenges and expectations. Public policy initiatives affect local and regional entrepreneurial ecosystems in terms of infrastructure, support mechanisms and social networks.

Empirically, drawing on datasets including the Higher Education Business Community Interaction Survey (HEBCI) and regional (NUTS1) level variables, this study focuses on English HEIs portraying
universities’ entrepreneurial resources and outcomes of graduate entrepreneurship activities. Our findings show a large heterogeneity in graduate entrepreneurship in terms of both regional and organisational characteristics. We discuss hybrid and sometimes competing logics of universities, both positive and negative impacts of academic entrepreneurship, and possible intended and unintended policy consequences that affect graduate entrepreneurship in diverse contexts across regions.

THE DIFFERENTIATION IN ECONOMIC POLICY ON SUBNATIONAL LEVEL IN RUSSIA
Vladimir Klimanov, Institute for Public Finance Reform, Russia

Russia as a federal state forms its policy as at the federal level, as in 85 regions. The differences of them in terms of the main economic and social indicators reach dozens of times. Therefore, the subnational economic policies differ by several reasons. Among them, there is a geographical location, presence of natural resources, the history of region’s development, industrial specialization, the degree of fiscal dependence from the Federation, the regional traditions and institutions. Economic specialization of Russia’s regions is from agrarian to tertiary. The distribution of natural resources is also uneven. 90 per cent of natural gas (the first item in Russia’s export) and 60 per cent of oil are extracted in the biggest region in an industry. The share of federal grants in subnational budget revenues varies from five to more than 90 per cent. In Russia, there are several regions with the presence of national minorities and hard traditions of paternalism.

Such situation forms different economic policy, which is more focused on the implementation of the top-down approach and does not take into account the individual characteristics of the regions. That can increase or decrease regional resilience.

Different models of economic policy on subnational level in Russia are analyzed in the paper prepared with the support of RFBR according to the research project No.18-010-00771. The database consists of hundreds of cases related to governor’s elections, economic activities, intergovernmental grants, and strategic plans for economic and social development, etc.

SPATIAL ANALYSIS OF RESIDENTIAL DEVELOPMENT PROCESSES: UNCOVERING THE DUTCH DENSIFICATION POTENTIAL
Eric Koomen, SPINlab, Vrije Universiteit Amsterdam, The Netherlands
Jip Claassens, SPINlab, Vrije Universiteit Amsterdam, The Netherlands

Urban areas are rapidly transforming. This is particularly true in the Netherlands where residential development is continuing to claim agricultural land alongside with transforming vacant industrial buildings or filling under-used sites. How to steer future urban development is the topic of heated debates and especially the potential of urban transformations to accommodate the projected growth in housing stock is questioned.

We study the feasibility of further intensification with a spatial analysis approach that distinguishes different residential development processes and quantifies their relative importance. Using highly detailed cadastral data related to location, age and function of all individual buildings in the country, we differentiate between processes such as: densification of residential neighbourhoods, transformation of brownfields and greyfields and green field redevelopment.

Our results indicate that just over half of the total net increase of around 1 million residences in the past 17 years took place within the existing urban fabric. Only a small proportion of the total increase (5.5%) was placed on former green areas within cities, whereas densification of existing residential
areas and transformation accommodated 25% and 21% of the increase respectively. Using binomial logistic regression techniques, we assess the importance of a range of different drivers for this process. The results suggest that there is still substantial scope for further intensification in the coming decades when another million or so new residences have to be constructed.

MAP OF DYNAMICS OF CHANGES OF CIITES AND NEIGHBOURING COMMUNES
Cezary Kowalczzyk, University of Warmia and Mazury in Olsztyn, Poland
Krystyna Kurek, University of Warmia and Mazury in Olsztyn, Poland

The analysis was based on the assumption that dwellings constitute the largest part of a city, and that they are most susceptible to change. An observer examining the city from within will note that a critical level has been reached (an observer positioned in a rural area will report a decrease in the surface tension of the urban/rural boundary). In consequence, progressing residential development in areas adjacent to the city contributes to urban sprawl. In view of the above, a research hypothesis was proposed that residential area per capita is the most robust indicator of economic and spatial changes in an urban area.

FIRM-LEVEL CLUSTERING IN GERMANY - EVIDENCE FROM A DISTANCE-BASED INDEX
Astrid Krenz, Durham University, United Kingdom

This study analyzes the regional clustering of manufacturing firms in the German economy using a distance-based firm-level cluster index. We programmed the index based on the method of Scholl and Brenner (2016). The index calculates the distance between firms given the travel time from one firm to another and thus offers a more reliable measure of firm clustering which is not dependent on the choice of the scale of a region and thus circumvents the MAUP. For the analyses a novel and comprehensive firm-level dataset from the German Statistical Offices is used. The dataset has been further programmed by the author to incorporate detailed information about the latitude and longitude of the firm’s location in the German economy for the first time. The results reveal changing patterns of clustering across sectors in the German economy over time. We detect among others the localization of regional hubs of the automobile sector. The analyses provide for the first time a comprehensive overview about regional hubs of German firm clustering across sectors and demonstrate their development over time. Important information is thus gathered about regional growth drivers and the regional development potential.

DISSECTING THE URBAN(IZED) BINOCULARS. FROM DECONSTRUCTING TO RECONSTRUCTING AND REALIZING URBAN FUTURES
Arnoud Lagendijk, Radboud University Nijmegen, The Netherlands
Robbert van Driessche, Radboud University, The Netherlands
Peter Ache, Radboud University, The Netherlands

This paper elaborates a theoretical-conceptual framework to analyze the reciprocal relationship between the ideational and material dimensions of urban futures and urban ‘futuring’, or, taking these two together, of urban ‘futures-in-the-making’ (after Groves, 2016; Adam & Groves, 2007). Our society’s future is vividly portrayed through primarily urban images, which do not simply remain ideational or imaginary, but become embedded within the materiality and practices of the city. There is a concern, however, that much of this echoes neoliberal pragmatism, while alternative and utopian future perspectives are lacking or slow to develop. The analytical inquiry may focus, therefore, on the construction and circulation of urban futures, as well as the performative effects that they have on
urban practice and materiality (and vice versa). This means that we should not only ‘look into’ the urban future, but also ‘look at’ the urban futures at play within the practices and discourses of urban development and urban planning.

The framework to ‘look at’ futures principally draws upon three sources: the critical futures approach as described by Inayatullah (1990), the Sociology of Expectations (a.o. Borup et al, 2006; van Lente, 2012), and the Sociology of the Future as outlined by Adam and Groves (Adam, 2005; Adam & Groves, 2007; Groves, 2016). The framework focuses on how urban futures can actually become performative in realizing those challenging visions in the present. This is based on the analysis of the construction, circulation, and performativity of urban futures, which can help to clarify the roles and workings of the future within urban planning in the present. Attention is directed to the discursive and rhetorical construction of the level, content, modality, and form of futures, as well as to the discursive and rhetorical construction of prospective structures, (future) scripts, common agendas, and protected spaces (a.o. van Lente & Rip, 1998). Moreover, and importantly, attention is also paid to the “more than human” (Groves, 2016, p. 2) and more material, unconscious, and implicit aspects and elements of urban futuring/anticipation (e.g. scripts inscribed into technologies and practices for e.g. backcasting or forecasting) (Groves, 2016; also Borup et al, 2006, p. 292).

The framework is applied to the case of Rotterdam, which is in the processes of developing the statutory integral spatial plan (‘Omgevingsvisie’). The purpose of the ‘Omgevingsvisie’ is to encompass and transcend all sector and domains affecting local spatial and environmental, substituting for plans and policies developed so far, embracing a city-wide discussions on Rotterdam’s future. The paper will report on the initial findings of a future-framing analysis of a corpus of underlying policy documents and actual preparatory documentation on the ‘Omgevingsvisie’ and shed light on the stakeholder involvement in the planning process.

REGIONALISM AND INSTITUTIONAL COMPETITIVENESS
Peter Wilgaard Larsen, Aalborg University, Denmark

Ever since its institutionalization across Europe through regional development agencies, regionalism has increasingly been confronted with localism, manifested through local development agencies, city-regions, business regions etc. The competition between these institutional elements of regionalism and localism have, throughout the years, resulted in inadequate regional development systems unable to fully exploit the opportunities and target the challenges generated by globalization in a region. By defining regionalism as a process of institutionalization that engages actors to create institutional elements, cooperate and coordinate policies on the intermediate level, and by operationalizing this definition into a five-stage institutionalization model, a national regional development system is analysed through historic and contemporary regional policy documents and qualitative interviews with local and regional development actors. This paper shows how local and regional development actors have broken the deadlock of inter-institutional competition between regionalism and localism, and thus have obtained institutional competitiveness outlining a viable path of regionalism.

THE PSYCHOLOGICAL COST OF LOCAL ECONOMIC DECLINE: EVIDENCE FROM NHS ANTIDEPRESSANT PRESCRIPTIONS
Neil Lee, London School of Economics, United Kingdom

Between 2010 and 2016, the number of antidepressant prescriptions in England and Wales increased by almost 50%. This change was highly geographically uneven, leading to speculation about its causes. Three explanations have been prominent: increases in precarious or low paid employment, the
shrinking state, or economic decline more generally. This paper investigates the geography of increased antidepressant use in England and Wales between 2010 and 2017, using unique NHS data on all prescriptions offered by GP surgeries and a series of panel data models. We show that growing antidepressant use was highest in areas where benefits reform met a lack of high-quality employment opportunities.

ENVISIONING REGIONAL FUTURES: AN INTERACTIVE GOVERNANCE PERSPECTIVE FOR REGIONAL SPATIAL PLANNING
Valeria Lingua, University of Florence, Italy

The focus of this contribution is to address the role of designing and visioning in the formation of regional territorial governance and spatial planning. It aims at an increased understanding of how regional planning practices, engaged with the imagination of possible futures, support the creation of institutional capacity for both statutory and strategic spatial planning in contexts of governance rescaling. The reflection is grounded on recent Western European debates regarding the emergence of widespread neo-liberalism, which has conveyed to processes of State space rescaling (Brenner, 2004) and a strong affirmation of localism. Despite divergences as regards the latter’s impact on planning across Europe, there is a clear tendency towards the rescaling of planning systems in association with government reduction alongside the emergence of soft planning spaces with fuzzy boundaries (Allmendinger et al., 2015). These propensities occur in contexts of meta-governance, wherein governments expect local planning authorities to undertake partnerships to work jointly on strategic planning issues.

Against this backdrop, the regional level is the most challenged amidst a scenario wherein every level between the national and the local are up for scrutiny (Waterhout et al., 2013). In light of the ‘regional awakening’ in the realm of regional studies, increasing and variegated reforms of planning systems and instruments incentivise planning practices across local boundaries. These dynamics put into question the concept of “region” and affect the interaction among institutional and soft planning spaces. The ‘spatial visioning’ revival for both institutional and non-statutory areas is thus based, on the one hand, on the legitimacy of informal strategic planning with respect to statutory planning (Mäntysalo et al. 2015) and, on the other, on the strategic role of spatial planning (Galland & Elinbaum 2015) where the character of regional plans is strategically envisaged to open possibilities for discretion, imagination and guidance to statutory local master plans that oftentimes comprise the cornerstones of spatial planning systems.

The contribution approaches these issues by using the conceptual framework of interactive governance (Torfing et al. 2012) to explore the nexus among hierarchical and co-operative forms of governance (see Fig. 1). Spatial visions and visualisation are expected to affect and influence planning processes in these governance contexts, moving respectively within the frame of meta-governance or negotiation practices. Scalar shifts and differences in visualisation (Fig. 2) bring into light the reciprocal influences among statutory and soft planning spaces by providing for new spatial imaginaries. At the same time, images and visions challenge the nature and form of regional planning instruments while dealing with regional futures, by both shaping the boundaries of the region (conciliating regional dynamics and spatial imaginaries), and conceiving a shared vision of regional development, moving from a-spatial development strategies to the multilevel articulation of spatial planning strategies. It is via the recognition of spatial dynamics in regional contexts that visualisation holds the potential to improve spatial imaginaries (Davoudi, 2018) and enhance the use and implementation of spatial planning concepts (Balz, 2017). Visioning and scenario making thereby play an important role in interactive governance processes, by defining the extension and nature of problems and possible solutions. As both statutory and soft planning spaces are challenged by processes of governance and
planning rescaling, the above interactive processes enable opportunities for both institutionalising informal cooperative planning practices and enhancing the strategic nature of statutory regional spatial plans.

**RECONCILING CORRIDOR REGIONS AND CONCENTRIC GREEN BELT POLICY**

Alan Mace, London School of Economics, United Kingdom
Alessandra Mossa, London School of Economics, United Kingdom

The contribution of the paper is to highlight conflict at the interface between more fluid ‘post-modern’ regional planning arrangements, including emerging partnerships and the modernist planning tradition; it is shown that the latter is poorly adapted to the former. To achieve this the paper draws on empirical research looking at the development of the London-Stansted-Cambridge corridor in South East England where multiple actors have come together in more, or less, formal arrangements beyond jurisdictions. However, if emerging and contemporary forms of regional planning are characterised by fluidity, in the corridor the green belt is a key example of an earlier and inflexible form of regional planning determined by central government. We argue that without a new approach to green belt, the outcome for the corridor will be sub-optimal as development will go where it can rather than where it might be best placed. Examples of this trade-off include restrictions on development near to existing and new railway infrastructure where this is close to green belt land. Another established consequence of green belt policy is longer commutes by road and rail as housing cannot always be built near to cities where there are concentrations of employment. We propose that, in the case of green belt, central government should reappraise its modernist approach by devolving decisions down so as to permit multiple local-authority partnerships in corridors to remodel the extent and/or location and/or purpose of green belt to suit better planning for corridor regions.

