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Regional Studies Association

# **From Vulnerable Places to Resilient Territories: The Path to Sustainable Development**

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Annual Global Conference

Sunday 27<sup>th</sup> April - Wednesday 30<sup>th</sup> April 2014

Fábrica de Negócios,  
Fortaleza, Brazil

This volume has been compiled by  
Lesa Reynolds

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Welcome

We are delighted to welcome you to the Regional Studies Association Global Conference 2014, *From Vulnerable Places to Resilient Territories: The Path to Sustainable Development* and are very pleased that such a diverse and prestigious audience of academics, policy makers and practitioners are gathered here in the beautiful city of Fortaleza.

Organised in association with the Cedeplar - Centro de Desenvolvimento e Planejamento Regional at the Universidade Federal de Minas Gerais (UFMG) this event will comprise a vibrant mix of academic sessions and networking opportunities including plenary sessions, workshops, pre-conference excursions, a welcome reception and a gala dinner.

The conference will focus on paths, policies and ideas that can help strengthen vulnerable places and develop cohesive and resilient territories. In addressing such issues, this major international conference seeks to promote dialogue across disciplinary boundaries. We are therefore very pleased to welcome presenters and delegates from over twenty countries. The conference features papers from a wide variety of disciplines dealing with a vast range of ideas, cases, theoretical and methodological insights relating to sustainable regional and urban development. We warmly thank all those who will be contributing to the event for their preparation time and their ongoing commitment to the Association and to work in our field.

The RSA will be turning 50 in 2015 but innovations and constant change remains very much on our agenda. Two innovations have recently been launched— *Territory, Politics, Governance*. This journal provides a platform for articles developing theory and research in territorial politics and the governance of space. Issues of the journal will be available at the conference. In addition, the RSA has developed a new interdisciplinary open access journal *Regional Studies, Regional Science*. The journal welcomes submissions on regional issues in economics, geography, planning, political science, and related fields. With streamlined peer-review the journal accommodates research articles, shorter policy briefings and a new 'regional graphics' section, reflecting the growing importance of data visualisation in our field. Adhering to our longstanding publishing hallmarks of quality, methodological rigour and clear communication, we offer potential authors the opportunity to reach as wide an audience as possible through this open access publishing route.

Furthermore, 2014 will see the Regional Studies Association European Conference *Diverse Regions: Building Resilient Communities and Territories* held in Izmir, Turkey (15th - 18th June, 2014). Also in 2014, the RSA will again be a key partner in the European Commission and Committee of the Regions' European Week of Regions and Cities (Open Days) and deliver University Sessions and a high profile Master Class. Looking further ahead to 2015, the RSA has two exciting events planned with its European Conference *Global Growth Agendas: Regions, Institutions and Sustainability* in Piacenza, Italy (24th - 27th May, 2015) and the Global Conference 2015 in Hangzhou, China.

We hope that this event will encourage delegates from all backgrounds and disciplines to meet and exchange ideas, experiences and research agendas in a friendly and receptive atmosphere.

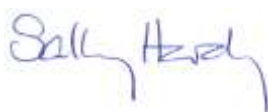
In closing this warm welcome to you we must thank our local organising committee for their hard work and invaluable support Marco Crocco, Pedro Amaral and Maristela Doria. In addition, we thank the sponsors of this event CAPES, Ministério da Integração Nacional, CNPq and FUNDEP and our plenary speakers and session chairs.

We wish you an informative, productive and above all, enjoyable conference and look forward to meeting you.

With all best wishes



Andrew Beer  
Chair



Sally Hardy  
Chief Executive



### **Cedeplar**

Cedeplar (*Centro de Desenvolvimento e Planejamento Regional*) is the Centre for Regional Development and Planning at the Faculty of Economics of Federal University of Minas Gerais (*Universidade Federal de Minas Gerais - UFMG*). It was founded in 1967 to accommodate research and graduate studies in Economics. Initially focused on regional economics, the Graduate programme in Economics has since then broadened its areas of interest with the inclusion of new fields of research, including the Masters and PhD programmes in Demography. This diversity is characteristic of its many lines of investigation, which include a broad variety of research areas within the two disciplines, Economics and Demography, in addition to urban and regional planning.

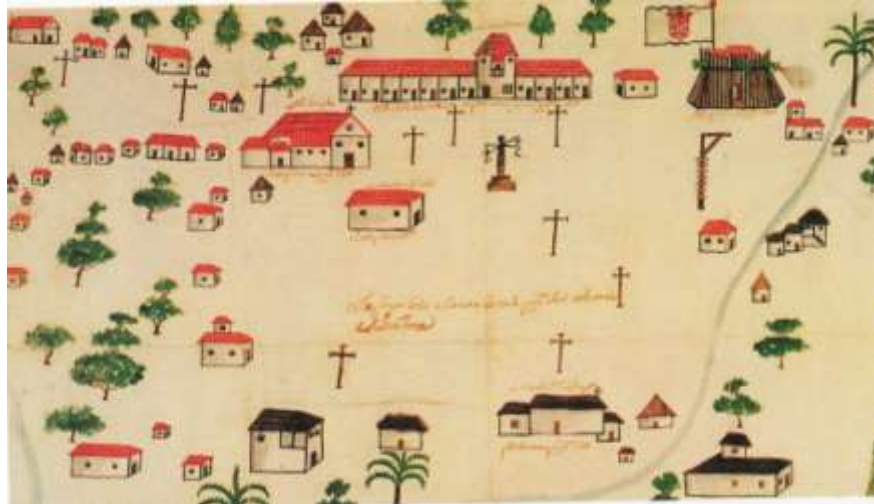


### **Universidade Federal de Minas Gerais – UFMG**

The origins of the university in Brazil go back to the 19th century, when it first appeared in the Republic as a continuation of a process that began during the Empire, with the opening of the first institutions of higher education. The first institution to later develop into UFMG was the School of Pharmacy in Ouro Preto, founded in 1839.

A group of patriots, the "Inconfidentes," who rebelled against Portuguese domination, conceived of the idea of a university in the state of Minas Gerais, which was founded as the Universidade de Minas Gerais (UMG) in 1927 in the state's capital Belo Horizonte. In 1965, the university was federalized and given its present name – Universidade Federal de Minas Gerais (UFMG). It is the largest federal university in Brazil, and offers 75 undergraduate degrees, 57 PhD programmes, 66 Masters programmes, 79 Post-Baccalaureate programs and 38 medical internship programs. UFMG has a population of 49,254 students.

## Fortaleza



Fortaleza in 1730. The Fort of Our Lady's Assumption is depicted in the upper right corner.

Fortaleza (Fortress) is the state capital of Ceará, located in Northeastern Brazil. With a population close to 2.55 million, Fortaleza is the 5th largest city in Brazil. Fortaleza is one of the three leading cities in the Northeast region together with Recife and Salvador. The city will be one of the host cities of the 2014 FIFA World Cup, for which Brazil is the host nation.

Beaches: Despite being one of the smallest States in Brazil, Ceará has one of the longest coastlines in the country. Fortaleza has some of the nicest urban beaches in Brazil, while Ceará has well preserved, nearly wild, unexplored beaches.

Food: States in the North-eastern corner of Brazil (Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas and Sergipe) have some geographical features in common, which reflects in the culinary. Except for a narrow strip along the coast, the soil of the Northeast is not fertile; the climate is semi-arid, with high temperatures and low pluviosity. This has always made difficult the cultivation of permanent cultures. Another major component of the North-eastern food is also related to the adverse climate conditions. Because of the poor soil conditions, for a long time the drier zones of Ceará were used for cattle. The cattle were sent to the Southern States, to be used both as food and as work force in the farms. One of its key food components is "carne de sol" (sun meat). The meat is cut thin and hung on lines, exposed to the sun to evaporate the water. Later, the dry meat is kept in salt to prevent the meat from becoming humid again. This is a process similar to the production of jerky. The meat produced by this process is called 'carne seca'. In the southern States, it is called "carne seca" (dry meat).

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## **PLENARY SPEAKERS ABSTRACTS**

### **MODERN DEPENDENCY AND THE INDUSTRY ENCLAVE: DEVELOPING COUNTRIES, DEVELOPMENT STUDIES AND THE WORLD BEYOND INDUSTRY CLUSTERS**

**Nick Phelps, University College London, UNITED KINGDOM**

Compared to the vast literature and theoretical development associated with the terms clustering or agglomeration in the past four decades or so, the term enclave has almost disappeared from use. Yet industry enclaves of all sorts have not disappeared. If anything, the conditions for industry enclaves have become more propitious in an era of neoliberal policy orthodoxy. In this paper I argue that the term enclave is ripe for analytical renewal not only in order to capture developments in the manifestations of the typical extractive industry enclave but also in order to better grasp the breadth of the secondary and tertiary industry enclaves that may presently be contributing to modern dependency. There is a diverse world of industry enclaves out there to set alongside that of industry clusters. The development studies literature and that on Latin American economies in particular has a rich tradition with the term enclave and can usefully be integrated more fully with regional studies and economic geography if the economic development implications of the likes of Export Processing Zones (EPZs), 'offshore' financial havens and territorial concessions as modern instances of industry enclaves are to be understood.

### **GOVERNANCE AND RESILIENCE IN LATIN AMERICA AND AFRICA: INTERGOVERNMENTAL OBSTACLES IN METROPOLITAN AREAS**

**Robert Wilson, University of Texas at Austin, USA**

Metropolitan areas have increasingly become key sites for wealth generation in many countries of the world. A feature of the urban landscape worldwide and accentuated by globalization, these conurbations span or encroach upon multiple jurisdictions of local government and embrace ever-larger populations. Despite the strong performance of many metropolitan economies, their spatial organization can exacerbate vulnerabilities associated with urban inequalities, resource sustainability and climate change hazards. Metropolitan wide planning and governance efforts could reduce the risk associated with these challenges. The question facing the metropolis is: how best to develop an institutional architecture of government and governance that can offer macro-level policy development and implementation across what is often a complex raft of individual governments, institutions, and agencies. This presentation will report on the findings of two research efforts: (1) to assess the effectiveness of metropolitan governance systems in four countries in Latin America and (2) to assess the capacity of urban governance systems in Africa to adapt to climate change hazards. For the federalist countries in Latin America (Argentina, Brazil, Mexico, and Venezuela), the forms, functions, political legitimacy and performance of the emerging metropolitan governmental structures are identified and factors explaining the progress, or lack thereof, are examined. In the Africa project, ten large cities were examined to determine sources of vulnerabilities to climate change hazards and the extent to which these cities were engaged in climate change adaptation. Despite differences across these two regions and in the focus of each research project, common challenges, if not obstacles, to metropolitan governance are observed. Despite a few promising exceptions, political systems, administrative structures, spatial disparities and limited power and resources of local governments tend to prevent the emergence of effective metropolitan governance systems that could address growing vulnerabilities.