**MAKING SENSE OF THE NORTHERN POWERHOUSE**

Danny MacKinnon, CURDS, Newcastle University, United Kingdom

Since its Manchester launch in June 2014, the Conservative’s Northern Powerhouse initiative has proved politically influential in framing the policy debate on regional development in England. Couched in the entrepreneurial language of cities and regions as growth machines, the proliferation of these labels reflects regional actors’ efforts to gain central state recognition and finance in a climate of fiscal austerity. In particular, the Northern Powerhouse (NPh) seeks to pool the strengths of Northern city-regions to mobilise a pan-regional brand identity in order to compete in international markets. Despite the increasing focus on agglomeration economies and infrastructure investment in London and the South East over the past decade, the NPh initiative is testament to the fact that regional inequalities in England remain a political problem for the national state, generating pressures for politicians to respond. The NPh represents an important political response to the political problem of regional inequality, framed by the broader spatial rebalancing discourse developed by the Coalition Government. The paper argues that the NPh is principally a powerful spatial economic narrative that constructs the North as an economically under-performing and neglected region in need of transformation through concentrated investment in infrastructure, innovation and skills and devolution to its principal city-regions. While its subsequent development has been undermined by a reduced level of government commitment, the power of the NPh narrative is evident in its widespread adoption and use by regional actors and institutions.
The role of universities in the regional developing has become an important focus of scholars in the field of innovation and technology policy. Multiple arguments suggest that universities contribute to the socio-economic development of the city directly and indirectly (Harrison & Turok, 2017). Directly, universities supplied knowledge resources such as human capital and patented technology, which builds regional capacity and the city development. Indirectly, universities as intermediaries offer symbolic values as well as substantive values to attract other resources for the city development. For instance, universities train a workforce for the future innovation of the city, they create knowledge for foreign and domestic enterprises, and they highlight the absorptive capacity of the city. Therefore, universities enhance the absorptive capacity of the city through direct contribution and they moderate the link between resources and the city development through indirect contribution.

However, the current research on the city development shows disintegrated patches of literature on the role of the universities and the scope of the city development. Some prior studies argued that the foreign direct investment FDI contributes to the city development (Wang, Ning, Li, & Prevezer, 2016; Zhao & Zhang, 2007). Others suggest that the entrepreneurial state’s infrastructural development contributes to the city development (Wang et al., 2016; Wei & Lu, 2009). A third perspective posits that the city’s absorptive capacity enhances the city development. For instance, the size and development of the region attract the other resources to the region. Individually, these and several other arguments offer valid reasons. However, their dispersed assumptions take one or other aspects of the university contribution. Although these perspectives make the university a lead or lag variable, they lack a focus and fall short of offering a comprehensive argument to explain the role of universities in the city development.

The current study focuses on the role of the university in the city development by exploring the ICT (information and communication technologies) sector-specific advancement in the innovation of the city. In so doing, this study addresses the university’s salience as a moderator of the input factors for the ICT sector development in the city in China. The context of China offers a rich research setting because the universities, regions and the role of the state interactively advance the regional and city developments. The city-specific university salience in China rests on two forms: the university reputation salience and its diversity salience. Whereas the university’s reputation salience captures its ranking on the scale, there the diversity salience captures its variety in the city. The reputation and diversity saliences independently moderate the development factors captured in the literature. Among other contributors, five contributors appear in various literature on regional studies.

The first contributor draws on the FDI inflow the related firm’s entries and the capital investment. The second contributor draws on the enterprise’s orientation, one comprising private enterprises and the other comprising state-own enterprises. The third contributor draws on the education level in the city, referring to the level of education and the diversity of education. The fourth contributor refers to the type of knowledge, divided into tacit knowledge of people or patented knowledge. The fifth contributor divides into the managerial resources and human resource. These five contributors and their respective dimensions interact with two types of university salience, and they contribute to the city development through the ICT sector.

The development of the ICT sector signals innovation in the city in multiple ways. It creates information, knowledge, new products, economic and social development, and mobilises resources for effective and efficient processes at all level of organisations. To develop the ICT variable as a proxy for the city development, I rely on the data in the public domain, and I formulate a composite variable
comprising firms, investments, employees and four other related inputs. Based on the factorised variable, the city innovation in the ICT sector reflects a reliable and useful proxy for the main proposition that universities moderate the contributor to the city’s innovation.

Based on 391 universities in the city, which moderate five alternative sources of contributors to the sectoral innovation (ICT) in the city innovation in China, I draw the moderating role of the universities: (i) the FDI, (ii) domestic enterprises, (iii) education level, (iv) knowledge type, and (v) human resource. Based on the two university moderates, I proposed the following hypotheses and found some support in a preliminary analysis1.

- Hypothesis (H1): (a) The university diversity will moderate the flow of foreign firms into the high technology sector in the city; (b) the university ranking will moderate the flow of foreign capital investment in the high technology sector in the city
- Hypothesis (H2): (a) The university diversity will moderate the flow of private enterprises in the high technology sector in the city; (b) the university ranking will moderate the flow of state-owned enterprises in the high technology sector in the city
- Hypothesis (H3): (a) The university diversity will moderate the flow of undergraduate education level for the high technology sector in the city; (b) the university ranking will moderate the flow of postgraduate education level for the high technology sector in the city
- Hypothesis (H4): (a) The university diversity will moderate the flow of tacit knowledge of the scientific personnel for the high technology sector in the city; (b) the university ranking will moderate the flow of patented knowledge for the high technology sector in the city
- Hypothesis (H5): (a) The university diversity will moderate the flow of human capital in the high technology sector in the city; (b) the university ranking will moderate the flow of managerial resource in the high technology sector in the city

In summary, a large city of data on Chinese cities and top 391 universities indicates that the university diversity matters in developing the entrepreneurial activity because it attracts enterprises (foreign and domestic) and offers knowledge resources. The university ranking directs the financial resources from the foreign and state-owned enterprises to produce codified knowledge in patents.

DEVELOPING NEW VOCABULARY FOR COLLECTIVE PLACE-MAKING IN CHANGING WORLDS

Anu Manickam, Hanze University of Applied Sciences, The Netherlands

This paper presents an analytical and intervention model that introduces new vocabulary to explore, describe and build collective futures through shared understanding of complexities facing local and regional. This new vocabulary builds on evolutionary and complexity approaches applied to regional studies and is captured as a whole systems approach capturing interconnected dynamics of regional and contextual developments. The vocabulary and the model were developed through a systematic study of regional innovation systems and evolutionary economic geography as well as broader cluster studies and the application of complex adaptive systems approach. The model was applied to a series of case studies that offered enhanced insights into systemic developments of clusters facing increasing complexity in their contexts. The new framework allows systemic mapping of local and regional developments by capturing interconnected developments through stakeholder perceptions of changing dynamics and relevant secondary data. The introduction of new perceptions and vocabulary to describe new complexities of local clusters and regions allows new dialogue and collective sense making processes to take place that help stakeholders, including policy makers, in their search for new place-making and place-shaping strategies. The paper will present examples of case studies from the Dutch Energy Valley, Karlstad’s Paper and Pulp Industry in Sweden and Silicon Valley to illustrate the insights gained from the use of complexity approaches and its vocabularies for regional study.
Many researches explain the importance of the territorial dimension to analyze labor phenomena. When the territorial dimension is considered it is used, in the case of Spain, levels that correspond to the Autonomous Communities or the provinces. But these levels are very large units and turn out to be unreal markets because a market is a meeting place between employer and job seeker and probably the internal cohesion of these markets is small. The normal thing would be to use the municipal level. However, municipalities are administrative constructions that probably do not reflect the functional reality of the labor market; it is questionable that they are genuine local labor markets. The use of functional regions can provide additional and useful information for the analysis between employment and territory. The predominant concept in the definition of functional regions is that local labor market. Local Labor Markets (LLMs) are functional areas, in which the majority of workers reside and work within it.

To analyze the coherence of functional or administrative areas, techniques proposed in the scientific literature are presented: Analysis of Variance (ANOVA), the Theil index; the method of Cörvers, Hensens and Bogaerts; the spatial exploratory analysis; and the Ellison-Glaeser index and Maurel-Sédillot index. These techniques allow obtaining interesting results that serve to know more about the Spanish labor market in relevant territorial areas and to test the suitability of the territorial areas, always conditioned, of course, by the territory, the delimitation practiced and the evaluation method.

Japan’s Local government system is two-layer system, which is formed by prefecture and municipality (city, town and village).

Recent declining of population has deprived various power (economic, social, cultural etc.) of municipalities which have less size, therefore, collaboration between core-city and small sized neighborhood municipalities becomes more important.

Last decade, several systems of collaboration among municipalities in Japan have been established, one of which is Collaborative Core City-Region (CCCR). In CCCR, large core-city and neighborhood municipalities achieve economic development, and higher level of city function and quality of life through compactifying a core-city and connecting between it and neighborhoods by traffic network. Characteristics of CCCR are 1) producing and sharing a vision among participating municipalities and 2) more flexible cooperative system among municipalities than ever before, by which participating municipalities can make the vision and subsequent programmes effective.

This paper evaluates CCCR by applying the framework of strategic planning evaluation, which has been studied mainly in Europe, to Bingo region as a case of that.

Especially, I evaluate how strategic the vision is, focusing on the following points; 1) performance of the strategy based on DPM(Dutch Performance Modell), 2) relational outcome based on collaborative planning model by Albrechts and 3) governance innovation.
This analysis may be a starting point of discussion about whether collaborative strategy among municipalities in Japan is truly strategic.

**EUROPE'S INNOVATION VOUCHER SCHEMES: WHAT MAKES THEM SUCCESSFUL AND FOR WHOM?**  
Christopher McInnes, European Association of Development Agencies (EURADA), Belgium  
Elżbieta Książek, Adam Mickiewicz University Foundation, Poznan Science and Technology Park (PPNT), Poland  
Esteban Pelayo, European Association of Development Agencies (EURADA), Belgium  
Nathalie Boulanger, DEV'UP Centre-Val de Loire, France  

European small and medium sized enterprises (SMEs) operate in a world of change. Consequently, SMEs need to adapt through innovation and they can be encouraged by public direct investment, in particular an innovation voucher scheme. Voucher schemes help SME innovation and regional development: they enable SMEs to access knowledge providers in a simple way fostering innovation and economic activity creating innovation and jobs with comparatively low levels of public investment; and they act as a wedge for regional development practitioners to establish a working relationship between the SME and the developer for the future provision of support services. As a result, practitioners in regional development have deployed voucher schemes since the end of the 1990s but their impact is understudied (Valbonesi and Biagi, 2016) and fits into academic and policymaking contexts whose literature on the impact of public investment support for research, development and innovation is varied and wide (Petrin, 2018). This paper provides an overview of innovation voucher schemes in Europe with a view to offering an empirical study, which includes practitioners’ observations from other EU regions, and analysis of voucher schemes as an impactful public investment. Most notably, Wielkopolska Region, leading a European Union project in the field of SME support services and working to develop a voucher scheme, is presented as a case study. Additionally, an empirical study of existing schemes (Scotland, Tampere, Luxembourg, Northern Ireland, and Murcia) is undertaken.

**COHESION POLICY EFFECTS ON INVESTMENT AT THE EXTENSIVE AND THE INTENSIVE MARGIN**  
Vassilis Monastiriotis, London School of Economics, United Kingdom  
Riccardo Crescenzi, London School of Economics, United Kingdom  
Ugo Fratesi, Politecnico di Milan, Italy  

We examine the impact of Cohesion Policy expenditures on regional investment, along two types of effects. First, the ability of Cohesion Policy to mobilise regional private investment, i.e., to raise gross fixed capital formation at the regional level. We label this as the ‘extensive margin’ of the effects of Cohesion Policy on regional investment, as it concerns the magnitude of such investments. Second, the contribution of Cohesion Policy to raising the productivity of capital – measured as the elasticity of output growth to private investment (‘intensive margin’). To examine these, we estimate separate models for investment (capital formation equation) and output growth (production function, augmented to include Cohesion Policy expenditures in the capital-share parameter) across the population of NUTS2 regions of the EU27 (excluding Croatia) for the two programming periods of 2000-2006 and 2007-2013 using annual data from the European Commission’s Structural Funds database. We complement this analysis with an application of the standard Oaxaca-Blinder decomposition technique, implemented here on an extensive-form growth equation which is estimated separately between two groups of ‘treated’ and ‘non-treated’ regions.
AGGLOMERATION EXTERNALITIES AND OFFER OF ON-THE-JOB TRAINING: EVIDENCE FROM FRANCE

Yoann Morin, CESAEER, France
Lionel Védrine, CESAEER, France

Previous literature on training and agglomeration economies have interpreted the negative effect of employment density on the access to training as an evidence of poaching effects prevailing over pooling effects. However, the consensus on previous studies of the empirics of agglomeration economies is to consider employment density as a proxy for all agglomeration economies. If we decompose them in sharing, matching and learning, then pooling is only a part of sharing economies. As such, previous studies have neglected a huge part of agglomeration economies when interpreting its effects on training. Because identifying each type of agglomeration effect is still a complicated work to undertake, we instead propose a methodology to identify poaching effects. If the coefficient associated with employment density is still negative when controlling for poaching, then the negative effect of agglomeration on training need to be interpreted differently than is has been done in previous works. In the case of training, poaching effects occurs when employees who were trained by their employer are poached by other firms because they can offer higher wages by not having to pay for the training. Thus, our identification strategy is based on the construction of an indicator of the turn-over in each firm. To study this, we use data on french firms: our data contains informations about individual characteristics of firms, but also about each of their employees. Using the informations about their employees, we construct our indicator of the turn-over. Our preliminary results show that when we control for the turn-over, the effect of employment density is still negative and significant, so we suggest a new interpretation of the effects of agglomeration on training.

ENABLERS OF STRUCTURAL CHANGE: THE ROLE OF THE ENTREPRENEURIAL REGION DURING TECHNOLOGICAL TRANSITION

Arnault Morisson, Mediterranean University of Reggio Calabria, Italy
Eva Panetti, Parthenope University of Naples, Italy

During a period of technological transition, the techno-economic structure and enablers of structural change are temporarily decoupled due to the relative inertia of the social, organizational, and institutional structures compared to rapid changes in the techno-economic structure. The lag in co-evolution between enablers of structural changes and the techno-economic structure generates inefficiencies and instabilities in the regional innovation system. This article explores the strategies implemented by the entrepreneurial regional government, using the case of Ruta N in Medellin, Colombia, in affecting enablers of structural changes during a phase of regional technological transition. In peripheral regions in which the social, organizational, and institutional structures have not yet fully co-evolved with the techno-economic structure, the entrepreneurial region can affect the evolution of enablers of structural change by learning from regions at the technological frontier that have already further evolved and have fitter enablers of structural change with the latest techno-economic paradigm.

A NEW VISION FOR REGIONAL INVESTMENT POLICY IN RUSSIA: PPP (P3S) PERFORMANCE IN MANUFACTURING

Natalia Moskvitina, Institute of Applied Economic Research of RANEPA, Russia

Russia’s regions have faced economic instability, growing fiscal deficit and distrust from private investors because of sanctions since 2014. The study shows that in the prevailing conditions the traditional mechanisms of regional investment stopped working. Russian regions faced the challenges of import substitution and a reduction of spending. Russian regional investment policy
responded to these challenges - short-term support programs were replaced by comprehensive mechanisms establishing long-term partnership between the public and private investment.

Mechanisms based on PPP frameworks not only in building infrastructure but also in manufacturing were introduced: special investment contracts (such as guarantees for stable conditions and packages of support measures), concession agreements with an obligation to localize production (currently beings tested in Moscow in terms of the Smart city); government procurement contracts in exchange for investments (prototype of offset contracts).

The study shows the positive effect of the mechanisms on the development of regional economies. They help to attract private investments in manufacturing and to reduce budget spending in the regions. A comprehensive assessment showed the mechanisms have become integrators of existing territorial and sectoral support measures in the regions and opened up new opportunities for industrial cooperation and technology transfer.

The pros and cons of one of the mechanisms and the formats of the further replication of this practice across the regions of Russia and abroad are considered in the example of the construction of a modern pharmaceutical factory in the SEZ Technopolis Moscow under the Moscow City Government’s procurement contract.

REVITALISING UKRAINIAN CITIES THROUGH MOBILISING COMMUNITIES
Olga Mrinska, European Bank for Reconstruction and Development, United Kingdom

In the countries with low degree of trust in government institutions but high demand for change the role of civil society and social enterprises/not-for-profit companies is significant. It is often compensatory for the dysfunctional public services. It is particularly visible in the cities and towns where mobilisation of communities and resources is easier to achieve due to the availability of infrastructure; proliferation of democratic non-political platforms; higher access to financial services (including crowdfunding platforms); and greater knowledge/interest in social innovations. Urban communities form potentially powerful, although yet insignificant, opposition to stakeholders who control the hybrid of private and public assets through corrupt schemes and non-transparent decision-making procedures.

Over the last five years, Ukraine has experienced a dramatic rise in public interest towards enhancing the liveability and economic competitiveness of its cities and towns. A large number of initiatives are creating urban spaces that deliver a wide range of local services and contribute to the new economic model driven by services. The role of public institutions is rarely essential, and in many cases the progress is achieves in spite rather than thanks to the support from local and municipal governments. This paper explores a number of cases from capital city of Kyiv and several large cities of Ukraine where large urban regeneration projects are driven by community groups and social entrepreneurs that use diverse range of core assets (industrial, cultural, recreational etc), technological solutions and communication channels to achieve developmental goals.
STRESS-TESTING STATE RESCALING AS A THEORY FOR UNDERSTANDING URBAN AND REGIONAL CHANGE AND DEVELOPMENT
Vlad Mykhnenko, University of Oxford, United Kingdom
Manuel Wolff, Helmholtz-Centre for Environmental Research - UfZ, Germany

This presentation critically engages with State/Space theory by interrogating the soundness of its fundamental assumptions regarding the rescaling of capitalism and by questioning the validity of its proposition about ever-rising spatial imbalances and economic divergence in post-1970s’ Europe. By employing descriptive, cartographic and econometric analysis of the regional and urban growth data covering 28 EU countries and 11 major OECD and BRICS economies, it develops a set of alternative explanations to account for the uncovered European economic convergence trends.

STUDENTS’ MOBILITIES AND SPATIAL CAPITAL: A (MISSING) LINK BETWEEN REGIONAL AIRPORT AND LOCAL UNIVERSITIES (THE CASE OF NORTH EAST OF ENGLAND, UK)
Alena Myshko, Gran Sasso Science Institute (GSSI), Italy

This paper presents an investigation in a missing link between regional airport(s) and local higher education (HE) sector in a region, and how universities could benefit from airports’ development. Moreover, it focuses on how this link, in turn, can influence students’ mobilities and spatial capital. It is an attempt to include in the theoretical domain of airport studies a category of passengers/consumers, who are out of its focus in the recent research - students, who have specific practices, preferences and interests in travelling. Students, both undergraduate and postgraduate, of HE institutions are understood as a social group with high mobility: they travel to places of former residency, also for education and research purposes as well as for tourism. At the same time, this social group is one of the main consumers of city’s services and spaces, also transformers and gentrifiers of its space, especially in the university towns. Thus, not only ‘access to urban resources’ but also accessibility, mobility and accumulation of spatial capital constitute the right to the city, including rights of those students’ who are currently residing in the city region. Spatial dimension depends on transport provision, its connectivity and accessibility to turn it into a spatial form of social capital (e.g., Levy, 1994). The link is perceived important to relate global competitiveness and local engagement of universities as it provides, on the one hand, access to global networks and markets, and, on the other hand, a closer ties to another significant regional actor and asset.

SOCIAL INCLUSION FROM MIGRANTS AND INCOME INEQUALITY: AN EMPIRICAL ANALYSIS ON EUROPEAN COUNTRIES
Amjad Naveed, Aarhus University, Denmark
Cong Wang, Bond University, Australia

This study examines how the social inclusion from migration flow affects income inequality in European Countries. In the literature, many researchers have analysed the implications of social inclusion and integration for income inequality and claimed that it increases income inequality (Kosonen 1995; Boje, van Steenbergen, and Walby 1999) while alternative view is that social inclusion increases integration which ultimately reduces income inequality (Moses 1995). However, there is lack of evidences whether the impact of social inclusion from EU and non-EU nationals is different on income inequality. Therefore, the focus of current study is to analyse the impact of social inclusion of migrants flow (from EU and non-EU) on income inequality. The main hypothesis is to test whether the social inclusion from different types of migration flow reduces income inequality. For empirical analysis, we use the data for EU 28 countries (from Eurostat) over the period 2003-2015. The dependent variable is the Gini coefficient (measure of income inequality) and main explanatory
variable is social inclusion (SI) with three dimensions: SI-EU, SI-nonEU and SI-total. The measure of social inclusion is constructed by using four sub-indicators according to Eurostat definition (i.e., severe material deprivation rate, housing cost overburden rate, tenant versus owner, overcrowding rate—% of total population aged 18 and over—except reporting country). We estimate a panel data model (GMM estimator), controlling for social inclusion, savings rate, arable land rate and age-dependency ratio. Our results indicate that there is significant negative relation between social inclusion and income inequality. In particular, we find that social inclusion from non-EU migrants has much stronger effect on reducing income inequality compare to EU migrants flow. However, the effects from sub-indicators of social inclusion on inequality are mixed. From policy point of view the results of this study are important which highlights that social inclusion promotes integration which ultimately reduces income inequality aligned with the agenda of EU policy.

THE NEW NORMATIVE: PLANNING CARBON NEUTRAL REGIONAL FUTURES

Aleksi Neuvonen, Demos Helsinki, Finland
Raine Mäntysalo, Aalto University, Finland
Joe Ravetz, University of Manchester, United Kingdom

The imperative of curbing GHG emissions radically in one generation’s time is significantly changing the fundamental constrain of urban and regional planning. Many cities have already accepted goals that would make them climate neutral in a period of 15–30 years. Fulfilling these pledges requires system level technological changes in energy, transport and real estate sectors. In planning and governance, these goals mark significant changes: sources of climate emissions are widely distributed and deeply embedded in diverse activities of our cities and regions. Therefore, it is fair to say that GHG emissions reduction goals set society-wide normative frames on the future of cities, regions and societies. By doing this they also introduce new discourses and alliances and eventually force to expand the scope of planning to encompass both new groups of people and wider geographical settings.

One of the main tools for implementing this new mode of planning is scenario planning. Backcasting is a way of assuming normative goals and extending planning towards transformative processes. This includes devising alternative scenarios, widening the scope of what is conceived as possible and what are the varieties of the desirable.

This article aims to introduce conceptual tools that would help to see how the new normative mode of planning, utilizing backcasting and scenarios, operates and what are its crucial communicative potentialities in gaining transformative momentum towards the normative goal. These are associated with the second-order effects of scenario work: through devising scenarios and making backcasting exercises collaborative capacities are built, as narrow perspectives are widened, the stakeholders’ mutual interdependencies are revealed, and joint momentum towards an envisioned future is generated. With the concepts of trading zone, boundary object and synergistic thinking, these second-order properties can be elaborated.

Here, trading zones are seen as collaborative platforms in which emissions reduction targets and scenario work draw together new coalitions of people and organizations, new rules are created and new types of constraints to planning are set. The concept of boundary object, in turn, is used to refer to emissions reduction targets and scenarios themselves, but also symbolic lighthouse projects (rail transport, bicycle highways, densification etc.), having ‘artefactual’ capacity as joint objects of reference. The concept of synergistic thinking brings these elements together in a broader procedural framework where different modes of thinking and deliberation (gathering knowledge of what is,
exploring possibilities of what might be in the future, deliberating on where we want to go, and devising strategies on how to get there) are interlinked.

The theoretical argument is illustrated by case examples on regional and municipal land-use strategies and preparation processes from Finland and the UK.

**TERRITORIAL INTERNATIONALIZATION POLICY, AN ARTICULATED INITIATIVE FOR TERRITORIAL DEVELOPMENT**

Jose Nino Amezquita, Regional Center for Productivity and Innovation of Boyaca, Colombia, Colombia

Nowadays, it is increasingly common to hear the voices of territories within the international spheres. Not a recent process but day after day more relevant. In turn, for decades, under the process of globalization, companies promoted their actions within different nations. This research seeks to provide a basis for a public policy design in the department of Boyaca, Colombia and its capital city: Tunja. This policy promotes international business action as a mechanism for the visibility of territories, and the improvement of current conditions of actors within the jurisdictions. To do this, it is necessary to understand how territorial internationalization, initially envisioned as a mechanism of cooperation, has been advancing, and is seen as an essential source for: promotion of productive activities; incentives to capital flow; and the improvement of general economic conditions. The process is made by some existing logics of companies internationalization. For this reason, regardless the level of development, it is mandatory the design of a public policy that promotes the benefit of companies, linked to the territorial brand and the well-being of the population, specially facing the breaking of national borders and the existing supranational integration.

**SOCIAL INNOVATIONS BY ELDERLY PEOPLE – NEW PERSPECTIVES FOR RURAL REGIONS?**

Anika Noack, Brandenburg University of Technology Cottbus - Senftenberg, Germany
Tobias Federwisch, Leibniz Institute for Research on Society and Space (IRS), Germany

Many rural regions in Europe are facing manifold structural crises. Demographic changings, a below-average economic productivity, an insufficient supply of technical and social infrastructures as well as the chronic austerity of state systems hamper developing approaches for such communities to be resilient. Structurally weak rural regions are particularly affected by these problems. For the inhabitants of these regions – which are characterized by an increasing proportion of the elderly population – this means that they feel “left behind”. Against this background, there is a need not only for technological solutions, but also for social innovations in cities and regions.