**Jarle Aarstad, Bergen University College, NORWAY**

**Olav Kvitastein, Bergen University College, NORWAY**

**Stig-Erik Jakobsen, Bergen University College, NORWAY**

Classical economic theory emphasizes that economic development is a function of the supply and improvements of the utilization of resources (Solow, 1957), but more recently scholars have argued that variety in resources can further increase economic output (Glaeser, Kallal, Scheinkman, & Shleifer, 1992; Van Oort, 2004). Resource variety, also labeled as Jacobs (1969) externalities, can enable economic spillover and foster innovation, as knowledge and information sharing diffuses across a variety of industrial boundaries, recombining and angling ideas from different perspectives (Carlino, 2001). Accordingly, an economic region of enterprises operating in different industries is likely to have stronger economic spillover than a region of enterprises operating in the same industry, and studies from Italy and the Netherlands by and large support this argument (Boschma & Iammarino, 2009; Frenken, Van Oort, & Verburg, 2007). They find that related variety – i.e. regional industrial variety in which enterprises share certain similarities – enhance employment and economic growth (Boschma & Iammarino, 2009; Frenken et al., 2007), whereas unrelated variety – i.e. regional industrial variety in which enterprises share few similarities – reduces unemployment growth (Frenken et al., 2007).

In this paper we build on previous research and examine if related and unrelated industrial variety in economic regions of Norway is related to enterprise innovation. But in addition we analyze enterprise characteristics such as R&D intensity and -collaboration, and turnover's effect on innovation. We accordingly carry out a multilevel study examining both enterprise level characteristics, as well as regional characteristics. According to the resource based theory, an enterprise can be labelled as a bundle of distinct resources (Barney, 1991; Barney, Ketchen, & Wright, 2011), and we aim to compare the potential genuine effects of enterprises' own resources along with potential benefits from economic spillover stemming from regional resource variety. It is a matter of fact that economic development and employment stem from enterprise performance, but to our knowledge no study has so far aimed to compare and integrate these distinct level of analysis.

We analyze data provided by Statics Norway's latest survey, "Innovation in the business enterprise sector, 2010-2012", which is carried out biannually in collaboration with Eurostat. Innovation was measured as a dummy by requesting the respondents to indicate whether the enterprise during the last three years had developed new or substantially improved products, services, or processes of production, which is new for the enterprise and the industry where it operates. Altogether, we analyze innovation- and other enterprise characteristics from 6,588 Norwegian enterprises. Norway is divided into 89 distinct economic regions (Nuts 4 level), and related- and unrelated industrial variety was measured by modelling the normalized Shannon (1948a, 1948b) entropy from the enterprises' Sic-codes at level 2 and 5 within each economic region (cf. Frenken et al., 2007; Theil, 1972). We also control for regional population density. Linear and generalized mixed-effects multilevel analyses were carried out in Stata 13, which takes account of both regional- and industrial heterogeneity.

In line with previous research, we find that related variety is positively associated with enterprise innovation, but our perhaps most striking finding is that enterprises' R&D intensity has a strongly diminishing effect on innovation in regions with unrelated industrial variety. It thus appears that regional characteristics can have a substantial effect on enterprises' deployment of R&D resources. Our study altogether reveals that both enterprises' internal resources, along with economic spillover stemming from regional resource variety have genuine and interacting effects on innovative capabilities, and we discuss which implications this may have for enterprise management and regional economic policy.



## THE SPATIAL OUTCOME OF MODULAR PRODUCTION: ORGANIZATION OF THE WIND INDUSTRY IN BRAZIL

Markus Adrian, University of Hamburg, GERMANY

The wind energy industry is restructuring on a global scale. Due to challenging market conditions in their home markets and to resulting changes in the competitive environment in international markets, many established wind turbine generator (WTG)-manufacturers adapt their strategies. To focus on their core activities and to increase the efficiency of their value chains, WTG-manufacturers reduce in-house manufacturing of components and reorganize their product portfolio to enable a modular production based upon product platforms.

Van Hoek and Weken (1998, 42) showed that in the cases they investigated, “the implementation of modular production also involved a reconfiguration of the supply base”.

While due to their development context the value chains of European WTG-manufacturers were organized in a relational way (Lema et al. 2011), with manufacturers often relying on one supplier per component, today they are in fact broadening their supply base by using further established suppliers as well as by qualifying further suppliers for their needs.

Thus, established relational value chains of traditional (especially European) manufacturers are being transformed into modular value chains. This modularity of value chains goes hand in hand with a modularization of the products, which enables manufacturers to codify and transfer knowledge about the respective requirements. Suppliers on the other hand have a sufficient technology base and capabilities that allow them to produce for different customers (Gereffi et al. 2005).

While the development as well as the transfer of tacit knowledge benefit from – especially – spatial proximity, codified knowledge enables a transfer on a broader (e.g. national or inter-national) scale (Malmberg and Maskell 1997).

This gives rise to new organizational forms of the cooperation between manufacturers and suppliers on the one hand and between different location sites of these actors on the other hand and thus enables changes in the spatiality of production, especially in emerging markets.

In addition to that, political incentives as well as favorable wind conditions result in a growth market of the wind energy industry in Brazil. This demand, local content requirements and the lack of a second-tier supplier base led to the emergence of an ever more broadened manufacturing base of wind turbines and its components. In recent years several WTG-manufacturers (such as Vestas, GE Wind, Gamesa, Alstom or Acciona) and international as well as local component manufacturers (e.g. LM Wind Power, Gestamp, Tecsis) set up manufacturing facilities in the country to participate in and benefit from the expansion of the market.

This paper investigates the effects of the modularization of Global Value Chains (GVC) on the production structure in Brazil. This case was chosen, as there the current situation gives rise to an emerging wind energy manufacturing industry. Based on research about the location of manufacturers and suppliers in Brazil as well as on changes in the sourcing strategies of the international manufacturers, I look into the spatial and organizational effects on the production sites. Although mainly using a grounded theory approach I follow some basic Hypothesis:

First, different to the productions structure in Europe, where the industry grew spatially diverse, I expect the production sites of manufacturers to be close to the markets, since they are focusing on the final assembly of the product. Second, I expect the suppliers to set up production sites close to the manufacturers, as they are able to supply to different OEM. Third, I expect international suppliers to follow their customers and to locate close by. Fourth, I expect the knowledge transfer and the organization between manufacturers and suppliers happening between the respective headquarters, as the manufacturing sites are merely executing the production tasks, while R&D as well as strategic decisions are made in the HQs.

My research shows, how emerging markets can benefit from changes in GVC and how the new established production base is integrated in global organizations of the industry.

My study thus contributes to several fields. It contributes to the GVC discussion focusing on its organizational effects. It contributes to research on modular production as it investigates its emergence resulting from a transformation of GVC. It contributes to inter- and intra-company organizations as it investigates the role of HQs and of the production sites and thus connects Value Chain, Network and Cluster research. And finally it contributes to the discussion on the integration of emerging markets in the global industry.

*Gateway J*

## **RESILIENT GROWTH PATHS**

**Hamed Alhashemi, UNITED ARAB EMIRATES**

A fundamental research question in regional economic development is why some countries were able to diversify into new products, new industries and new clusters while others continue to face challenges to diversify? In this paper we provide a critical review of emergence and evolution of industrial clusters from the theoretical perspectives of evolutionary economic geography and knowledge based view as two essential foundation concepts to understand emergence and evolution of industrial clusters. We view an industrial cluster as a level of existence in regional economies that is composed of its own firms, products and industries. Knowledge, proximity, relatedness, and variety are presented as underlying factors for emergence and evolution of industrial clusters in regional economies. Further, the importance of knowledge, proximity, relatedness, and variety is threefold; first, it determines path dependency; second, it defines diversity; and third, it conditions creation of new growth paths. However, regional economies undertake different pathways on transforming the structure of their economies depending on existing accumulated knowledge that are embedded within firms, products and industries. Therefore, the nature and mobility of knowledge embedded within a regional economy e.g. component or architectural, embodied or disembodied, simplex or complex determines the branching mechanism of firms, products and industries hence emergence and evolution of industrial clusters. We then present the role of anchor government institutions, agencies and enterprises as agents for transformation of economic structure and creation of resilient growth paths in some regional economies. We conclude by pronouncing the implications for policy makers on shaping regional industrial and development strategies.