In contrast to the innovative capacity of cities, it is said that rural regions are hostile to innovations and consist of homogeneous and traditionally minded groups, which are more inclined to preserve existing assets than changing knowledge. Also elderly people have scarcely been seen as promoters of innovations so far. The proposed presentation will pay attention to the question of how social innovations in these structurally weak rural regions emerge and in how far elderly people are prospective drivers of those processes. Based on comparative empirical studies in two structurally weak rural regions in Germany the presentation will illustrate that elderly people are able to develop experimental spirit, open up new perspectives and voluntary initiate innovative projects with an impact on the community development in rural regions.
Different perspectives on Brexit are emerging in different parts of the UK in terms of the challenges to be faced by local economies, the priorities which policy needs to address, and the potential opportunities for changes arising from the UK’s decision to leave the European Union. The sub-national government in the UK was already undergoing a process of asymmetric devolution prior to the 2016 EU referendum. Local and regional perspectives point to the fact that leaving the EU will put new governance strains and stresses on these processes and also create some new opportunities. Many of these perspectives have barely figured at all in the UK-EU negotiations, and yet these closely reflect both the diversity of the UK and also the diversity of the likely implications that Brexit will have for the different parts of the UK. Many local stakeholders are well aware of many of the local challenges to be faced and also considerate of the need to re-think many policy priorities. However, they are also in many ways also frustrated by the lack of consideration of their specific needs and nuances in the ‘national’ Brexit debates, debates which reflect a rather narrow, top-down and highly centralised reading and interpretation of the issues. These local and regional perspectives will become critically important in the post-Brexit re-shaping of the UK economy and society, and especially with regard to UK sub-national governance matters. This paper will discuss the emerging evidence on these perspectives as they relate to different regions, themes and priorities, and we will examine the sub-national governance and policy challenges that Brexit has thrown up. Along with a critical review of the secondary evidence arising we will also draw heavily on the primary evidence from participatory workshops we organised across the country with some two hundred key stakeholders and representatives from the three devolved administrations of Wales, Northern Ireland and Scotland, the London service sector economy, the West Midlands advanced manufacturing sectors, and the civic leaders from the three Northern regions of England.

This paper aims to make two related contributions. First, it investigates how land-use planning and regulation affects urban economic changes through a specific focus on the heterogeneity in spatial production externalities across business sectors. Secondly, it contributes to the literature of competitive and complementary relationships between business sectors by taking account of the heterogeneity of spatial proximity effects.

The study uses high-resolution and spatially explicit data including multi-period land-use data with multiple business sectors, firm locations and employment data, and other sector-specific data (such as wages and output) from a regional economy database. Previous studies have focused on issues such as jobs-housing balance and property market changes as mechanisms that connect land-use planning and regional economic changes. This paper is focused on how the spatial configuration of land uses affects spatial externalities for production in different business sectors.
Lucas and Rossi–Hansberg (2002) pose that higher production externalities result from proximity to more employment and better access to the location of households as a source of labour. However, Bishop and Gripaios (2010) find that spatial externalities have heterogeneous impacts on different business sectors, generating a need to further explore this potential heterogeneity of spatial externalities with spatial-explicit land-use information. The required analysis presents several challenges. Two major ones are (1) access to high spatial resolution land-use data with specific sector specification and (2) access to appropriate computational resources to handle the detailed data.

This paper uses high-performance computing techniques within a spatial econometric framework on a patch-level land-use data inventory for Chicago to address these issues. The land-use data inventory has been manually cleaned and classified using the North American Industry Classification System (NAICS) at the 2-digit classification level mapped at a 100x100m (block) level of spatial resolution. Three research questions are addressed: 1) How spatial production externalities differ among NAICS 2-digit sectors? 2) What is the optimal land-use structure based on spatial externalities for undeveloped land in Chicago? 3) how does the land-use planning vision promulgated by the metropolitan planning authority compare with a market-driven scenario in terms of business productivity changes? To answer these questions, we build a spatial economic model based on the theory of sector-specific sector-specific factors of production, externalities and equilibrium wages. The model thus established are then applied to explore land use options for undeveloped sites in Chicago. A comparison will be made between market-trend-based and policy-based scenarios of development, the latter including the proposed GO TO 2050 Chicago regional plan.

CLIMATE AND ENERGY GOVERNANCE PERSPECTIVES FROM A MUNICIPAL POINT OF VIEW IN HUNGARY

Csaba Patkós, Eszterházy Károly University, Hungary
Enikő Kovács, Eszterházy Károly University, Hungary

European climate change objectives are aiming to reduce CO2 exhaust, promote the spread of renewable energy sources (RES) and stimulate energy efficiency (EE). The situation of local and regional governance is crucial in the implementation of community objectives.

A multi-year research project is implemented in East Hungary by the University of Debrecen and Eszterházy University. It focuses on the relevance of local communities in the formation of adequate responses to the fore-mentioned challenges. A broad range of primary data collections (questionnaires and interviews) were implemented in two rural counties of the country.

Our first objective is to elicit existing plans concerning RES and EE at municipality level and to measure the rate of public participation in the elaboration of them. Secondly the scopes of implemented projects were examined in the target area.

According to our results Hungarian local leaders are environmentalists, but local communities rarely owe energy/climate-change plans and projects are scarce. The main motivators of project implementation are financial. Because of poor financial conditions only EU co-financed projects are realized. As subsidy is coming through national government, political factors are crucial. From a governance point of view national and county levels are decisive and local specialities are not taken into consideration.

The research is supported by the Hungarian National Research, Development and Innovation Office – NKFIH, K 116595.
COMPARATIVE CASE STUDIES AND THE TRANSPORTABILITY OF POLICY OUTCOMES ACROSS THE SPACE
Marco Percoco, Università Bocconi, Italy

The evaluation of urban and regional development policies is gaining significant consensus among policy makers. Counterfactual analysis, in particular, is currently setting the standard as a criterion for acceptability of policy analysis. In this paper, we discuss two issues that we consider to be of paramount importance to increase the salience of counterfactual policy evaluation. First, we highlight that most of the estimates of policy impact have only local power under very strict assumptions. Second, policy evaluation is useful for policy making only if it can inform future policy making, possibly in other locations. However, given low external validity of most of published evaluations, the transferability of policy outcomes across the space is not straightforward. To deal with this issue, we import from information theory the concept of “transportability”, setting the conditions for inferring about future impact of a policy in a location, using information from other locations.

FINANCIALISING CITY STATECRAFT
Andy Pike, Newcastle University, United Kingdom
Peter O’Brien, Newcastle University, United Kingdom
Graham Thower, Newcastle University, United Kingdom
John Tomaney, Newcastle University, United Kingdom

Recognition has grown of local states as arenas and agents for financialisation: embroiled in a recursive process in which they are actively financialising and being financialised in their relations with other actors in socially and spatially uneven ways. Further work is required to understand how the agency of public and private actors shape the geographically and institutionally differentiated extent, nature and pace of financialisation over time and space. This contribution seeks to explain why, how, with whom, and where financialisation has moved on in certain places and spatial, temporal and institutional settings while in others it has been constrained and limited. A preliminary conception of statecraft at the city level is articulated to remedy accounts where the idea is invoked but not specified. Informed by a multi-actor and multi-scalar framework, city statecraft is defined as the art of government and management of state affairs and relations at the national and local levels within cities, in centre-local relations, and with other para-state and non-state actors in the private sector. Building upon characterisations of ‘asset price’, ‘entrepreneurial’, ‘financialised’ or ‘managerial’ urban governance, this formulation tries to support conceptualisation and theorisation of forms of city statecraft more capable of grasping and explaining the mixing, mutating and hybridising ways in which financialisation is ensnaring city governments in the current conjuncture in certain spatial, temporal and institutional settings. A wider contribution is sought towards more grounded, measured and balanced conceptions of ‘financialisation-in-motion’ that recognise its social, spatial and institutional constitution, unevenness, implications, and limits.

COMPETITIVE ADVANTAGES OF RUSSIA’S REGIONS IN INDUSTRIAL DEVELOPMENT: NURTURING NEWLY CREATED ADVANTAGES OR EXPLOITING THE OLD ONES?
Igor Pilipenko, Financial University, Russia

The transition of the Russian Federation from the planned to the market economy and fundamental changes in the structure and organisation of government brought about inter alia decentralisation in the economic policy implementation across the country. Regional governments received, for instance, substantial rights in setting levels of their budgets, regional taxation within certain limits as well as in the way business regulation is organised. At the same time, the structure of industries underwent
substantial changes with management functions over large enterprises being transferred from central industrial ministries to financial-industrial groups and conglomerates, while a number of smaller private business entities were established alongside them. As a result, regional authorities started to compete with each other for the federal government’s resources as well as for foreign and local private investments to ensure and foster economic development of their territories. This paper seeks to systematize competitive advantages of regions of the Russian Federation in developing their manufacturing industries using both quantitative and qualitative techniques. We attempt to determine how industrial potentials of different regions have been transformed over the course of two last decades, which inherited competitive advantages remained valid in the current environment, and how newly created advantages helped regions break through in terms of economic and industrial development.

**EVALUATING SPATIAL EXCLUSION IN LITHUANIA: WHERE, WHY AND HOW DEEP IS IT?**
Gintare Pociute-Sereikienė, Lithuanian Social Research Centre, Lithuania
Viktorija Baranauskienė, Lithuanian Social Research Centre, Lithuania

We live in globalization period and it is obvious that the stronger regions attract more demographic and socioeconomic capital. But what is going to happen with the regions that are not so successful? In this ‘global game’ Lithuania is hardly competing with going forward countries and regions. But if we look deeper into regional level we do see increasing spatial exclusion and socio-spatial inequalities within the country. Only three major cities and their suburbs are seen as the growing poles whereas the rest Lithuania is experiencing rapid decline. The territorial differences of the welfare of the population are becoming more and more obvious, spatial and social exclusion are increasing. It has a negative impact on demographic, social, economic and other processes (Burneika et al., 2017; Baranauskienė, Daugirdas, 2017). Our research shows that a great number of young people and young families in the rural territories and smaller cities in peripheries do not see any opportunities, so they are tending to leave; the schools’ network is rapidly shrinking; a significant number of people live on social benefits (Daugirdas et al., 2013).

In this presentation we tend to present rather new ‘spatial exclusion’ term in scientific field that we offer to be used for evaluating the polarisation and socio-spatial inequality in the country. We start our presentation with introducing the conception of spatial exclusion. The methodological part introduces with indices that we offer for evaluation of spatial exclusion. Further we focus on the results of the case study spotlighting the most excluded regions in Lithuania. And finish our presentation with possible recommendation for regional policy.

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**ENERGY TRANSITIONS AND THE CREATION OF NEW INDUSTRIES IN LAGGING REGIONS**
Robert Pollock, Newcastle University, United Kingdom

The paper explores the interaction of institutions and agency in the creation of new industries in lagging regions, particularly in regard to energy transition. It is based on my doctoral research and over two decades of policy experience in the UK and EU. The research was undertaken with the aim of informing both theory and policy. The paper contributes to evolutionary economic geography perspectives, specifically regarding regional industrial path creation, by focusing on the role of multi-scalar institutions in mediating the path creating interplay of actors, regional assets and mechanisms. A dualistic account of regional path creation gives cognisance to both endogenous and exogenous
causes for this formative interplay. Moreover, a multi-scalar and multi-actor perspective permits illumination of the role of differing economic actors and institutions, including the state, in facilitating regional industrial path creation. Building on this, the paper considers how the causal powers of regional innovation systems apropos regional path creation are conditioned by their multi-scalar institutional context. My research is based on fifty senior level interviews relating to the creation of offshore wind paths in two lagging UK regions, Glasgow and Humberside. Comparison of these regions indicates that multi-scalar institutions have a significant bearing on the creation of transition industries in regions in terms of their quantitative, qualitative and temporal manifestation. In addition, the need to link and integrate endogenous-oriented regional development strategies with the extra-regional environment is illuminated.

THE DETERMINANTS OF POPULATION GROWTH IN EUROPEAN REGIONS
Nicola Pontarollo, JRC, European Commission, Italy
Marcos Alvarez-Diaz, JRC, European Commission, Italy
Laura De Dominicis, European Commission, Italy
Beatrice D’Hombres, JRC, European Commission, France
Claudia Ghisetti, Università Cattolica del Sacro Cuore, Italy

European regions are experiencing differentiated patterns of population growth. These patterns, in spite having a strong national dimension, are not homogeneous within countries. In our study, we aim to investigate the determinants of population growth in EU28 sub-regions (NUTS3 level) over the period 2000-2016. Spatial econometrics is extensively employed to account for spatial dependence among neighbouring regions. We check various specifications. We include variables at regional and national scale, both on economic and social aspects. Furthermore, we split the sample in the subgroup of countries that joint the EU before and after 2004. Finally, to account for the effects of the crisis, we consider the periods before and after the 2008 Crisis separately. The preliminary results show that it exists a strong positive spatial dependence among regions, also after controlling for national factors. Among the variables that affect more population dynamics there are the economic factors.

FINANCIAL INTERMEDIARIES, SOCIAL POWER AND OFFSHORE FINANCE
Jessie Poon, University of Buffalo - The State University of New York, United States
Kuosiong Tan, University of Buffalo - The State University of New York, United States
Trina Hamilton, University of Buffalo - The State University of New York, United States

While studies have paid attention to the activities of firms and their financial flows in offshore tax havens and secrecy jurisdictions, there is scant work on role of advanced business services intermediary providers in shaping the geography of these jurisdictions. Yet such a study is needed in light of the recent release of the Panama Papers and the fallout of major political figures, celebrities and corporations as a result of the leaks. This paper examines the role of relational ties in mediating and linking high net worth individuals, political elites, corporations, intermediary providers, and, secrecy jurisdictions. By examining the major organizational hubs of social power embedded in network structures, it shows that regulatory responses to tax avoidance and evasion associated with secrecy jurisdictions may need to move beyond a state-centered model of governance. Transnational governance involves a broader set of auspices and governors that include ABS actors and their social practices which constitute both a source of learning and normative regulation.
MACRO-REGIONAL AND MEGA-REGIONAL COOPERATION: NEW FORMS OF SOFT PLANNING AND SPATIAL GOVERNANCE IN EUROPE AND THE UNITED STATES

Eva Purkarthofer, Aalto University, Finland
Franziska Sielker, University of Cambridge, United Kingdom
Dominic Stead, TU Delft, The Netherlands

In recent years, planning practice and research has increasingly acknowledged the existence of new planning scales and governance arrangements which exist between and alongside the statutory planning systems. In academic debates, these scales and governance arrangements have been termed “soft spaces”, referring to fuzzy administrative boundaries and a shifting range of issues and actors involved (Allmendinger & Haughton, 2009). Soft spaces can be considered a European concept, as they have mainly been addressed in Western and Northern Europe (Allmendinger & Haughton, 2009; Galland, 2012; Luukkonen & Moilanen, 2012; Metzger & Schmitt, 2012; Stead, 2014). Moreover, soft spaces are often associated with the European Union (Faludi, 2013), which has been advocating the creation of new spatial scales, such as city regions (Purkarthofer, 2018), cross-border regions (Perkmann, 2007) or macro-regions (Sielker, 2016). However, the notion of soft spaces is not limited to European territory. Similar processes of rescaling, supporting new regional delineations and reshaping governance practices, can also be observed elsewhere, for instance in the United States, although the term soft spaces has not yet been frequently used in other contexts.

This article addresses the recent development of macro-regions in Europe and mega-regions in the United States. It juxtaposes the approaches towards large-scale cooperation, focusing specifically on the macro-regional strategy for the Danube Region and the mega-region in Southern California. It explores the drivers for the creation of macro-/mega-regions, their territorial and thematic coverage and the challenges of policy implementation. Despite inherent differences, these large-scale regions share interesting characteristics from the viewpoint of spatial planning. While they cannot steer land-use planning as such, a policy field that remains bound to national, regional or local jurisdiction, they contribute to frame spatial development, potentially promoting a wider understanding of planning in both spatial and sectoral terms. Similarities can also be observed regarding the governance arrangements in these regions. Instead of being limited to ministries and city planning offices, the governance of macro-/mega-regions often involves different agencies, networks and actors who cooperate voluntarily and informally. Consequently, macro-regions and mega-regions face similar challenges when transitioning from a conceptual idea to an implementation stage.

Taking a comparative approach, the article identifies the similarities and differences between the large-scale governance approaches in Europe and America. It aims to understand how macro- and mega-regional cooperation affects spatial planning systems and challenges the understanding of spatial planning itself, stretching across administrative and disciplinary boundaries. Scrutinising spatial practices and governance arrangements in the EU and the US contributes to clarify what kind of planning and policy-making can occur at the macro-/mega-regional scale and how these processes relate to statutory planning at other spatial scales. Building on this comparison, the article also discusses the contemporary use of the term soft spaces in regional and planning studies in the context of the relational-territorial debate.

THEORIZING THE PRACTICE OF REGIONAL GOVERNANCE

Marco Pütz, Swiss Federal Research Institute WSL, Switzerland

Mainstream regional governance research is focused on the role of actors and/or institutions in urban and regional development processes. Actors and institutions are seen as being mutually constitutive and are representing core analytical elements of regional governance research. To move beyond
To theorize the practice of regional governance this paper explores two concepts which have not been extensively discussed in regional studies yet. First, this paper refers to Paavola’s (2007) reconceptualization of environmental governance and his idea to introduce generic governance functions (exclusion of unauthorized users; regulation of authorized resource uses and distribution of their benefits; provisioning and the recovery of its costs; monitoring; enforcement; conflict resolution; collective choice). Second, this paper refers to more recent developments in social practice theories, e.g. from Schatzki (1996), Reckwitz (2002), and Shove (2010). Here, practice is defined as a discrete activity or as a routinized behaviour constituted by meanings, materials and skills or competences. Drawing from these two strands of scholarly literature the paper concludes with a conceptual framework to analyze the practice of regional governance.

REFINING SMART SPECIALISATION STRATEGIES IN LESS DEVELOPED REGIONS: LESSONS FROM HISTORY
Korneliusz Pylak, Lublin University of Technology, Poland

Smart specialisation strategies (RIS3) were introduced to facilitate the growth of European regions, by revealing one or several science and technology areas in which a region may have an advantage over other regions. However, recent research has shown that new industries created in regions are usually related to existing ones regardless of their productivity levels, which indicates a strong dependency on current specialisations.

Therefore, this research seeks opportunities to broaden related variety, which can contribute to increasing diversification and the creation of more new industries within such related variety. Thus, the paper has two aims: (1) to analyse to what extent the current related variety of industries is path-dependent, i.e. determined by the historically oldest, to capture, related variety; (2) to determine whether the historical dependence on related variety affects the number of new industries created nowadays. In other words, whether, despite the historically weak affinity of industries, the regions were able to create more new industries, using other factors and resources, such as, for example, generally available knowledge resources or urbanisation economies.

The analysis employs data from the second census for Poland, conducted in 1931, regarding employment in 263 counties (NUTS4 level), within 215 industries; and population characteristics such as density, literacy and educational level. This is compared with current data for 378 counties, on employment in 215 industries; data from 2000 are used to avoid interferences of European Union intervention. In order to ensure the comparability of indicators assigned to counties, both old and current maps are adjusted.
ATTITUDE DIFFERENCES BETWEEN PROMINENCE AND INHABITANTS CONCERNING RENEWABLE ENERGY ISSUES IN NORTHEAST HUNGARY

Zsolt Radics, University of Debrecen, Hungary
Csaba Patkós, Eszterházy Károly University, Institute of Geography and Environmental Science, Hungary
Tamás Tóth, University of Debrecen, Institute of Earth Sciences, Hungary
György Szabó, University of Debrecen, Institute of Earth Sciences, Hungary
István Fazekas, University of Debrecen, Institute of Earth Sciences, Hungary

One of today’s key issues is the adaption of renewable energies; and the establishment and operation of social and technical systems, which have small impact on the environment. People must aim to solve this problem, during the organization of the everyday life of the settlements. In this research, we surveyed the attitude of the inhabitants in some settlements of two northeast Hungarian county. By the analysis of these data, we displayed the main elements of the social knowledge: the sources, the values and the truth level of informations. The questionnaire analysis was supplemented by interviews. In the framework of this phase, we had discussions with those stakeholders, who are interested in the urban development of 12 municipalities; about the function of renewable energies in the operation of settlements. In the third phase of the research, we analyzed foreign and domestic case studies, based on the literature, self-collected data and interviews. The most important conclusion is that the main factors of applying of the energy saving strategies are significantly influenced by the level of knowledge of the settlements’ leaders, which is deeper and more personalisaid as the everyday information of inhabitants and the social structure of the local community, the costs of the developments, and the geographical location of the settlements.

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THE INFLUENCE OF COLLABORATIVE EMERGENCY MANAGEMENT ON THE COMMUNITY RESILIENCE IN THE CASE OF EMERGENCY SITUATIONS

Bianca Radu, Babes Bolyai University, Romania

Communities all over world have to respond to unexpected events, such as environmental emergencies (flooding, fire, hurricane), major accidents (accidents involving large number of victims) or terrorist attacks. Even though there is a high probability for some events to occur, some communities are still unprepared or have an unorganized and delayed response. The traditional models of public administration do not match the rapid and unexpected changes that happen at the community level, neither the diversity of needs and demands of the citizens. The paper aims to shed light on the influence of administrative capacity and governance model on the community resilience to unexpected events. In particular, the paper explores the influence of collaborative management upon the resilience of communities in the case of emergency situations. The paper is based on a research conducted between September and November 2016 at national level on a sample of 277 City Halls and 69 Inspectorates for Emergency Situations from Romania. We found that those public institutions that embrace collaborative emergency management make communities more resilient to emergency situations. The representatives of Inspectorates for Emergency Situations perceived that a mayor concerned with the well administration of the settlement and the good cooperation with other institutions were the most important factors for a community to go through an unexpected events. In addition, those communities where social capital was stronger were more resilient. The findings support the recommendation that developing the social infrastructure and the collaboration between public institutions are important factors that make communities resilient to emergency situations.
CONVERGENCE IN COST EFFICIENCY OF DAIRY FARMS IN THE UK
Annum Rafique, Cardiff University, United Kingdom
Max Munday, Cardiff University, United Kingdom
Kent Matthews, Cardiff University, United Kingdom

This paper aims to analyse the convergence in cost efficiency of dairy farms in the UK from 2006 to 2014. The cost efficiency of the farms is estimated using Data Envelopment Analysis (DEA). The current trend in the dairy sector in the UK shows that the number of dairy producers is falling. The decision to leave the dairy farming has been linked to high input costs and a relatively slow increase in milk prices. Thus, it has become increasingly important to determine the optimal quantity of inputs required based on minimising their production costs without a decline in output. We find that the intensive farms can cover their costs of production from the sales of milk.

We need to ask if the regions with relatively higher inefficiency would eventually catch-up to the highly efficient regions or would the differences between the regions grow wider over time? Borrowing from the growth theory, we test for β-convergence and σ-convergence in cost efficiency of dairy farms. Results provide supporting evidence of convergence in efficiency towards best practice.

WHAT DOES IT MEAN TO BE CENTRAL IN THE PERIPHERY AND PERIPHERY IN THE CENTRE? THE CASES OF THE UNIVERSITIES OF EVORA, CAMPINAS AND BRASILIA
Maria da Conceição Rego, Universidade de Évora, Portugal
Ana Paula Bastos, Universidade de Brasília, Brazil
Mauricio Serra, UNICAMP - Universidade de Campinas, Brazil

We are not particular attached to one paradigm of the centre-periphery theory, in which centrality is usually related to diversity and decision power, and the peripheries are less connected and more dependent on external political and industrial decision. Because of its complexity, universities play a central role in space, do not exist in every human agglomeration and polarised users from a wider distance. Irrespective of its own history or path dependency, any university may decide to be completely conventional, carrying out its traditional teaching and research missions with competence in the hope of converging to the centre of the system. Another possibility is to be unorthodox. This means playing an active role in regional development policies, which demands a stronger interaction with other regional actors and society as a whole. By large, the expansion of the Higher Education system around the world is based on the strategy implemented by developed economies that sought to promote an increase in both the number of universities and placement of students not always related with regional demands and needs. This paper aims at analysing the different strategies and practices adopted by three universities that play an active role in its regions, placed in distinct contexts: the Portuguese university of Evora, which is peripheral in the centre, and two Brazilian universities - Brasília and Campinas, which are central in the periphery but, at the same time, are located in macro-regions that differ in social and economic terms.

SMART SPECIALIZATION INNOVATION STRATEGIES IN CATCH-UP REGIONS: FITTING INSTITUTIONS FOR POLICY IMPLEMENTATION
Alessandro Rosiello, University of Edinburgh Business School, United Kingdom
George Papamichail, University of Edinburgh, United Kingdom
David Wield, University of Edinburgh, United Kingdom

A growing number of regional innovation studies argue that the development of Smart Specialisation Strategies (S3) in catch-up regions cannot be taken for granted due to a number of implementation
barriers (Gianelle et al., 2016, Asheim and Grillitsch, 2015). Most of those studies relate these barriers to the regions’ lacking capacities to build responsive institutions (Grillitsch, 2015, Rodriguez-Pose and Wilkie, 2015, McCann, 2015, Morgan, 2016). Therefore, S3 need further empirical investigation to understand under what institutional conditions, in a globally connected environment (Mastroeni et al., 2013), S3 can be better implemented to promote structural change and economic renewal (McCann et al., 2016).

This paper aims to contribute to this debate by focusing research on southern European catch-up regions with prolonged economic recession, weak institutions and profound difficulties in implementing S3 (Landabaso et al., 2014). S3 practices are examined in two Greek regions (Crete and Central Macedonia), which have been in fiscal crisis for almost eleven consecutive years. Empirical evidence is used (fifty interviews and observational research) to show how problems related to critical mass accumulation, policy administrative burden and limited regional power to legislate, raised policy uncertainty, increased local actors’ inertia and led to delays in conducting entrepreneurial searches and discoveries.

Two key conclusions arise from our work. First, while weak regional institutions are seen as the main cause of the S3 implementation challenge, (Kroll, 2015, Gianelle et al., 2016, Foray, 2016), we show that other non-regional factors, including political will, national vested interests and governance constraints imposed exogenously by the TROIKA, also hinder S3 development. Our case evidences a non-typical European Union (EU) situation, in which the success of S3 development is not only dependent on the effectiveness of catch-up regions to change their institutions (Grillitsch, 2015), but also on the extent to which non-regional political level factors impact on S3 practices (Marques and Morgan, 2018), e.g. the reluctance of central administration to shift power from national to regional levels and TROIKA’s constraints in public-sector recruitment.

Second, acknowledging the four modes of institutional change: displacement, layering, drift and conversion (Mahoney and Thelen, 2009), we show that S3 implementation in catch-up regions is most likely to happen through displacement and layering. Building on previous empirical work which reveals the likelihood of institutionally thick regions to trigger path renewal through displacement and layering (Moodysson et al., 2015), our case evidences that S3 development in institutionally weak regions is most likely to be favoured through the same routes of institutional change. In a Cretan and Central Macedonian context, the necessity to replace existing formal rules with new institutions to favour S3 implementation, the process of displacement, is evidenced through the idea of spatial re-organisation, in which a territorial restructuring through regional mergers can ensure the acquisition of critical mass. Regarding the introduction of new institutions alongside existing rules, the process of layering, institutional change embodies the simplification of public-sector organisations and the authority of regional governments to enact tailor-made development laws, such as granting fiscal incentives, to support S3 development.