*Gateway A*

## **PRODUCTIVE RESTRUCTURATION IN THE CITY OF TOLEDO-BRAZIL: IS IT THE TIME FOR TECHNOLOGY, KNOWLEDGE AND INNOVATION SECTORS?**

**Lucir Reinaldo Alves, University of Lisbon, PORTUGAL**

**Eduarda Pires Valente da Silva Marques da Costa, University of Lisbon, PORTUGAL**

Since 1970 new forms of local base productive organization emerged in order to be alternatives to the dominant system. Among these new forms we can highlight the industrial districts, innovative milieus, learning regions, regional innovation systems, and innovative sectors/specializations. Authors as Méndez (1997), Méndez & Caravaca (1999), Marques da Costa (2000), Moulaert & Sekia (2003), Crevoisier (2003), Pike, Rodríguez-Pose, & Tomaney (2006) and Camagni & Capello (2012) highlight different paths for these new local responses models. In this background, many regions of Brazil showed a great development for having consolidated productive chains with several multiplier effects on the local environment. In this context, the main objective of this paper is to discuss the role of employment in innovative sectors and their relation with employment qualification structure and their contribution to productive restructuration. This discussion will be developed taking as case study, Toledo, a medium-sized city in the western region in the Paraná State, in southern Brazil, where big changes in the productive structure have been happened in the last decade. The present paper has also the ambition of determining to what extent the restructuring process was associated to

the expansion of industry and services with greater incorporation of technology, knowledge and innovation. Are these kinds of sectors the main important ones of Toledo? In the same way, it also seeks to ascertain to what point the main important sectors are composed with employment with high level of qualification and the evolution in the productive restructuration. The economy of Toledo, traditionally linked to agriculture, has diversified and excelled in the high technology and knowledge production, as the production of pharmaceuticals. The overall results show that the total population of Toledo was 68,885 in 1970 and with 78% of the population residing in the rural area and now increased to 119,313 in 2010 (an increase of 73% in the period) with only 9% of the population residing in the area rural. This population growth was accompanied by a change in the productive structure of the city and a regional development, an urbanization increasing and an increasingly internationalized. In the methodology, the variable considered was the number of people employed divided by economic activity sectors, obtained consulting the demographic censuses of IBGE (Brazilian Institute of Geography and Statistics) for the year of 2010. We will use two main steps: first, to identify the specializations will be used the standardized location quotient. Second: a new way of analyze the main specialization will be indicate using the census's microdata and other socioeconomic data will be used to characterize these sectors. A profile of Toledo city will be made presenting the specialization profile and the performance of the socioeconomy, and we can expect to show as the process of productive change was reflected in the composition of the labor force in terms of qualifications and innovation. In order to verify the following objectives, the paper adopts the following structure: the first part corresponds to this introduction; the second part develops a brief literature review; the third part, in addition to the methodology, presents the study region; the fourth and fifth parts develop the analysis, and the last part of the paper sums up a brief set of conclusions.

*Gateway M*

## **EXAMINING THE ROLE OF 'INFORMAL GOVERNANCE' IN SHAPING INTERGOVERNMENTAL RELATIONS**

**Sarah Ayres, University of Bristol, UNITED KINGDOM**

The aim of this paper is to examine how 'informal governance' is shaping inter-governmental relations between central government and localities in the UK. Informal governance can be defined as a means of decision making that is un-codified, non-institutional and where social relationships and webs of influence play crucial roles. The issue of informality in policy making is particularly timely as global nations and cities seek to manage multifaceted policy problems within contested, complex and uncertain environments. This development has prompted a new style of political leadership - one that relies less on bureaucracy and formal structures and more on networks and informal relations. In particular, this paper will examine the impact of informal governance on both the efficiency of decision making and its impact on democracy. With regard to the former, it will examine the contribution informal governance can make to policy problems which cannot easily be solved by traditional government institutions. In the case of the latter, it will explore whether informality weakens transparency, accountability and legitimacy by undermining traditional (more formal) administrative structures. At a more general or global level, this paper raises questions about the complexities of inter-governmental relations and decentralisation by exploring the interplay between formal and informal structures and processes. To some extent researching informal governance is an attempt at studying the invisible or at least the opaque. Research in this field is therefore methodologically testing. However, it remains important to capture informal governance phenomena that are often regarded as elusive or are simply ignored in policy analysis. In doing so it challenges the paradigm that assumes the dominance of traditional forms of governance in shaping inter-governmental relations.

## **ARE PERIPHERAL REGIONS HOMOGENEOUS? FROM REGIONAL INNOVATION TO SMART SPECIALIZATION EVIDENCE FROM PARÁ (BRAZIL) AND GALICIA (SPAIN)**

**Ana Paula Bastos, Universidade Federal do Pará, BRAZIL**

**Maurício de Aguiar Serra, Campinas State University UNICAMP, BRAZIL**

**Manuel Gonzalez, University of Santiago de Compostela, SPAIN**

**Ana Guerra, University of Santiago de Compostela, SPAIN**

Is it viable to promote innovation in peripheral regions? Are there similarities between different peripheral regions that seek to stimulate innovations, transforming their economies and, consequently, reach another level of socioeconomic development? What are the obstacles and challenges of these backward regions to implement a regional development policy based on the smart specialization approach? This article aims at addressing these questions by using two distinct peripheral regions, Pará (Brazil) - located in the Amazon region - and Galicia (Spain), as case studies. Both regions not only have a slow growth and difficulties in following the same pace of developed regions, and these features resemble Myrdal's notion of dependency, but also import more technological products than export, which fits very well within the Krugman's notion of center-periphery. Indeed, the economic activities of these two peripheral regions are still connected with the use and exploitation of natural resources and the development of techniques for processing and production that occur unevenly in time and space. In addition, the indicators of Science, Technology and Innovation (S,T&I), such as expenditures on research and development (R & D), the number of patents and the percentage of researchers in the population, of Pará and Galicia clearly show that these regions are well below the averages of their respective countries, even though Galicia present a regional innovation system more developed than Pará. Foray et.al (2009) say that despite the fact that economically backward regions receive greater pressures on their natural resources and land use and suffer not only from social and territorial segregation, but also from social and geographical isolation, the geographical features may influence the strategies of regional development. In a more static vision of the regional science regions are described and analysed by the general equilibrium mechanics where the differences in productivity and income are the relevant aspects in differentiating regions. In a dynamic perspective of development local features, institutions and specific characteristics are taken in account when analyzing differences and discussing policy decisions. At the same time the institutional framework and local absorptive capacity influence the innovation assimilation and thus the innovation process. As a consequence, there are countries and regions in which the development process and adoption of innovations are more intense, which provides increased productivity and hence the achieving of greater competitive advantage over its competitors. A new regional approach, based on the concept of smart specialization, emphasizes that regions, instead of adapting models from more innovative areas of knowledge and also of carrying out studies on advanced basic research, should rethink their activities related to endogenous change in innovative ways. Based on the potential of this concept for regional development, the European innovation policy for 2020 is encouraging that lagging regions and outside of innovative clusters identify opportunities and establish local priorities. Beyond territorial and socioeconomic identity, the historical routes, cultural heritages and local capabilities are crucial to regional development strategy insofar as the preservation and importance of cultural and productive assets, conceived in an innovative and complementary way, would be a very good way of providing improvements in regional development patterns as well as of avoiding all dispersion of resources and, above all, the misuse of them. We analyse data from the 1990's onwards reflecting effects of policy making towards development; Spain's entrance in Europe and post dictatorship in Brazil. We investigate regions dynamics through a reduction of factors that are important to explain innovation tendencies and approaches to smart specialization. As a complementary analysis we visualize the changing in innovation factors through salter graphs (usually used for GDP disparities) looking for the degree of regional disparities to the national tendency.



## CAUSES OF DECLINE OF INDUSTRIAL SITES

Jasper Beekmans, Radboud University Nijmegen, THE NETHERLANDS

Erwin Van der Krabben, Radboud University Nijmegen, THE NETHERLANDS

Karel Martens, Radboud University Nijmegen, THE NETHERLANDS

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Every city is affected by processes of change, fueled by trends or structural (economic) change. There are many examples of policies that cities develop to adapt to the problems that arise with these processes. Some of these policies are successful, whereas other cities are not able to counter the effects of change and experience heavier forms of urban decline. These phenomena are studied extensively in the literature, both from a real estate market and urban land use perspective. At a lower level, individual urban areas may experience similar problems. Trends or structural economic change might affect the way certain areas in the city are used, for example leading to a loss of population for residential areas, a diminishing number of visitors and the related closure of shops in the inner city or the loss of jobs and moving out of companies in business areas. There are many studies related to decline, particularly on two topics: the effectiveness of policies aimed at countering the negative external effects of decline (such as the designation of Tax Increment Financing districts and Enterprise Zones) and the question whether the most distressed areas are targeted by these kinds of policies. However, the question what causes the decline of urban areas is relatively understudied.

In this paper, the focus is on a particular, little researched type of urban area, experiencing problems related to decline: the industrial site. Rapid urban decline of industrial sites is a problem in the Netherlands, where policies that include large public investments are used to counter the effects of decline. Although there are many qualitative studies into the phenomenon, the question what causes decline of industrial leads to more understanding of the process of decline of industrial sites in specific and urban areas in general and could be useful for more efficient public and private investments to counter the problems that are related to decline.

Logistic regression is used on a sample of over 2000 industrial sites in the Netherlands for the period 1997-2008 to find the shared characteristics among industrial sites that are experiencing the process of decline. The findings indicate that decline is a problem for industrial sites throughout the whole country, from economic core region to peripheral regions. The types of businesses that are located at an industrial site significantly influence the chance of an industrial site being declined: mixed use industrial sites are much more likely to decline than industrial sites that are dedicated to one type of business, also if this concerns manufacturing. Environmental issues are important as well: the presence of companies that have a potentially large impact on the environment adds significantly to the chance of experiencing decline. Interestingly, the growth of number jobs and number of companies on an industrial site does not significantly add to the chance of experiencing decline, leading to a theme for further research: what problem does the decline of industrial sites actually pose?

## REORDERING THE TERRITORY OF CONSTITUENT PARANA POST 1988: ANALYSIS INFRASTRUCTURE'S GOIOXIM

Liamar Bonatti Zorzanello, Universidade Estadual do Centro-Oeste - UNICENTRO, BRAZIL

The creation of municipalities from the promulgation of the Federal Constitution of 1988 was boosted by decentralization of regulatory process in favor federation's states and rising fiscal transfers granted to municipalities, coming to reorder the internal political- administrative borders of Brazil. Attracted by these incentives, the Brazilian territory has undergone several changes in its municipal grid, freeing over 1,431 new politico- administrative units, between the period 1988 to 1996, when there was the enactment of a new amendment, imposing new requirements for performing processes emancipatory. At this time, Paraná created 81 new political- administrative units, including the municipality of Goioxim, in the center - south of the state. Significant proportion of municipalities in its surroundings were also elevated to the same position since 1988 and have similar characteristics, such as the most people living in rural areas, where the base of the economy

is agriculture, urban centers have their particularities field, such as the existence of farms on the perimeter of the city and/or creation of small animals; cities with serious deficiencies in infrastructural sector and job creation, among others. Goioxim integrates the geographic microregion of Guarapuava along with eighteen other municipalities, where eleven were emancipated through the subsidies offered by the Federal Constitution of 1988. But, what brings this study to opt for examining Goioxim is that, in addition identical to other economic, infrastructural and social characteristics, is located in an area that just focuses its development and integration into network whit other municipalities in Paraná and also with other States. Thus, efforts will be made - to show how power relations launched on the territory can potentially benefit the municipality, but this means the need of to govern for and to the people and not only benefits a certain social segment. Finally, another point to be discussed and suggested by this study, refers to the creation of a plan of municipal infrastructure, which should underpin the governance of investments and favor more emergent needs, to meet not only the particularities of the urban center, but contemplating the inland area. The increase in top the size of districts or municipalities merging them is one of the factors that most contribute to the redevelopment of a state or country. It is true that for many of the districts involved in the emancipation economic and social development, but in another cases, it is perceived that such a process was imbricated by political and electoral interests. At present, this issue is relevant, considering that is being processed at the Federal Assembly, a Project of law that needs to reformulate the requirements of the Supplementary Amendment of 1996, loosening them and making easier the creation of new municipalities in Brazil. So, the question is: Is necessary the creation of new political-administrative units in Brazil? This will entail a burden or bonuses to States and Union? Such, emancipation meet the aspirations of the local population or the political interests of a particular social group? And finally, how will be the infrastructure of these new municipalities? Will are these apt to become self-employed?