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SMART SPECIALIZATION: AN INCLUSIVE TOOL FOR INTEGRATING MINORITIES IN MIXED REGIONS INTO THE HI-TECH SECTOR?

Alessandro Rosiello, University of Edinburgh Business School, United Kingdom
Mor Shilon, Israel Institute of Technology, Haifa, Israel
Dan Kauffman, Sapir College, Israel
Dafna Schwartz, Ben Gurion University, Israel

Since the 2000s a change in Nazareth economy has taken place: technological start-ups owned by Israeli-Arab entrepreneurs have been mushrooming. By networking with Jews, Israeli-Arab entrepreneurs were able to accumulate social and cultural capital that resulted in the transformation
of their position in the Jewish-hegemonic field of technological entrepreneurship. To analyzes this transformation, this study draws on qualitative methodology, using primary and secondary data gathering and analysis, and in-depth interviews. Our findings are two-fold. First, we acknowledge a spontaneous and successful smart specialization (SmSp) process in the mixed region of Haifa, contributing to the economic inclusion of Arabs. Second, we show Arab technological entrepreneurship is benefited from a connection to the Jewish ecosystem from the outset. In contrast to recent studies of SmSp implementation in lagging regions, we argue that successful implementation of SmSp is possible even in mixed regions as long as four stages are followed in the implementation process: a pre-phase of entrepreneurs’ soft-skill spillover between the majority and the minority, followed by the three phases of a spontaneous SmSp pattern as described by Foray (2014) (Entrepreneurial Discovery, Spillovers and Entry of Similar or Complementary Businesses, and Structural Change).

Our research contribution is three-fold: empirical, theoretical, and practical. First, the study shows successful implementation of SmSp is possible in the unique context of mixed regions. Second, it contributes a pre-phase of entrepreneurial soft-skill spillover to Foray’s three-phase model of SmSp dynamics. Finally, considering demographic changes in Europe and the transformations they bring about, it offers inclusive policy recommendations for the implementation of SmSp in lagging regions.

THE ROLE OF PROXIMITY IN THE UNIVERSITY-DRIVEN SOCIAL NETWORKS. THE CASE OF THE US AND EU BIOTECHNOLOGY ClUSTERS
Malgorzata Runiewicz-Wardyn, Kozminski University, Poland

In the last decade, the interest in social networks and their role in sharing knowledge and ideas, as well as stimulating inventions and innovations has been progressively discussed. The universities considered to be natural environments for such social networking and knowledge spillovers. The concept of an “university-driven social networks” lies within the idea of the “university-based technology ecosystems” and refers to the university as an attractor for developing and transferring innovative ideas via student and researchers interactions, spin-offs and other partnerships.

The paper aims at contributing to the emerging debate on these topics by sharing new evidence on the structures and dynamics of the university-driven social networks in the US and EU. The following research problems are being discussed: 1/the structure and dynamics of university-driven social ecosystems; 2/ the role of physical and other proximities (geographical, social, cognitive, and cultural) as pre-conditions for stronger social ties and more frequent interactions. The insights offered by this study contribute to the development of strategies and policy measures to further unlock the innovation potential in the universities.

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OPENNESS VALUES AND REGIONAL INNOVATION
Roel Rutten, Tilburg University, The Netherlands

How do openness values, such as tolerance, matter for regional innovation? Statistically research corroborates the hypothesis that openness values allow knowledge and ideas to travel between different communities and thus encourage innovation (Florida et al. 2017, Gambardella et al. 2009, Haisch and Klöpper 2014, Weckroth and Kemppainen 2016) but does not answer the question how
they do so. Moreover, the literature also explains regional innovation without the help of openness values. This paper addresses the how-question as follow. First, it conceptualizes regional innovation from a relational perspective. Second, it performs an empirical analysis on 108 NUTS 2-regions in North West Europe. Third, it elaborates the empirical findings into an answer to the how-question. From a relational perspective, innovation follows from knowledge creation between individuals (Cohen et al. 2014, Rutten 2017). Knowledge creation in this paper is conceptualized as analytical (science) and synthetic (application) knowledge creation. Also economic diversity suggests knowledge creation across diverse economic activities. Openness values are conceptualized as tolerance and modernization values. Tolerance in combination with socio-cultural diversity allows regional innovation to benefit from a diverse pool of knowledge and ideas in society. Modernization values in combination with personal freedom allow self-expression, which individuals use to seek new knowledge and ideas. Empirically this paper performs a QCA (Qualitative Comparative Analysis) study on 108 regions. QCA is ideal to answer how-questions because it identifies multiple mechanisms explaining regional innovation that may or may not include openness values (Ragin 2008). This QCA-study identifies four such mechanisms explaining regional innovation: the diversity, technology-transfer, cosmopolitan-environment and creativity mechanisms. Only in the technology-transfer mechanism do openness values not play a role.

FROM DECENTRALISATION TO DIVERGENCE? A REVIEW OF THE ECONOMIC STRATEGIES OF SIX ENGLISH CITY REGIONS
Carina Schneider, UCL, United Kingdom
Clémentine Cottineau, CNRS, UMR 8097 Centre Maurice Halbwachs, France

The most recent waves of government decentralisation and resulting policy discontinuation in the UK have created a variety of new institutional and fiscal geographic arrangements in policy-making. Along with these political geographies, a fragmented map of initiatives is developing between localities, calling into question the role that the relationship between scale, boundary and policy plays and the effect this might have on regional and national policy delivery. This paper is an investigation of the divergence and convergence of discourses underlying the recent process of devolution and the shaping of city region policy agendas as part of Strategic Economic Plans in England. Our analysis focuses on six city regions - West Midlands, West Yorkshire / Leeds City Region, Greater Manchester, Tees Valley and Sheffield City Region. It is based on a combined quantitative and qualitative discourse analysis of core policy documents to give insight into the wider context of their production and the city region’s self-conceptualisation within the process of devolution. This is set against a backdrop of the core theoretical ideas emanating from regional science, namely economic specialisation, agglomeration economies and transport network externalities, and the debates within the current policy sphere in England. We find a number of issues with the current devolution approach in competing priorities between localities, an over-reliance on agglomeration economies, and potential mismatches in scales of decision-making and delivery.

REGIONAL DISPARITIES IN THE HUNGARIAN URBAN ENERGY CONSUMPTION
Tekla Sebestyén Szép, University of Miskolc, Hungary
Zoltán Nagy, University of Miskolc, Hungary
Géza Tóth, University of Miskolc, Hungary

The cities account for 60 to 80% of global energy consumption and based on projections the development of urban areas will be the main engine of energy use growth in the future. The main objective of this study is to examine the dimension of smart environment through the residential energy use. We focus on the regional disparities of urban energy use (electricity use per capita and
natural gas consumption per capita) in Hungary. The analysis covers 23 Hungarian towns with county rights and Budapest. The examined time period is from 2010 to 2015. Not only simple statistic methods (such as spread, range, mean, standard deviation, dual indicator – applicable indicators for measuring the spatial polarization) are applied, but the Theil Index and the area based Gini-index are calculated as well. The basic research question is related to the size of inequalities based on the environmental components of smart cities. The following statements are made:

Significant differences between the rural and urban energy use can not be experienced. The Theil Index components (within-group inequality component and between-group inequality component) raise the attention to the differences within-group related to the natural gas consumption. These disparities are more important than values of the between-group inequality components. It can not be stated that the success, belonging to the “elite” category causes significant changes in the urban electricity and natural gas consumption patterns. There is positive strong correlation between the electricity use per capita (kWh) and the income per capita, and between the natural gas consumption per capita (m3) and the income per capita.

THE IMPLEMENTATION OF LOCAL INDUSTRIAL STRATEGIES IN GREATER MANCHESTER AND PRESTON

Marianne Sensier, University of Manchester, United Kingdom
Fiona Devine, University of Manchester, United Kingdom

We investigate how the Government’s Industrial Strategy could translate into Local Industrial Strategies for regional economies and what they imply for inclusive growth in the local economy. There is now a focus on addressing challenges in terms of low wages, low skills and low rates of productivity. The Government has stated that the strategy will need to be evidence-based and highlight local strengths, challenges and future opportunities. There is an emphasis on monitoring and evaluating impact of activities and productivity improvements.

In this study we monitor economic resilience of UK regions by dating business cycle turning points in regional real GVA, employment and real productivity time series data to profile their recovery from the financial crisis. Our empirical work reveals that the business cycle in real productivity has not returned to its pre-recession peak level in the NUTS 1 regions (for data up to 2016) of Yorkshire and Humberside, Eastern England and London. Most UK region’s real GVA series have returned to pre-recession levels but rapid job growth in many regions (apart from the North East) has reduced productivity. We investigate the distribution of regional job growth by wage rates since the crisis to see if increases in lower paid employment are related to lower productivity.

We will document demand side policies that are being used to encourage inclusive growth and productivity improvements in Greater Manchester and Preston including: embedding social value into procurement contracts; establishing a Co-operative Commission/ Development Network; support for a community bank and the foundational economy.

TERRITORIALITY AND SPATIALITY - TWO PARAMOUNT CONCEPTS IN FURTHERING EUROPEAN INTEGRATION THEORY

Franziska Sielker, University of Cambridge, United Kingdom
Estelle Evrard, University of Luxembourg, Luxembourg

The EU’s activities have an increasing influence on spatial development and planning processes at all levels through its urban agenda, the establishment of territorial cooperation and its financial
incentives as well as the legal regulations of sectoral policies. Against this backdrop scholars have attempted to capture EU spatiality. The concept of territoriality was coined as a useful tool to examine the spatial significance of the EU as a political system transcending nation states (Moisio & Lukkonen, 2014). At the same time, European integration theories conceptualized the dynamics and processes triggered by the EU. Political scientist have taken an interest in the development of the multi-level governance system of the EU, the changing role of Nation States to Member States and subsequent changes in the role of institutions in political decision-making (Piattoni 2010, Bickerton 2012).

Against this background the paper first aims to examine the overlaps and differences of the concepts of spatiality and territoriality held by policy and academic debates to date. Starting from this differentiation, we, secondly, examine empirical evidence as regards to the relation of spatial developments and processes of European integration. We, thirdly, explore how European integration theory can be advanced to better consider spatial relations and regional developments.

We argue that in order to understand the multidimensional dynamics of European integration, theory making needs to consider spatial relations and the role of spatial development more explicitly, and vice versa. The most prominent examples that proofed that political developments, and peoples vote depend to a much greater extend on spatial relations and (perceived) regional development then European integration theory has suggested so far, is the Brexit decision. Through taking on board a spatial lens, European integration theory can take account of the diversified developments of both between Member States and within Member States. Interestingly, spatial scholars to some extend draw their arguments on European integration theory, often without incorporating the role of these changing institutions explicitly. In linking different set of academic discussions together, this paper aims to provide a theoretical contribution to regional, planning and European studies.

The Role of Local Governments in Shaping Regional Governance: Reconsidering the Measurement of Local Autonomy

Thomas Skuzinski, Virginia Tech, United States
Shahidur Talukdar, Virginia Tech, United States

Regional governance often depends on the voluntary participation of local governments in a variety of formal and informal regional organizations, inter-local agreements, and cross-sectoral collaborations. Theory and empirical evidence suggest that the impulse of local elected officials and administrative staff toward such participation is affected, in significant part, by the autonomy accorded local governments by national and sub-national governments. Many measures of autonomy exist addressing myriad dimensions of local government structure and function, but what they all share in common is an objective treatment of autonomy. These measures help us trace variation across national and subnational governments, but they assume that local actors have an accurate and consistent understanding of the grants and limitations comprising local autonomy. However, there is little support for such an assumption. This study explores the gap between the objective conceptualization of local autonomy and the subjective understanding of that autonomy by the local actors who must choose whether to compete or cooperate. The goal is to improve the ability of regional governance scholars to understand the adoption and endurance of regional governance and its outcomes. The study uses an original survey of local government actors in eight major U.S. metropolitan areas—Atlanta-Sandy Springs-Roswell, GA; Chicago-Naperville-Elgin, IL-IN-WI; Dallas-Fort Worth-Arlington, TX; Detroit-Warren-Dearborn, MI; Los Angeles-Long Beach-Anaheim, CA; Phoenix-Mesa-Scottsdale, AZ; St. Louis, MO-IL; Washington-Arlington-Alexandria, DC-VA-MD-WV. The regions were chosen because they are major metropolitan areas in which the social and economic interdependence of local governments means that the question of regional governance should be actively under consideration, and because they are known to vary markedly in the objective state
construction of local government autonomy. The results show that a significant gap exists in local actors’ understanding of autonomy, that this varies in systematic ways with local government institutional and socioeconomic characteristics, and that this leads to variation in their appraisal of regional governance. The policy implication is that encouraging regional governance by changing national and subnational rules may be unsuccessful without a corresponding effort at educating local elected officials and administrative staff.