#### *Gateway D*

### **Piõnta Sonas! How Pubs Enhance Community Cohesion, Economic Activities and Sustainable Development in Rural Ireland**

**Ignazio Cabras, Newcastle Business School, UNITED KINGDOM**

**Matthew Mount, Kent Business School, UNITED KINGDOM**

The traditional importance of public houses in the Irish culture, economy and society is widely acknowledged and has been analysed by a number of studies (Maguire 2006, Munoz et al 2006, Patterson and Brown 2009). Even more, pubs located in rural and remote areas represent vital and essential networking places for those communities located in areas disadvantaged with regard to major railway routes and road connections. For these communities, pubs play an important role in enhancing and stimulating socio-economic activities inside communities, such as business activities, volunteering organisations and charities, and leisure services (Cabras and Reggiani 2010).

Despite the importance of these places, a number of sources indicate a progressive decline of pubs in Ireland during the past ten years (Maguire 2006, Myers 2008, Foley 2011). Figures provided by the Central Statistical Office (CSO) and reported by Smith (2012) indicate that the decline of pubs has determined the closure of about 1,000 businesses, with about 5,000 jobs lost in Ireland in 2012. The causes of this decline are many and diverse: the result of progressively tough drink-driving laws, rising costs and alcohol duties, the increased popularity of home entertainment, the smoking ban.

In the rural Irish context, the decline of pubs significantly affects local communities as it deprives them of the only places they have for social engagement and communal activities. Probably more significantly, the decline of pubs determines the vanishing of many jobs, part-time and casual jobs in particular. Since pubs frequently work as selling hubs for local producers, which use them for placing their products (Cabras 2010), they have an impact on the creation of social capital, intended as the ability to access and mobilise support and help from friends and associates (Putman 1995).

The aim of this paper is to explore the impact of pubs on community cohesion, economic development and wellbeing in rural areas of Ireland. In particular, the paper aims to analyse the current pattern of procurement

and employment associated with pubs in the Irish countryside and to investigate its impacts upon supply chains with regard to sustainable development. The paper also seeks to examine and evaluate how pubs function as incubators for a number of initiatives (e.g. cultural, volunteering or business initiatives) which involve residents living in rural communities. Therefore, the study presented in this paper targets two areas of policy-related research that have until now been considered as separate issues: the assessment of the impacts of pubs on local economies and the mapping of procurement processes within rural areas.

The authors present findings from analysis conducted on a unique dataset comprising information collected with the use of a survey questionnaire, by applying statistic and econometric techniques. These findings are further corroborated by information gathered from focus groups with residents and from interviews with pub managers in rural Ireland. Results increase the level of knowledge about the formation of social and economic capital in the Irish countryside, and represent an excellent instrument for practitioners and policymakers in order to develop future policies and strategies.

*Gateway F*

## **MIGRANT ENTREPRENEURS AND LOCAL NETWORKS IN ITALIAN INDUSTRIAL DISTRICTS: OUTSIDERS IN THE CLUB-HOUSE?**

**Jacopo Canello, SOSE, ITALY**

The globalization of markets and production activities is rapidly reshaping the structure of an increasing number of local economic systems: in this evolving context, the recent literature on regional resilience suggests that the survival chances tend to be higher for local firm populations showing higher adaptive behaviour. The challenges raised by the global scenario are particularly severe for Marshallian industrial districts, where the simultaneous action of a number of centrifugal and centripetal forces is having a profound impact on the local economic and social networks. Understanding the nature of these forces and interpreting their effects on local evolution is a relevant question with key policy implications.

The aim of this work is to investigate the evolutionary dynamics of Italian industrial districts, focusing on a centripetal force that is rapidly transforming the internal structure of many local networks: migrant entrepreneurship. During the last decade, Italy has experienced a proliferation of immigrant-owned businesses in several sectors of the economy. Interestingly, in manufacturing activities this presence tends to cluster inside industrial districts, where the survival chances of a new firm are heavily dependent on the ability to accumulate social capital through interaction with the local network. Rather than representing a threat, the presence of migrant entrepreneurs can be beneficial for the district when the local population succeeds in assimilating the newcomers into the network, while preventing opportunism and free-riding behaviours: this process enhances the creation of a diverse environment that favours accumulation of diverse know-how and exploitation of the global connections established by the new transnational entrepreneurs.

The analysis presented in this empirical work provides evidence of the survival and performance patterns of indigenous and migrant firms in Italy, estimating a proportional hazard model on a panel of manufacturing sole proprietorships established between 2002 and 2011. The investigation also evaluates the performance of a sub-sample of firms survived after the start-up period, in an attempt to identify the conditions under which the "district effect" is exploitable by migrant firms and whether this benefit is compatible with the stability of the local firm population. The analysis is implemented on a sample of micro and small firms extracted from the Italian Ministry of Economics and Finance Annual Survey (Studi di Settore), focusing on three manufacturing industries where the presence of both migrant firms and industrial districts is particularly relevant. The main advantage of this data source is that it includes a significant number of micro businesses excluded from the most commonly used firm-level databases, thus unveiling a relevant grey area where immigrant entrepreneurship has mushroomed in the recent past.

The empirical investigation shows the presence of a wide differential between indigenous and migrant firms, resulting in lower survival rates for the latter: this gap appears to widen inside industrial districts. The negative effect is evident also in terms of worse performances and tends to persist even among the most talented

entrepreneurs who survive after the start-up period. Although the reasons of this pattern cannot be identified by the present work, the findings suggest that industrial districts are missing the opportunity to create a diverse and modular environment, thus limiting their ability to adapt to future shocks. The scope for top-down policy measures to enhance this process is limited, considering the self-organizing nature of industrial districts: therefore, the governance structure needs to be rearranged from the bottom in order to accommodate this changing process.

*Gateway J*

## **ECONOMIC GROWTH IN BRAZILIAN MICRO-REGIONS: A SPATIAL PANEL APPROACH**

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The aim of this study is to identify the determinants of economic growth and analyze the dynamics of income considering a panel of 1970-2010 with 522 Brazilian microregions. Based on the theoretical model of Mankiw-Romer-Weil with the spatial expansion proposed by Ertur and Koch (2006), we employed a Spatial Durbin Model (SDM) with fixed-effects, an empirical strategy that simultaneously considers the spatial dependence and specific heterogeneity of each economy. Added to this the estimation of direct impacts and indirect impacts (spillovers) of the determinants of regional growth. The results indicate a strong spatial dependence among Brazilian microregions, moreover, there is evidence that both investment in physical capital and investment in human capital matter not only for the growth of the economy itself, but also for the growth of neighboring economies.

*Gateway I*

## **HEALTH, TECHNOLOGICAL INTERDEPENDENCE AND ECONOMIC GROWTH IN BRAZIL**

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This paper presents a simple model in which health plays a explicit role in shaping economic growth in a number of ways. First, health may increase output through direct effects on total factor productivity and indirect effects on the acquisition of human capital. However, these effects are counterbalanced by increased population due to health improvements which leaves the effect on per capita output undefined a priori. We additionally assume that the effects of health improvements in the total factor productivity of one region are carried across borders through knowledge spillovers. The magnitude of the influence of health to growth process is then estimated using a spatial econometric specification motivated by the theoretical framework. Using decennial data for Brazilian municipalities between 1991 and 2010, we find non negligible spillovers and a positive relation between health and economic growth during the period of interest.

*Gateway SSB*

## **FINANCIAL INCLUSION FOR THE POOR IN BRAZIL: IS THERE A REGIONAL CASE?**

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In the last decade, Brazil has been going through a more inclusive type of economic and social development. The reduction of inequality has been the main focus, which has been granted by public policies such as the

income transfer program Bolsa Familia and consecutive real increases in minimum wages have promoted new opportunities for the poor. The increase in income has been allowing greater access to consumption markets for a large group of people that were historically excluded from it. However, for the specific case of the financial markets, inclusion has been a smooth process.

The financial market in Brazil has also taken advantage of the spur in economic development and growth of the last decade. Low levels of unemployment, rising average income and reductions in inequality have promoted contrasting results. On one side, people are now able to access financial services which lead to better possibilities, such as investment opportunities, improved social security, income stability and so on. With the correct approach, these services may improve overall economic and social conditions for the country. On the other side, the lack of information and education regarding the use of financial services can impose serious difficulties, especially for low income individuals who can now access these markets. The main problem is that, since the level of financial education is low, people in general would not be able access and reap all the benefits coming from the myriad of financial services that are now being offered to them. This would be especially true for the low income population. Following the international trend, the Brazilian government has been promoting a financial inclusion policy in order to confront the abovementioned problem. The main target of such policy is the low income population (poor and extremely poor), especially aimed at those who are contemplated by Bolsa Familia program of conditional cash transfer. Basically, the financial inclusion policy aims at promoting access and use of financial services by means of two main fronts: financial regulation and education. Financial regulation acts upon the industry by controlling the expansion of the physical network and the type of services and products being offered to specific targeted groups such as the poorest, which has been historically marginalised by the formal financial markets. Regulation is increasingly aimed at stimulating and supervising the creation of financial services specially tailored to the low income population.

Once the supply of financial services to the low income population is warranted, financial education can play a role. The main hypothesis is that the targeted population has low financial literacy levels that, together with a historically limited or inexistent use of financial markets, can be amended by financial education initiatives. In an ideal world, with the implementation of the two strategies, a financial inclusion policy would be successfully developed.

However, as important as such policy strategies may be, there is virtually no discussion about its regional characteristics and effects. Brazil has noticeable regional differences, as much in income as in education and access to differentiated markets. Therefore, a financial inclusion policy must first acknowledge such differences in order to raise its efficiency and reach.

This paper objective is to critically analyse the financial inclusion policy in Brazil, especially in what regards its spatial limitations. Our main point is that the kind of policy being implemented is not only completely inadequate, since it promotes very negative outcomes such as over-indebtedness and predatory actions by the financial system, but it has also very limited results because it does not take the regional differences into perspective. The main argument is that financial education is incapable of increasing financial literacy or to act positively over the decisional process of the financial services' consumer because it is implemented homogeneously over a very different set of regions. Therefore, in order to guarantee that financial operational risks will not be completely transferred to low income consumers, it is necessary a sort of financial regulation that can rule the financial market regional structure and curb predatory practices.

The paper is structured as follows. The first section introduces the conventional arguments over financial inclusion. The second section critically appreciates, from a theoretical standpoint, the main points of what are described as financial inclusion policies. The objective is to stress the lack of a more detailed regional analysis that could improve the outcomes of financial inclusion policies. Following this initial appreciation, the third section gives a brief description of the financial inclusion policies in Brazil, showing the problems arising from taking a conventional, non-regional view on the matter for granted.

**Lars Coenen, CIRCLE, Lund University, SWEDEN**

**Teis Hansen, CIRCLE, Lund University, SWEDEN**

The last decade has seen a burgeoning academic interest in the topic of sustainability transitions (Markard et al., 2012). However, until recently, spatial dimensions of sustainability transitions have been largely ignored in this literature (Smith et al., 2010; Coenen et al., 2012). Why do transitions occur in one place and not in another? How do transitions unfold across different geographical contexts? What is the importance and role of spatial scale for transition processes? These questions, which can be seen as typical for a geographer's perspective (Scott, 2000), remained more or less below the radar in the pioneering work on sustainable transitions. While key initial contributions were made in the specific area of urban sustainability, city infrastructures and low-carbon transitions (Hodson and Marvin, 2009; Bulkeley et al., 2011), a broader, more general engagement with the geography of transition, similar to that on the geography of innovation (Asheim and Gertler, 2005), was lacking. Similarly, the focus on high-tech and service industries following from the dominant post-industrial, post-material discourse in economic geography has led to a lack of engagement with environmental issues from this side as well (Angel, 2000) even though interest seems to be picking up more recently (Economic Geography, 2011; Patchell and Hayter, 2013).

Within most recent years, however, a number of contributions have been made that outline in broad terms possible contours of a research agenda for the geography of sustainability transitions (Lawhon and Murphy, 2012; Raven et al., 2012; Truffer and Coenen, 2012; Nevens et al., 2013). Moreover, there has been a poignant interest in geographical aspects of transitions at the latest three international conferences on sustainability transitions in terms of special sessions, thematic discussions and paper contributions (Lund, Copenhagen and Zurich). In addition, numerous empirical studies have been made that in various ways explicitly dealt with and partly also theorised about transitions' spatial aspects, including special issues in *European Planning Studies* (2012) and this issue.

In light of this increased attention, research on the geography of sustainability transitions is developing and expanding rapidly with contributions from many fields, using different approaches. This heterogeneity has both advantages and disadvantages. On the one hand, cross fertilisation of insights from multiple traditions and disciplines avoids short-sightedness and cognitive lock-in and provides scope for analytical refinement and conceptual renewal, especially bearing in mind the interdisciplinary legacy of the transitions literature. On the other hand, the importation and translation of 'external' ideas may be criticised for often resulting in rather haphazard and fuzzy conceptualisation (Lagendijk, 2006). Different approaches assign dissimilar meanings to similar terms or similar meanings to dissimilar terms. This can be illustrated by various seemingly geographical metaphors found in the MLP framework, such as 'landscapes', and the 'local-global' distinction in niche development dynamics (Geels and Raven, 2006). Though initially introduced in the transitions literature without an explicit spatial connotation, these concepts are easily mistaken for having a quite specific meaning within geography (Bridge et al., 2013).

Similarly, conceptualisations of space and place may create considerable ambiguity when imported from its origins in geographical thought into a sustainability transitions framework. Different readings of different parts of the geography literature may point to rather dissimilar meanings of key notions used to analyse and explain spatial phenomena and processes. Given this internal heterogeneity it is not entirely clear what a geographical perspective on sustainability transitions implies and how it can be applied in empirical studies. Without claiming to be conclusive or definitive, there is at least a need to clarify the position of geographical thought in different contributions which have adopted an explicitly geographical perspective to understand key spatial issues of sustainability transitions.

Such a review is needed in order to synthesise recent years' intensive research on the topic and to assess whether more or less coherent results can be identified, lessons can be drawn and future research can be identified. Similarly, it would be useful to identify opposite or conflicting findings that require further investigation and scope for cross-overs between different studies. A well-known weakness of many geographical analyses is that they celebrate the particular and focus on highly idiosyncratic case stories of specific regions and localities. It is therefore a challenge for spatial analyses of sustainability transitions to

identify and formulate insights with theoretical purchase beyond the narrow domain of geography of transitions (Geels, 2013). The objective of this review is two-fold. First, to make explicit how in recent geographical studies of sustainability transitions space has been conceptualised and second, to take stock with the theoretical and empirical insights which have been achieved so far and their internal coherence.

*Gateway E*

## **SPATIAL ASSOCIATIONS BETWEEN ENVIRONMENT AND CRIME: APPLICATION FOR BARS AND CHURCHES**

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This paper seeks to analyze the spatial association between some environmental characteristics and the occurrence of criminal events, particularly homicides. Specifically, the focus of analysis is on the spatial relationship between violent crime and establishments that sell alcoholic beverages as well as churches, in city of Recife, Brazil. Using the methodology of spatial cluster detection F-function and Scan Statistics, the results suggest the strong geographic association between bars and churches and crime events. The data were obtained from the Secretaria de Defesa Social de Pernambuco and the Cadastro Nacional de Endereços para Fins Estatísticos (Census 2010). The findings from F-Function show that there is a clustering process between the presence of bars/restaurants and homicides events. In addition, it was detected a pattern of concentration between churches and crimes. However, there are differences in the agglomeration of homicides around churches, varying on the type of institution. Generally, when we analyze in a disaggregated way, it is not possible to detect cluster of homicides around the Catholic and Other churches, while for Protestant there is the presence of agglomeration of crimes. Analysis of Scan Statistics shows that areas with lots of bars around the homicide are different from those with a concentration of churches around the violent crime. In particular, the results suggest that central area of Recife is the most likely cluster of bars. Notice that the regions identified with bars around the violent crime have peculiar characteristics in terms of their physical, structural and socioeconomic organization. On the other hand, the north of Recife is the region where is possible to find violent crime surrounded by Protestant churches. The socioeconomic analysis revealed that the social organization degree is weak and also the social control is not effective. The degree of association between bars/ Protestant churches and violence are moderated by the social organization.

*Gateway K*

## **INDUSTRY MOBILITY AND CITIES AGGLOMERATION FORCES: AN ANALYSIS OF THE DYNAMICS AFFECTING THE INDUSTRIAL CONCENTRATION IN BRAZIL**

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From the late 1930s, Brazil initiates the formation of its industrial economy, which has been occurring in an extremely agglomerated form in the Southeastern Region especially São Paulo and Rio de Janeiro. Already in the 1970s, about 45% of the workforce in the metropolitan region of São Paulo was employed in the manufacturing industry. In this period, about 80% of the industrial transformation value and 70% of the workforce in the industry was located in the Southeastern Region. Together, the metropolitan areas of Rio de Janeiro and São Paulo concentrated more than 40% of the workforce of the Brazilian industrial production.

At the turn of the 1970s there is the beginning of a process of spreading of productive industrial activity, primarily for the state capitals of the Northeast and South and then to medium-sized cities. The withdrawal of the industry of traditional agglomeration regions proved to be a persistent phenomenon so that the Southeast reduced by a quarter its share in the industrial market between 1970 and 2011 and the metropolitan regions of São Paulo and Rio de Janeiro, over these 40 years, lost more than 50% of its stake in the industry.

This work advances towards understanding this industry output process from traditional industrial regions and major population centers. From a quantitative empirical approach with secondary data about manpower, this research seeks to dialogue with the works applied to the Brazilian industrial economy that diagnose its dispersal and analyze the locational decisions of firms. Using as a reference the methodology developed by Dumais, Ellison and Glaeser at the article Geographic Concentration as a Dynamic Process, this paper seeks to understand the process of industrial decentralization from a dynamic approach, as a product of the formation of new industrial centers, the decline of old specialized regions, the emergence of new plants and the closing of companies.

The empirical analysis over the past two decades confirms the deconcentration process of industrial activity in Brazil, but points to a slowdown in this trend. Comparison with studies using the same methodological framework shows that industry in Brazil is more concentrated than in the U.S. markets, the UK, French and Irish markets, but less concentrated than the Portuguese industrial activity.

This work confirms the diagnosis of other studies that point to different patterns of sectorial concentration. As expected, the extraction industries is considerably more concentrated than those of manufacture, since they depend on the location of the raw material to be extracted. When tackling only the textile and apparel sectors, the reverse occurs: these sectors are considerably more decentralized. Selecting only the high-tech sectors, it appears that they are also more concentrated than all sectors together.

The rates of deconcentration are then decomposed between the effects of reversion to the mean and dispersion, in order to highlight the industry mobility. What occurs is that the mobility is much higher than the deconcentration rates show. The effect of reversion to the mean is four times greater than the total effect and considerably larger than the dispersion effect, being strong enough to result in a reduction of over 40% in the Brazilian industrial agglomeration every five years. On the other hand, the dispersion effect is responsible for an increase of more than 30% of the agglomeration rates for the industry as a whole every five year period, so that the total change observed in each of these periods is the product of the difference of these two contrary movements. These observed values are much higher than those found for the U.S. economy.