THE DIVERSE ECONOMIES OF HOUSING: PATTERNS OF INEQUALITY IN ROMANIAN SUBURBIA
Adriana Mihaela Soaita, University of Glasgow, United Kingdom
Caroline Dewilde, Tilburg University, The Netherlands

Drawing on Eurostat-SILC micro-data, we explain patterns of (dis)advantageous modes of owner-occupancy and changes during 2007-16. To do this, we first introduce the concept of ‘diverse economies’ – capitalist, alternative-capitalist and non-capitalist, past and present – to housing studies. This helps us illuminate the ways in which the current housing system in Romania has been historically constituted and currently afforded, occupied and experienced across the urban-rural divide, with a special focus on the new phenomenon of suburbanisation through self-development. It also justifies our operationalisation of the divergent ways in which diverse economies intertwine in the provision/consumption of housing by differentiating between five ‘housing types’ (across the categories of urban/rural and house/flat). Secondly, changing patterns of socioeconomic stratification by housing types are examined. Suburban developments explain two of these: the fast polarisation in urban houses through the addition of new suburban, self-developed homes; and a growing sector of new-built flats in commuting rural areas which show a surprisingly economically advantaged and young profile. Besides these, we found socioeconomic patterns of extreme disadvantage and further residualisation in rural houses without utility provisions; a balanced profile in rural houses with utility provision; and persistent advantage in urban flats. Our analysis demonstrates that housing disadvantage is more severe when households’ non-capitalist and alternative economic practices have been least articulated with the formal economy, such as in rural locations and unskilled individuals. Conversely, housing advantage arises from positive synergies between diverse economic practices, privileging urban and suburban locations and high-status professionals.

REGIONAL STUDIES AND THE FLOWS OF FINANCE: BUILDING A ‘FINANCIAL CHAINS’ PERSPECTIVE
Martin Sokol, Trinity College Dublin, Ireland

There is a growing realisation that the role of finance in (re)shaping regional economic landscapes has been neglected in regional studies for too long. Putting finance (back) onto the regional agenda, however, requires better understanding of how finance functions across space in the era of financialisation. In order to do that, we need a better grasp of financial flows in contemporary economies. This paper reviews three prominent, contrasting approaches to the flows of finance – a mainstream-economic, Marxist and Post-Keynesian. It argues that none of these approaches, on its own, seems to be able to capture all key elements that could be deemed critical in a financialising economy. The paper thus stresses a need to develop a more accurate picture of financial flows/circuits, building on the concept of ‘financial chains’.
A THIRD AFRIKANER MIGRATION: PLANS FOR SURVIVAL OF A PEOPLE

Das Steyn, University of the Free State, South Africa

In 1652 the Dutch East India Company started a refreshment station at Cape Town for their ships sailing to the East. A people called the Afrikaners was formed out of mainly Dutch, German and French Huguenots workers. In 1806 the Cape became an English colony.

The Afrikaner’s first migration was seeking freedom from British rule in a movement called The Great Trek (move) in 1834-1840. The second migration took place after the great depression in 1929, following a report on the poor white question in South Africa, funded by the Carnegie Foundation of New York, recommending urbanization of the Afrikaners as a means to better education; skills development; and ultimately escaping poverty.

In 1994 a majority of Afrikaners voted for a New South African dispensation in which cultural and economic freedom was assured. ANC policies are however increasingly forcing Afrikaner education to become English, while economic freedom is curtailed by reversed apartheid through the allocation of jobs to blacks by legislation. Pressure is also experienced by the white farming community due to farm attacks and exacerbated by the political call to expropriate land without compensation.

This paper elaborates on current plans freedom minded Afrikaners implement to survive as a people. A third migration, primarily within their own country, seems eminent. As with the Great Trek there are a number of plans of which not all will be successful. Only time will tell which of these ‘treks” will be successful.

REGIONAL AND SPATIAL DEVELOPMENT PLANNING: WHY ARE WE NOT TALKING ABOUT THE SAME THING?

Marijana Sumpor, The Institute Of Economics, Zagreb, Croatia
Irena Dokic, The Institute of Economics, Zagreb, Croatia
Ivana Rasic Bakaric, The Institute of Economics, Zagreb, Croatia

There are many problems with plans and planning. Sometimes we plan too much, too broad or too focused, do not coordinate sectors, do not consult stakeholders, or plan unrealistically, have weak institutions, lack capacities and resources to implement them, etc.

In this paper we analyse the convergence of regional and spatial development planning processes in Croatia. We question the practice of these two different but parallel planning approaches, and demonstrate in what way their convergence can contribute to better regional future? With Croatia’s accession to the EU in 2013, the legislative planning framework has been set up allowing the integration of socio-economic planning with spatial and environmental planning. These systemic improvements incorporate multilevel governance, vertical and horizontal coordination.

After reviewing the relevant planning literature, methodologically we will focus our research on the pros and cons of the recently established planning system. The Croatian Parliament has adopted two fundamental planning documents in 2017 – the Regional Development Strategy of the Republic of Croatia for the medium term period till 2020 and the longer term Spatial Development Strategy of the Republic of Croatia. Both documents are being implemented across levels of government encompassing the counties (NUTS III), cities and municipalities (LAU 1 and 2).
**LEGITIMISING IDENTITY DISCOURSES AND METROPOLITAN NETWORKS: BETWEEN URBAN COMPETITIVENESS AND TERRITORIAL PROTECTION**

Kees Terlouw, Utrecht University, The Netherlands

Urban economies flourish and urban networks expand, but their governance is contested. The economic triumph of the city is not yet matched politically (Glaeser 2011: Barber 2014). The growing importance and development potential of metropolitan regions requires more effective regulation to strengthen Europe’s economy (EC 2017). New forms of administrative cooperation promoting these metropolitan networks are however difficult to legitimise, especially compared to the well-established local and regional administrations outside the cities. Not all of these territorial administrations welcome their incorporation into networks focussed on nearby or distant cities (Harrison & Hoyler 2014). While some embrace the expected opportunities, others fear unwanted changes. Opponents frequently question the legitimacy of these urban incursions and claim that this threatens their suburban or more traditional rural identity (Boudreau & Keil 2001; Tomàs 2012; Fortin & Bedard 2003; Lightbody 1999; Keil 2002). Most academics and policy makers focus on the economic necessity and organisational problems of metropolitan regions. This paper focusses instead on the interplay between the construction of identity and views on legitimacy. It develops a typology of the different legitimising identity discourses used by urban and non-urban administrations to strengthen or resist cooperation in metropolitan networks. Some examples from the Netherlands are used to illustrate the different use of legitimising identity discourses.

**JEWELLERY RETAIL GEOGRAPHIES: SETTING THE AGENDA**

Lotte Thomsen, Copenhagen Business School, MSC, Denmark

This paper deals with jewellery retailing, on which very little research has been done. It identifies and enlists several empirical particularities of jewellery retailing, and turns them into three overall research themes for ‘jewellery retail geography’, namely (1) interconnections between retailing and finance; (2) inter-regional and intra-regional chains and network relationships and (3) regionally embedded consumption patterns. Each overall theme covers elements that are considered to be essential—and often unique—to jewellery retail. The paper argues that the exploration of such empirical matters will generate new insights into retailing dynamics that also calls for reopening of, and critical engagement with, the literature on retail embeddedness in cities and regions where retailers are based, located and work. The identification of research themes is based on recent fieldwork conducted in Singapore, a major retail hub with a long tradition of sales and consumption of fine jewellery. Empirical findings on Singapore’s domestically owned fine jewellery retail sector, with a focus on its links to finance and investment, supply regions and consumers, provide the basis for the illustration and conceptualisation of the suggested agenda for ‘jewellery retail geographies’.

**ENGLAND’S MAIN (SUB-) REGIONAL PLANNING: THE PATCHY INHERITANCE OF LOCAL INDUSTRIAL STRATEGIES**

Alan Townsend, University of Durham, United Kingdom
Lee Pugalis, University of Technology, Australia
Nick Gray, Northumbria University, United Kingdom
Ania Ankowska, Northumbria University, United Kingdom

“Place-based” industrial strategy is key to the EU’s 2020 innovation programme. Contrastingly, the UK government’s Strategy of 2017 was seen as weak not foregrounding the spatial element, and controversial in assigning responsibility for it to Local Enterprise Partnerships (LEPs). The need to
reform them was shown in Strengthened Local Enterprise Partnerships, published in July, followed by guidance in their writing new Local Industrial Strategies (LISs).

The precedent of all LEPs writing Strategic Economic Plans (SEPs) in 2014 provides vital lessons. This paper analyses the opportunities for and weaknesses of LISs, drawing on previous full content analysis of SEPs* and studying two of the LIS pilot areas. While there was a strong unanimity in prioritising SMEs, new enterprises and business development and in remedies in terms of skills, housing and transport, SEPs were very variable in length, analytical depth, economic scope and utility. There was little attention to innovation, while less than half* took in issues of deprivation, social inclusion or environmental consequences. As a result of limited budgets, horizons and remit, many of these strategy-cum-promotional documents lacked robust quantitative analysis and forecasting.

A good proportion of SEPs were regarded as internal documents, rather than broader plans for their area, simply bidding documents for Local Growth Funding and that LEPs. Perhaps LEPs will simply dust off their SEPs to present LISs? They may lack bold experiments in scenario planning. They may not contribute reliably to the emerging return of strategic planning amid a patchy pattern of political devolution.

Lee Pugalis, Alan Townsend, Nick Gray and Ania Ankowska

LILLIES OF BRISTOL: WELFARE COSTS FOR BEING A GREAT WOMAN
Annie Tubadji, University of the West of England (UWE Bristol), United Kingdom

Taking an inspiration from the famous book and movie ‘Lilies of the Field’ and related sociological research dealing with the specific socio-economic behavioural motivations of altruistic non-conformist individuals (see Day 1998), this paper asks the question what are the welfare costs for female leadership in an urban environment. Choosing the case of the city of Bristol, the UK, a unique database is tailored on the fundament of personal histories of over 250 ‘great women’ of Bristol living in the period 1184 - 2018. The analysis includes socio-economic characteristics of the female leaders from the perspective of their inherited cultural capital and social status, their acquired skills and human capital, their marital status and social mobility as well as their motherhood and its relation to their charitable activities; health characteristics, forced feeding and other exposures to precarious health conditions and physical disabilities are also considered. These welfare characteristics of the female leaders are used to explain their longevity juxtaposed against the average longevity of a woman living in the same period of time in the city of Bristol and its changing socio-cultural context. The results identify a gap between the welfare of socially active female citizens and their female peers. Signals for the areas of a great woman’s life that contain pockets of needs for social protection and support to female leaders in the city environment are outlined.

ITALIAN FIRMS’ TRADE PATTERNS: A FIRST LOOK AT INTERNATIONAL AND INTERREGIONAL TRADE DECISIONS
Stefano Usai, University of Cagliari, Italy

In this paper we study Italian firms’ behaviour in terms of international and inter-regional trade activities during recent years. In particular, our aim is to detect similarities and differences in trade patterns in order to shed some light on the determinants of these two types of firm strategies. Our analysis is carried out within the framework of probability panel models and makes use of a very rich micro-level dataset. Main results, while confirming the relevant role played by firms’ productivity,
provide new evidence on the relevance of innovation activity and learning processes in enhancing the probability of entering both international and interregional markets. Our findings also show that the determinants of the firms’ propensity to trade exhibit varying effects across the macro-regions of the country.

**HEIS AND THE ENTREPRENEURIAL DEVELOPMENT PROCESS: LEARNING ORGANISATIONS IN LEARNING REGIONS?**

Paul Vallance, University of Sheffield, United Kingdom
Louise Kempton, CURDS, Newcastle University, United Kingdom

This paper examines the potential for Higher Education Institutions (HEIs) to support the ongoing development of research and innovation strategies for smart specialisation (RIS3) in European regions. This, it is argued, will require the HEIs to adapt their research and teaching activities to more closely align with and help transform the priority innovation domains of their region’s RIS3. A theoretical framework draws on the interrelated concepts of learning regions to understand the collective development of a RIS3 by varied regional stakeholders and learning organisations to understand the individual capabilities of these stakeholders (including HEIs) to adapt their structures and practices to align with this new strategic environment. The empirical evidence is drawn from a review of ‘entrepreneurial discovery’ exercises carried out in five HEIs across Europe to identify how their research and teaching capabilities could be more effectively mobilised to contribute to the implementation of the RIS3 in their region. These five HEIs encompass a diverse range of institutional and regional contexts in the UK, Italy, Spain, Portugal, and Poland. The research found some existing engagement of the HEIs with their region’s RIS3, but this was restricted to a relatively few employees and contingent on factors including the maturity of the RIS3 and positioning of the particular institution within the region’s higher education sector. We also identify ways in which the HEIs could contribute more extensively to the development of their region’s RIS3, but note challenges relating to the limited incentives for them to do this and organisational barriers to smart specialisation priorities becoming embedded within core research and teaching programmes.

**THE ROLE OF INNOVATION AND KNOWLEDGE NETWORKS ON REGIONAL RESILIENCE IN THE PERIPHERAL REGION**

Mariske van Aswegen, North-West University, South Africa
Francois Retief, North-West University, South Africa

Within the evolutionary approach to regional resilience, it is advocated that both adaptation and adaptability is essential for the region to react in a resilient manner and to surmount negative lock-in. It is noted that if the focus is primarily on adaptation there is a risk of a ‘performance trap’ or eventual stagnation, due to inflexibility and lack of innovation. Where in the instance of a predominant emphasis on adaptability could lead to a ‘failure trap’ due to a multitude of underdeveloped ideas and slow (or no) progress. In order to further the evolutionary approach to regional resilience, the concept of ‘lock-in’ and a locality’s reaction thereto is crucial, as it is regarded as a mechanism shaping adaptation and adaptability capabilities of a region. Various ‘de-locking’ mechanisms are identified to provide a basis to move from a state of adaptation and adaptability, which suggests that settlements can enhance their adaptability if strategies are in place to prevent lock-in.