By analyzing the effect that the creation of new companies, the closure of running firms and the expansion and contraction of the workforce, it appears that the birth of companies contributes to the deagglomeration of industrial activity, because these events occur in greater quantity outside the centers where there is already overcrowding. On the other hand, companies are less likely to quit their activities in regions that have a larger share of employment than expected in the industry. In other words, the closure of businesses, as found also for the U.S. market, contributes to industrial agglomeration.

For expansions and contractions in existing companies, both event types contribute to the effect of reversion to the mean and industry deagglomeration. Thus, the growth rates of firms are lower and reduction are higher in regions with a high concentration of manufacturing jobs. Overall, this result indicates that new firms are more likely to emerge out of the current centers of industry agglomeration and growth of existing businesses is faster away from these centers; however, the chance of closure activities is also higher in peripheries of industrial agglomerations.

*Gateway SSB*

## **TRANSFERRING TERRITORIAL GOVERNANCE IN THE EUROPEAN UNION: WHY, WHAT, HOW AND THROUGH WHOM?**

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In a globalising world, many countries and regions face similar challenges. As a result, practitioners, policy- and decision-makers increasingly look for policy solutions, ideas and 'good practice' examples from other contexts, seeking to adapt them to their domestic contexts and to draw from the successes (and avoid the mistakes) realized elsewhere. This learning attempts are often supported by the activity of supranational and international organizations, that favour networking and exchange of experiences among various communities



of actors. However, despite its growing popularity, the field of policy transfer is still characterised by the high degree of complexity that derives directly from the significant number of variables at stake (Dolowitz & Marsh, 2000).

Such a complexity gains an additional dimension when it comes to the transferability of territorial governance, which is not a policy per se, rather the result of a complex process integrating several, highly context-dependent policy fields. On the other hand, in time of restricted public budget, stakeholders dealing with territorial development processes are more and more in need of practical advice and good examples, providing them with inspiration on how to make policy actions more effective in their daily practice and how to exploit synergies through the vertical and horizontal co-ordination of public policies, programmes and projects.

Aiming at shedding some light upon this matter, the contribution presents a conceptual framework developed within the ESPON project TANGO – Territorial approaches for New Governance (ESPON, 2014; Janin Rivolin & Cotella, 2014), that may be of some value in understanding the process of policy transfer in the domain of territorial governance in the European Union. In particular, building on the elements that characterise the overall EU territorial governance pattern of change (Cotella & Janin Rivolin, 2010), distinct modes of policy transfer are conceptualised, explaining as many ways through which a certain (good) practice in a given domestic context can reach other context(s) that may apply it. These modes (institutional, technical and dialogic) target different stakeholders groups (practitioners, policy and decision makers) active at both the EU and domestic levels.

Once agreed the reason why the transfer of elements triggering virtuous territorial governance processes from a Member state to another may contribute to the diffusion of a territorial approach and, in turn, to the achievement of EU territorial cohesion, the presented framework is expected to help in individuating what to transfer, how and through whom; in other words (i) what territorial governance elements may be effectively transferred, (ii) what components of exchange may favour the transfer and (iii) what 'receiving' stakeholders' group(s) may constitute the target of the transfer.

Building on this assumption, the contribution reflects upon the potential transferability of the territorial governance 'features', intended as practical manifestation of good territorial governance in real cases. The author catalogues and discusses a number of generalizable positive and negative features of territorial governance (promoters and inhibitors respectively) emerging from the ESPON TANGO project case studies, in the light of both the dimensions of territorial governance they belong to, as well as the main policy components their transfer may potentially be pivoted around.

*Gateway R*

## **PRESENCES, TERRITORIAL CONSUMPTIONS AND TERRITORIAL VALUE**

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This article arises from an observation. The territorial economic approaches remain rooted in productive paradigm and the export-basis theory. In this approach, the territory supplies resources, involved in the production. This article approaches the question of the territorial value under the consumption point of view. The thesis is that "presential economy" – i.e. the idea that territorial value is built at the moment of the consumption - is an explanatory model of today's economic development of territories, in a context usually qualified as "postmodern".

Indeed, the productive model depends fundamentally on the substantial dimension of value. Notions such as the "culture" (the so-called "cultural turn"), the "creativity" (the "creative class", "creative city",...), or some recent forms of the "knowledge" (knowledge dynamics) are still centered on the basic idea that value – here including creativity, knowledge,... - is embodied in goods and/or services and that value is created when the latter are sold on the market, revealing their exchange value.

Orléan (2014) draws a distinction about value construction in today's economy. On the one hand, "substantial" value reflects various attributes that are contained, embodied, in goods and services, attributes that can be listed, identified, and often assessed by their "utility". On the other hand, the "opinion" value of goods and services is based on the cultural context which influences very much the latter. For instance, the value of a wine is much higher if there are stories, knowledge, rituals,... that accompany its production, purchase and, above all, consumption.

Industrial or agro-food areas often encountered a development history based on the production of goods the value of which was mainly substantial (their "utility"). In some cases, and today in most cases, an opinion value developed in addition to the predominant, substantive, properties of the goods. However some territories had a totally different development history, firstly based on the consumer's opinion (for example an alpine site's celebrity). Those places managed, in one way or another, to valorize this opinion value. In other words, these territorial systems were depending first of all on the consumer's knowledge about the properties of this territory, then on the capability of local entrepreneurs to transform the potential opened by this knowledge into monetary exchanges. For some of them, this reality is not recent, but started in the first decades of the industrialization in Europe.

This paper claims that today, this presential model of regional development concerns all types of regions where some learning about the importance of consumption processes have taken place, either as a central issue, like in touristic resorts, or more progressively, as a complement to traditional productions, like in some industrial regions, some urban centers or metropolises. Among touristic regions, the Alps are of particular interest because they were historically concerned only in a marginal way by industrial production, contrarily to metropolises. Touristic resorts were therefore highly concerned by the mobility of people and information. Their development was strongly depending on the presence on-the-spot of foreign and local consumers and of medias (tourism guides, newspapers, today internet) who publicize them.

This paper starts with the presentation of the productive model, where value creation does not depend on the presence of the consumer in the territory for the consumption of a good or service. Here the opinion dimension exists but is less important and not linked to a place.

Second, the presential model, where the fact of being on site is crucial. Touristic services are often banal, like providing a bed, transportation or food. What confers a strong value is the knowledge and values customers associate with the place where he/she comes.

Third, a hybrid model is proposed, the "referential" model. It concerns the symbolic "presence" of territory somewhere else, through exported properties (for example labeling products as AOC) that confers added value to the good or service and reinforce an opinion value linked to a territory.

The cases of Montreux and Finhaut (Switzerland) are examined to show the breaks/filiations in the presential economy of these territories in connection with the changes of the general socioeconomic context. Those cases show that all three models are relevant to explain regional trajectories of development. Over time, a region can see its dominating paradigm change, combine and or come into competition. Our research focuses on paradigmatic complementarities and competitions within the same region and on the consequences on the territorial value.

As a conclusion, we ask the question of the importance of the presential economy for most types of territories, at least in Europe. We suggest that the analysis of historically productive territories could show the growing up of the presential or the referential models in their trajectory during the 20th century. For some of them, like some metropolises, presential economy have become predominant, after having crowded out productive activities, in particular by the increase of land value.

## **BRAZILIAN MIGRATION PATTERNS: RECENT TRENDS AND THE IMPORTANCE OF URBAN-REGIONAL DEVELOPMENT (1980-2010)**

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The reciprocal relationship between development and population dynamics affects migration patterns. The level of regional development is affected by the migration process, and the subsequent migration flows are affected by the growth rates of the localities in a process of circular and cumulative causation. The aim of this paper is to identify the main characteristics of the Brazilian migration patterns between the 1980's and the 2010's. To achieve this goal, we analyze data from demographic census for the period, provided by IBGE. The migration criterion adopted considers migrant the individual who lives in a region for less than 05 years, regardless of his place of birth. Data analysis shows that migration patterns in Brazil are extremely related with the levels of regional development. Moreover, migration flows are associated with the advantages of urban centers, especially if they are located in medium sized cities. New trends begin to emerge and are related to the economic expansion of new destiny regions, with the decline of job opportunities in the most developed region of the country, and with return migration. Despite the changes observed, the expansion rate of the migration transition in Brazil is still low due to the inertial component of its dominant migration pattern.

## **COMPARING GOVERNANCE OF CLIMATE CHANGE POLICIES IN POLYCENTRIC URBAN REGIONS: RANDSTAD AND HONG KONG – PEARL RIVER DELTA**

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The research investigates the patterns of governance of polycentric regions through the prism of climate change policy. This policy poses particularly daunting multi-level governance challenges as it requires strong vertical and horizontal coordination due to the global origins and local impacts of climate change. Cities are essential for tackling climate change as they are both its 'perpetrators', being one of the main sources of greenhouse gases emissions; and its 'victims', as it is in the urban context where the negative impacts of climate change are the most acutely felt and will generate the highest costs. While the literature on urban climate action has been developing since the mid-1990s, it is characterised by a strong bias towards mitigation policies and most studies investigate this topic from the perspective of environmental management and global environmental governance. There is, however, a shortage of studies investigating actual the actual patterns of governance of climate change policy on the ground, and particularly the mechanisms of cross-boundary and cross-sectoral coordination within urban regions. This paper attempts to bridge this research gap by shedding light on those mechanisms with an emphasis on how they are shaped by the wider national administrative and institutional systems and, conversely, whether and how the governance of climate change policies in urban regions restructures the state authority in its sub-national dimension.

It will do so by investigating and comparing mitigation and adaptation policies in the Randstad in the Netherlands and in Hong Kong-Pearl River Delta region in China. Both of those delta regions are characterized by high-density polycentric pattern of urban development and extreme vulnerability to climate change impacts. They also have particularly complex governance arrangements and have been pioneering climate change policies at the regional and local levels. However, they operate in very different institutional settings. The Randstad is located in the Netherlands, a decentralized unitary state, with long-standing traditions of horizontal cooperation and municipal autonomy. By contrast, Hong Kong-Pearl River Delta region is part of the Chinese state where intergovernmental relations are hierarchical, the central government plays a key steering role and the development of regional cooperation remains hampered by fierce competition between cities and cross-boundary issues. This interplay of common challenges and different institutional characteristics makes

the comparison between the governance of climate change policies in those two urban regions particularly salient.

*Gateway T*

## **SUB-NATIONAL ECONOMIC POLICY: FISCAL SELF-DEPENDENCE AND ECONOMIC GROWTH: THE CASE OF SAN JUAN AND MENDOZA (ARGENTINA)**

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**Javier Diaz Bay, Universidad Catolica Argentina, ARGENTINA**

In this paper we will try to analyze what happened with the public finance and the behavior about it of the provinces of Mendoza and San Juan in Argentina, trying to explain if that behavior was relevant for sub-national macroeconomic indicators, giving a role to the sub - national economic policy. A key issue to have into consideration is a virtuous path of self-generated growth and development through a sub-national economic policy. Local governments should to pursue policies that would sustain an appropriate balance within their public finances. In fact, sub-national needs to avoid over debt (even if it is in their own national or federal state) because that require long-term unnecessary sacrifices affecting their state function. One of the current problems of Argentina is the large imbalance that has the federal (the sum of provinces) economic structure, as evidenced by the fact that the poorest province is contained 8 times by the richest one. Thus, the great heterogeneity in the geographical distribution of wealth and economic activity leads to important differences in terms of the tax revenues (about state taxes) across jurisdictions. These asymmetries in the fiscal capacity of sub-national governments within Argentina generate pressure on economic growth. The persistence of a structural imbalance between revenue and expenditure in provincial governments involves, mainly, a non virtuous rely on a system of intergovernmental bursaries from the central government to provinces. Within this framework, it is clear that there is a sort of "wallet power" that determines the fiscal and economic policy of sub-national governments. This power determines how different economic capabilities can disturb productivity growth. This in itself is evidence to the role that SSGG drives in Economic Policy. With a higher level of economic dependence, there is a lower level of economic development? To answer that question it would be necessary to assess the financial aspect of local government. Probably the inability of sub-national governments to self-generate their own resources, limits a development path. Being dependent of national resources seems to be wrong or non virtuous. We could speak about the Role for SSGG with this theoretical approach. We will analyze the fiscal and financial issues of two Argentinean Provinces (Mendoza and San Juan). Those starting point are diametrically opposed. Then, we will try to empirically demonstrate the importance of fiscal and financial aspects in Sub-National governments to achieve a path of self - reliance but to their resources. This is, perhaps, the starting point of a virtuous circle of growth. The main objective of our work seeks to observe and assess the fiscal and financial performance of the public finances of the provinces of San Juan and Mendoza to discuss an specific role for sub-national governments. This will make an exploratory analysis of the key variables that show these aspects and we tried to generate and index, to reduce the data. Finally, we will apply the 'Provincial Index Performance' to compare year to year which was the province with the best performance on the issues and finally we will make a consolidated index to capture the framework. We want to discuss, at the end, which was the most efficient province in managing their public finances.

*Gateway J*

## **THE EMERGENCE OF SPATIAL PLANNING IN NEW ZEALAND: AN EARLY ASSESSMENT**

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The Auckland region is New Zealand's most populous and also the most culturally diverse. It is home to one third of the country's total population and over 200 ethnic groups. Economically it produces a third of New Zealand's GDP. The city thus plays a very significant and at times overwhelming role in New Zealand political economy. In 2010 wholesale governance reform occurred in the Auckland region which included the provision

for spatial planning for the first time in New Zealand. The purpose of this paper is to provide an early assessment of the concept of spatial planning as it has taken shape in the newly created 'super-city'. This is important because if successful in Auckland this approach to urban management is likely to be rolled out in other, smaller, New Zealand centres.

Since Auckland's founding in 1840, the governance arrangements in the region have performed poorly in terms of taking a regional approach to growth management. Prior to 1989, 44 local authorities and special purpose boards existed in Auckland. In 1989 the first significant reform to local government in the region occurred reducing the number of local authorities to just seven and creating for the first time a regional authority with planning, investment, and service delivery functions. However, in the face of 2.3 per cent population growth per annum, a figure considerably higher than many comparable North American cities, and at a time when the region was receiving three quarters of the total national population increase, these new governance arrangements faltered. Each of the four main city councils remained largely autonomous, and collectively the seven local authorities failed to engage in a coherent and unified manner with central government. In this regard, it is important to note that the role of local government is quite limited, compared with other jurisdictions internationally, and is determined by central government legislation. Furthermore, of the total government expenditure in the regions only 10 per cent is derived from local government whilst the remainder comes from central government departments and agencies. This immediately constricts, and some would say, compromises, the role of local government.

Throughout the 1990s and 2000s successive central government administrations incrementally changed the local government structures perceiving them to be the crucial problem besetting the Auckland region. Their efforts failed. In 2007 a Royal Commission of Inquiry was established with a mandate to provide recommendations on how governance in the region could be reconfigured to manage the increased population growth and improve economic productivity. Not all its recommendations were adopted. Nonetheless, the seven previous local authorities were amalgamated into one 'super-city' or 'super council', to be known as the Auckland Council. Spatial planning was heralded as providing an innovative tool for regional strategy underpinned by the need to achieve 'joined-up' governance. Its adoption can be viewed as an attempt to re-create Auckland as a 'globally competitive' metropolitan centre, stemming in part from the perception that the region was underperforming.

The research upon which this paper is based relied on in-depth interviews with 60 key stakeholders in Auckland and other New Zealand centres. The overarching finding was that the spatial planning concept has been variously conceived, resulting in diverse and conflicting interpretations of the requisite frameworks and policies for successful implementation. My research participants highlighted four critical barriers to undertaking spatial planning and to realising the opportunity presented by a single unified governance structure – namely, inadequate legislative support, limited funding, poorly constructed governance structures, and a resistant organisational culture. In particular, the overwhelming hurdle to achieving integrated planning and decision-making in the region, vis-à-vis spatial planning, was identified as central government's engagement with the new governance arrangements. Whilst this is a critical component and one that has plagued the Auckland city-region to date, there are limited signs of improved multi-scalar meta-governance approaches to planning and development in Auckland. As a consequence what has emerged in terms of spatial planning can be best cast as 'old wine in new bottles', and has failed to deliver the more expansive and integrated approach envisioned by both the Royal Commission and central government via a unified local government model.

This research found that the tensions, contradictions, and misunderstandings both in design and execution of spatial planning and the new unified governance arrangements severely constrain the opportunities they present. This analysis provides insights for researchers, practitioners, and policy makers concerned with spatial planning, regional governance, and the reorganisation of government.

## **THE ROLE OF SUB-NATIONAL GOVERNMENTS IN CREATING FRAMEWORKS FOR GROWTH: SELF-RELIANCE AND PROSPERITY**

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**Eric Brian Dahl, Universidad Catolica de Cuyo, ARGENTINA**

The praxis and theory of political economy increasingly emphasize regional spaces, taking a sub-national, rather than a “national” theoretical approach. Thus, the province or regional state is now an important unit of analysis and a dynamic management area. As a result, National Governments have declined as the main focus of development, as sub-national areas and super-national focuses have gained prominence. This type of analysis began in the 70s, examining Provinces of Canada, US States and some regions of Western Europe, and theorizing about their development began in the 1980s. The assumption that the regions of some nations are more compatible with development models of other countries than their own is amenable to the Economic Science. When a sub - national space is significantly less developed compared to the rest of the sub- spaces that constitutes the country, different sub- national policies can explain different development paths. The sub – national policies, then, could be the starting point and thread for internally generated sustainable development in their jurisdictions and an elemental source to explain the process of convergence or divergence about growth between regions of the same nation. Our main objective is to analyze extreme sub - national jurisdictions measures in terms of GDP per capita in the two largest economies in South America (Brazil and Argentina) and include the economy of Spain during the period 1993 -2008. We examine tax and financial performance of their public (sub-national) treasuries and the degree of financial dependence on their respective nation. We will determine which sub-national governments have improved their stability and financial capacity to provide public services. We will then discuss the degree to which such pro-active policies which are well-managed to create self-sufficiency of the sub-region can be a key to generate economic prosperity. If we can prove that the relationship between self-generation and dependence on their own resources, and between self-sufficient sub-national governance and provincial economic growth, then we could infer what kind policies would be necessary to make progress in reducing the large inequalities among sub - national jurisdictions within the country to generate an harmonious national development. Each nation has different degrees of freedom in terms of how sub-regions raise funds and laws that impact the ability of sub-region to incur debt. The sub-regional state with higher levels of debt often pay higher interest rates to take on more debt, which limits their "fiscal space". Further, their economic geographies and external demand limit sub-regional insertion into external markets. Countries limit sub-national macroeconomic policies (fiscal, monetary, exchange rate, industrial and even technological), though explicit and / or implicit rules for their sub - national spaces (example: golden rules, zero deficit). For these regions, interaction with this "centralized" model, in which they can manage a given fiscal space with a specific degree of autonomy involved, depends on their own ability to generate resources. Those sub-regions with a higher levels of internal resources are more able to generate a self-development path, which could include Foreign Direct Investment. A comparative study of changes in each territory in different settings and circumstances could help inform individual policy formulas or desired policies direction. For each sub-region considered, this analysis helps to rethink that regional economy in comparison to other similar and complementary regional economies to encourage regional governments to advance policies and improve a policy framework defined together.

## **ANALYSIS OF THE DYNAMICS OF USE AND LAND COVER IN THE STATE OF TOCANTINS**

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**Érika Kneib, Federal University of Goiás, BRAZIL**

The aim of this article is to analyze the relation between deforestation and agriculture in the state of Tocantins, Brazil. To achieve its purpose, it uses satellite images – Land-Sat in four different years – 1990, 2000, 2005 and 2007. The first part of the article characterizes the deforestation process considering the municipalities and microrregions of the state. The second part of the article analyzes the deforestation process

using a spatial analysis. This allows us to identify a pattern of the deforestation process within the last 17 years. In the third part we use an statistical analysis to identify correlations between the deforestation variables and social-economic variables, such as population growth, GDP growth, employment, planted area, cattle herd, employment in agriculture, where we observe important high positive correlations among the deforestation variable and others. In the last topic we use an econometric model with the purpose of explaining which variables explain most the growth of deforestation, concluding that agricultural and population growth are the main variables to explain the dynamics of deforestation in the state of Tocantins.