The role of innovation and knowledge networks in regional resilience is discussed as a ‘de-locking’ mechanism, on the premise that it influences the sensitivity of regions to shocks as there is a constant conflict between connectedness and resilience. This paper suggests that a focus on strengthening intra-regional interaction through concentration and clustering, will enhance the region’s ability to
attract and attain knowledge, positively impacting on the innovation readiness of these regions. In establishing a knowledge-rich region, higher adaptability is established, lessening vulnerability to external shocks and disturbances and impeding regional lock-in.

**DOES COHESION POLICY AFFECT TERRITORIAL INEQUALITIES AND REGIONAL DEVELOPMENT?**

Lionel Vedrine, CESAER, France  
Julie Le Gallo, CESAER, France

The European Union is currently experiencing a delicate phase that questions its legitimacy. Citizens are increasingly defiant of public and political action, targeting the European Union. This is reflected in the latest national elections: Brexit, the polarization of voting in Italy and Austria, the rise of populism in France and Germany to name just a few examples.

This paper study the impact of European cohesion Policy on regional growth and territorial inequalities linked to the Williamson Hypothesis. The question about the impact of this policy has generated a lot of papers with a lot of evaluation methods. Yet, no consensus could be reached on the effectiveness of this policy, and the research mainly focused on the effect on economic growth, with a lot of paper which use economic convergence model as benchmark. A large part of the research focus on analysis at NUTS2 level, without take into consideration the dynamic of intra-regional disparities.

In another part, previous papers mainly focus on average effects of the cohesion policy, while this policy are implemented differently across European regions and under very different economic conditions. To fill this gap in the literature, we propose to work on two questions: First, how the cohesion policy affect both intra-regional disparities and regional development? Second, does the cohesion policy generate heterogeneous effects on regional development (and disparities)?

A panel-data database of 266 NUTS2 regions of the UE-28 from 1995 to 2015 is used. The panel-data regression is employed with fixed effects and with simultaneous equations in order to control unobservable characteristics, spatial dependence and simultaneity between regional development and disparities. Cohesion funds have a positive effect on both growth and reducing regional disparities, but this effect is diverse, dependent of regional endowments: population density, investment, trade openness and quality of government.

**UNIVERSITIES, TECHNOLOGY HUB AND NODAL POINT OF METROPOLITAN FLOWS IN CAMPINAS, SP, BRAZIL**

Jane Victal Ferreira, Pontifícia Universidade Católica de Campinas, Brazil  
Denio Munia Benfatti, Pontifícia Universidade Católica de Campinas, Brazil

Cities that have intense university life and cultural activities impact on the urban and regional development and foster the implantation of global companies of high technology. This article presents the case of the City of Campinas where two universities, the University of Campinas (UNICAMP) and the Pontifical Catholic University of Campinas (PUC-Campinas) among other higher education institutions contributed for its urban growth and for the formation of a hub with several companies and centers of research of high technology. In addition to training of human resources, part of the technological dynamics of the city is due to the creation of Ciatec (Development Company of the High Technology Center) a mixed-economy municipal autarchy created with the purpose of implementing policies for the installation of high technology companies. However, the road system morphology, consolidating the old railroad flows, produced a nodal point of regional scope through which goods and consumers are daily carried forward. In this nodal point stands the city of Campinas, head of the
RMC (Campinas Metropolitan Region) with its urban fabric that gathers and distributes the commuting flows coming from the hinterland and delivering to the state capital finally accessing the Port of Santos. In addition to integrating this larger universe, Campinas gains different outlines and meanings when it comes to the experiences of a megalopolitanized territory located in the interior of the state of São Paulo largely integrated with the world of credit purchases, car use, shopping malls and universities.

**INTER-REGIONAL REDISTRIBUTION AND FISCAL POLICY IN ITALY**

Giovanni Vittorino, Bank of Italy, Italy

This paper studies, for the period 1983-2015, the impact of the Central Government’s fiscal policy on the redistributive and risk-sharing effects of horizontal fiscal flows among Italian regions. The main novelty of this study is an empirical framework that allows for us to disentangle the horizontal and vertical components of regional fiscal flows and to test whether redistributive and risk-sharing effects of horizontal fiscal flows changed over time. Our estimates suggest that although the redistributive effects of horizontal fiscal flows are substantial, their magnitude declined after the 1990s as a consequence of the fiscal adjustments undertaken by the Italian Government, to which regions are the ultimate contributors. We also show that after the unfolding of the recent economic and sovereign debts crises, the horizontal fiscal flows started to act as a risk-enhancing device with respect to short-term idiosyncratic shocks to the economic activity of a region.

**ECONOMIC COMPLEXITY, VALUE CHAIN NETWORK AND QUÉBEC’S GLOBAL COMPETITIVENESS**

Yihan Wang, HEC Montréal, Canada
Ekaterina Turkina, HEC Montréal, Canada

In the era of industry 4.0, the increasing interconnectivity between firms, business sectors and regions has been accelerated by the ICT-innovation led digitalization. Channeled by boundary spanning multinational enterprises (MNEs), business activities taking place in geographically defined regions are integrated in the global value chain, a region’s global competitiveness is reflected in the complexity of inter-connected productive activities taking place in the global production networks. Hidalgo and Hausmann (2009) developed the measurements of the Product Complexity Index (PCI) and the Economic Complexity Index (ECI) to evaluate degree of knowledge exchange sophistication in various value-adding activities and the distribution of these activities taking place across different countries. Based on the rankings of PCI and ECI, we can have a clear understanding of the economic structure of different countries and their hierarchical position in the global production. However, for large countries like Canada, a unitary score of ECI is not sufficient to reflect the internal diversity of production activities. For instance, both strong in high-end manufacturing, Québec is the home of Canada’s large leading aerospace OEMs including Bombardier, Pratt & Whitney and Rolls-Royce Canada, while Ontario agglomerates numerous small and medium-sized suppliers in automotive machinery and ICT service providers. Such information cannot be fully reflected in the country-level ECI, while we can apply a province-level analysis of economic complexity to understand in what industries different provinces are good at, whether these regional-specialized industries take the hub position in the global value chain, and what types of external partnership these provinces should attract as complementary “pipelines” to bridge relatively isolated business sectors in the production space. We will take Québec as the first case study to provide an answer to these questions.
DOES PRODUCTIVITY VARY WITH ACCESSIBILITY? A FIRM-LEVEL ANALYSIS
Don Webber, Swansea University, United Kingdom

This article empirically assesses the association between firm-level productivity, measured using GVA, and eight different indicators of accessibility. Productivity data are complex and spatial productivity values for multi-plant firms are extremely problematic. Assessments of the association for single plant firms reveal limited empirical support for a relationship between productivity and accessibility in the UK outside of London and the South East. Delving deeper into these data and relationships reveals the need for more critical assessments concerning our ability to measure productivity, and this provides important insights into how we empirically assess the importance for productivity of agglomeration economies.

EVIDENCING THE BENEFITS OF CLUSTER PROGRAMMES – TOWARDS A FRAMEWORK OF EFFECTS
Emily Wise, Lund University, Sweden
James Wilson, Orkestra (Basque Institute of Competitiveness), Spain
Madeline Smith, Innovation School, Glasgow School of Art, United Kingdom

Since the 1990s regions and countries around the world have employed cluster-based programmes as part of their industrial, innovation and regional development policies. More recent years have witnessed a revival of cluster-based policies, as many regions have leveraged clusters in combination with smart specialization strategies, industrial modernization and internationalization efforts, as well as to address societal challenges. Cluster-based policies are expected to deliver not only strengthened knowledge-sharing and collaboration resulting in stronger firm-level innovation and productivity, but also more efficient and competitive regional innovation systems.

Although the use of cluster-based policies is widespread and expanding, there are no recognized norms for evaluation of cluster policy. Many evaluation approaches focus on isolated firm-level benefits and fail to capture the added value of collaboration and regional systemic change. The lack of evidence on how firm-level benefits are achieved and on the holistic effects of cluster policies limits understanding of impacts and policy learning.

In order to address this gap, the paper explores international evidence of the effects of cluster programmes. Through a review of academic literature and a comparative analysis of six cluster programme impact analyses in five countries, we find evidence for positive impacts of cluster programmes and identify similar types of effects across comparator regions. Based on the analysis, we propose a new framework of cluster programme effects and a set of indicators that can be used to structure cluster programme evaluations, enabling a better understanding of the benefits of cluster programmes, and strengthening international policy learning possibilities.

BUSINESS-FRIENDLY ECOSYSTEM AS AN ELEMENT OF ECONOMICALLY RESILIENT CITIES
Takashi Yamamoto, Takushoku University, Japan

Many regional cities in Japan were severely affected by the global financial crisis of 2008-2009 and remained stagnant for years after the crisis, while some cities recovered more quickly. Yamamoto (2017) examined official statistical data on commercial volume, manufacturing output, and employment in 813 Japanese cities between 2003 and 2013, and found that 6 cities regained the pre-crisis level of commercial industries, and that manufacturing industries in 14 cities grew more rapidly than the pre-crisis period. As a follow-up study in the research project on economically resilient cities in Japan, this paper portraits the characteristics of two of the cities that are identified as economically resilient.
resilient: Cities of Maniwa and Kasai. These cities have different industrial characteristics. Maniwa City focuses on forestry and forestry-related manufacturing and attracts national attention to its “small-scale endogenous capitalism”. Kasai City shows excellence in both commerce and manufacturing industries. This paper found that an element of economic resilience resides in business-friendly ecosystem, because both cities have had strong network among key performers such as innovative engineers, forward-looking public administrators, and supportive financiers. Having provided some insights on Japanese regional cities, this research has not yet examined the other sources of the recovery and economic resilience. Finding other secrets of success in the economically resilient cities is carried over to the next study, which will be presented next year.

BRANDS AND BRANDING: AN ANALYSIS OF THE EVOLUTIONARY DEVELOPMENT OF SPIRIT INDUSTRY CLUSTERS IN CHINA

Hui Yang, University of Hull, United Kingdom
David Gibbs, University of Hull, United Kingdom
Andy Jonas, University of Hull, United Kingdom

Since the 1980s the concept of industry clusters has been applied to the analysis of regional economic development, focusing upon the types of innovative activities shaping industrial organization. However, less attention has been paid to the role of brand development as a component of cluster strategy. Brand development is often regarded as an endogenous element of enterprise strategies. However, besides their economic function, brands and branding capture the complex nature of geographical processes shaping regional economic development. Branding involves not only the promotion of products, but also their production, circulation, consumption and regulation, processes which permeate society, culture, ecology and policy. This paper sets out to investigate whether brand recognition is an important regional development tool for spirit industry clusters in China, specifically exploring 1) The relationship between industry clusters and brands and branding; 2) brand recognition and regional identification; and 3) the role of brand identity as a comprehensive factor and regional recognition influencing the emergence and evolutionary development of spirit industry clusters/parks.

TO RISE OR TO DECLINE: THE IMPACT OF CHINA’S URBANIZATION ON AGRICULTURAL LAND USE EFFICIENCY

Qianyu Zhao, Peking University, China
Helen X H. Bao, University of Cambridge, United Kingdom
Zhang Zhanlu, Renmin University of China, China

China is experiencing a rapid urbanization progress and this progress has resulted in significant changes in agricultural land use. However, there is limited understanding about the relationship between the two primary changes occurring to China— the urbanization on agricultural land use efficiency. The goal of this paper is to understand this relationship in China using panel econometric methods. Our results show that urbanization is associated with a nonlinear relationship in agricultural land use efficiency. We also find that housing price negatively affects agricultural land use efficiency while GDP in the industrial sector, net income of rural residents per capita and agriculture population positively contribute to the production of agricultural land use. Our results, together with the links between urbanization and agricultural production imply that agricultural land use is highly linked with Chinese urbanization and the pressure of urbanization on agricultural land resources will remain high in the future.
Our research studies new planning spaces from two angles. First, it discusses how the contemporary planning paradigm contributes to the process that has been labeled as the “softening of hard spaces”. This means that typically old, well-established spaces with relatively hard (administrative) borders become redefined and treated in planning practice as increasingly soft ones, having fuzzier or at least more porous borders. Second, we discuss how, at the same time, new soft spaces – such as gateways, newly conceived cross-border supranational spaces and other "ad hoc" regional spaces – tend to become hardened through deepening institutional practices and discourses, and because of the often-emerging requirements to define what is included and excluded in such new structures/networks of spatial co-operation. These two simultaneous processes, the softening of hard spaces and hardening of soft spaces, are then taken together, and a conceptualization of new hybrid planning spaces – that are in-between hard and soft – is proposed. This conceptual opening, labelled as “penumbral” spaces/borders, is discussed in the light of new and old regionalism and through the interplay of relational and territorial thinking. We demonstrate the empirical validity of this thinking by scrutinizing in comparative way the transformation of North Ostrobothnia, an old-established sub-national space in Finland, and the evolution of Bothnian Arc, a relatively new soft space crossing the Swedish-Finnish border.
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