*Gateway C*

## **URBAN DEVELOPMENT, CREATIVE ECONOMY AND SOLIDARITY PRODUCTION IN THE METROPOLITAN REGION OF BELO HORIZONTE, BRAZIL**

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**Ana Flávia Machado, CEDEPLAR - Universidade Federal de Minas Gerais, BRAZIL**

At the end of the last century, various types of policies were implemented in order to encourage and consolidate small production. Regardless of the reasons that led the governments of developed and developing countries taking this path, initiatives with emphasis on the concept of territory now consider creativity as anchor, especially cultural activities. The identification of environments based on creativity becomes key part of socioeconomic development, comprising territorial identity through a set of productive inclusion activities, such as solidarity and creative economy organizations that provide distinction and knowledge to the place, and especially self belonging of its residents, whether or not producers of these activities.

This work considers solidarity production units of creative economy. Their economic activities include handicraft with various types of raw materials; theatrical, dance and musical groups; and also the production of electronic games and software with strong interface with the new information technologies. These are creativity and labor intensive activities that differ from traditional capitalist enterprises in the organization of labor and the goals of the production.

The analysis focuses on the metropolitan region of Belo Horizonte, in the Southeastern of Brazil. In the context of the creative economy, this MR, especially its capital, is gaining prominence on the national scene. The services sector has an historical role in its economy. Moreover, the residence of prominent writers and artists in the last century and the existence of cultural public policies in the 90's created an environment that stimulate creative activities.

Although some 'creative areas' emerged spontaneously in this region, most have been induced by policies of occupation of abandoned and/or obsolete buildings, stimulating cultural diversity or approaching the artists with entrepreneurs. This article describes, based on secondary data sources and personal interviews, the experience of projects of this nature in the last ten years. We try to identify areas of concentration of this production, as well as their predominant activities, and also to emphasize the opportunities they offer, as well as the barriers to its sustainability.

## **CHALLENGES IN BRAZIL AND PORTUGAL, SYSTEMS CONTROL, SUPERVISION AND ACCREDITATION IN HIGHER EDUCATION REGARDING THE PERCEPTION OF QUALITY IN ACADEMIC EXPERIENCE OF DIGITAL GENERATION STUDENTS**

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Over the past 10 years has seen an increasing number of students in higher university system, both in the traditional courses and in technological courses. In Brazil, as in Portugal, although in this country the admission has not been increased the same period, the characteristic of this population is quite heterogenous, therefore, not only for social mobility as occurred in Brazil, but mainly by way of approach than is perceived as quality. This new group has quite different behaviors in relation to what was established as a student "model" to the university system.

For these young people, who were born in the last 20 years of the twentieth century, called "digital generation", technology and quick access, even in part, to information serve as the absolute reference for their behavior, often impatient. Institutions of higher education are constantly urged to meet this new demand, not only with technological innovation processes, but mainly new teaching methods and contents that attract the interest of the new group.

In private institutions, with the fear of losing students, administrators and teachers has unfolded themselves in finding solutions, not always the most appropriate for the teaching/ learning process, it can be verified by the large number of failed exams of professional advice especially in case of Law in Brazil, where the failure reaches alarming ratings of 80%. In public institutions which are more averse to change, the process of changing in curricula and pedagogical proposals has been quite slow.

What people expect is that the more IES has being aware of the need for change, better it will be prepared to implement programs and services that meet the expectations and perceptions of students. Governments, on the other hand, with their regulatory models and their proposals for review and supervision, insist on indicators that are not always perceived by students as references to their perceptions of educational quality. Given this situation, the aim of this article is to make a comparative study which evaluates the importance degree of what students, considered "digital generation", attribute seconded by official instruments as indicators of quality in higher education factors.

For that, we use as a working tool the "scale of satisfaction with the academic experience (ESEA)", considering that this document had its validation both in Brazil and in Portugal (Schleich, 2006). The data collection will occur with a sample of students of an institution in Portugal and one from Brazil. The processing of these data will be made using the structural equation and the technique of multivariate analysis will be descriptive to allow the reading of how quality is perceived by students.

The present study is limited to a small sample of students, but aims to give more alert to the situation that has already been observed and studied by many authors. As an innovative proposal which is intended to treat the subject quality from the point of view of what is called "digital generation", seeking thus consistency between what is intended and what the system wants to offer.



**Patricia dos Santos, Universidade Estadual do Centro-Oeste UNICENTRO, BRAZIL**

The current moment in which the society is marked by the speed and intensity of the phenomena a socio spatial and expressed by fluidity of means scientific-technical-informational, a result of the process of globalisation and fragmentation propitiated debates on power relations in the territory which enables responses increasingly fast for the geographic analysis. The geographic science as well as other sciences presupposes the use of key concepts to explain his studies. For reveling relations established in geographic space, the concept of territory appears as guiding in analyzes, especially regarding the emphasis on the relations of power. Once that the territory goes beyond their jurisdiction, while physical limit, it is also a source of resources and thus can only be understood when approached in the relations with the society and those that manifest themselves in various ways as a society that uses or appropriates and transforms this means in resources. As part of the analysis of all actors, produce territory, consequently power relations. Thus, the fact that the main property of power relations is to live in society, where this experience is provided by social relations between the subjects and institutions. Therefore, if it is relevant in this work while aiming to study, discuss the relations of power showing the concept of territory, being the study of Networks the environment for analysis of these relations, and in particular the Political Network. The relations independent of whether present at different scales, since the symbolized by the State, as well as those of a father to his son, are relations of power and which are not zero-sum. One side tends to exert power over the other, thus delimiting their interests. The networks demonstrate an overlap of these interests and consequently these relations of power, since there are numerous actors. The space is a place or a field of possibilities, so the actor can build several types of structures regarding and articulate all the points, or only some, in networks. The territory in a network can be dynamic, mutable endowed with social relationships, especially those of power and still needs to be evidenced in time. These are elements that allow us to say that the network is dynamic. The logic of networks, is defined by the actors, who sculpt, regulate, draw, being essential to understand their actions, strategies and how these networks are administered. The logic of the territories, the arena of opposition between the market and civil society, the territory for this author, it is the support of networks. You can point out the stocks of various types of networks: economic networks, social networks and political networks. What differentiates are the factors that influence the actions of the actors and factors that characterize it. In This way, the approach of the concept of Territory in order to understand the relations of power and the Networks, while element that affects these relationships, results in the quest to understand that the territory only becomes territory from the relations of power. And that the dynamics of networks provides the analysis of the actors in these power relations, which are in addition to the state figure and permeates companies, institutions, social groups etc.

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Ward Ooms, Open University in the Netherlands (OUNL), THE NETHERLANDS**

The benefits of both geographical and relational proximity (as a 'compendium' of a plethora of variables that allow for realization of specialization/localization externalities and collective learning opportunities and knowledge spillovers, incl. shared (in)formal institutions, knowledge bases, beliefs/mental models, goals etcetera) to cluster development have long been apparent (Gilly and Wallet 2001; Boschma 2005). Unfortunately, the literature herein has seemingly fallen victim to, what Lagendijk and Pijpers (2012) have coined, the endogeneity trap; a conceptualization of the role of 'proximities', 'embedding' and 'relational assets' as fixed inputs into or automatic levers of regional wealth. Such a deterministic outlook, however, overlooks the all-decisive role of governance. Just as the magic of haute cuisine lies not in the employed equipment an sich but in the chef and his/her culinary skills, choices and acts, it is governance, and specifically individual agency, that allows for capitalization of endogenous potentialities (the latter being anything but a

fait accompli given the seemingly omnipresent troubles of inertia, distrust, faltering commitment, parochialism and institutional disalignment in cluster reinforcement practice). The actual added value of operating as a cluster, thus, is the outcome of an ongoing cluster governance process – as a ‘moving target’ – enacted by individual agents. Research on this topic, however, remains in its infancy. Available publications do emphasize the importance of individual agency (Fromhold-Eisebith and Eisebith 2008; Sotarauta 2010; Sydow, Lerch et al. 2010; Rutten and Boekema 2012; Ebbekink and Lagendijk 2013; Caniëls, Kronenberg et al. forthcoming).

We wish to add to the debate by pointing at the role of personal proximity and ensuing ‘(dis)clicks’ (Caniëls, Kronenberg et al. forthcoming) in cluster reinforcement. Personal proximity refers to the degree of similarity between individuals in intrinsic characteristics or personal features (e.g. personality traits, professional practices, behavioral patterns, preferences, age, sex, tenure). Personal proximity is a determining factor in establishing ‘(dis)clicks’ between individuals – whether or not an emotional bond is forged (i.e. feelings of affection, acceptance, appreciation, empathy and mutual involvement). Both are said to influence initiation, maintenance and success (e.g. efficiency, robustness) of collaboration(s)/collaborative behavior, e.g. via increasing trust. Personal proximity could thereby very well tip the scale towards a durable relationship in spite of geographical and/or relational distance. However, it is not all roses here. Too much personal proximity can be detrimental as it can lead to clique-formation, partisanism, groupthink and intellectual blind spots. Nevertheless, ‘cluster missionaries’ could greatly benefit from a better understanding of how challenges in cluster reinforcement and specifically cluster governance could be traced back to suboptimal personal proximity and lack of personal ‘clicks’.

Using extensive qualitative case study evidence, this study explores the importance of personal proximity and ‘(dis)clicks’ to cluster governance in two Dutch cluster initiatives.

#### *Gateway K*

### **AN EXPLORATORY SPATIAL DATA ANALYSIS FOR THE MUNICIPAL DEVELOPMENT INDEX FAMILY**

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Poverty becomes the object of scientific research since the Industrial Revolution and its design has expanded progressively, so that the concept began to incorporate a sense of complexity and multidimensionality. Thus, the path that runs along the theme goes from one-dimensional approach, in which the monetary income is the variable that determines the level of personal or local development until the multidimensional approach that, besides income, incorporates information of economic, social and / or policies areas.

In this respect, Sen (2000), one of the major exponents of the multidimensional concept, states that poverty and inequality have to be seen based on the largest possible number of variables, depicting more fully the socio-economic reality of society. The varied faces of poverty and inequality, thus requires the use of a multidimensional approach, which embraces the breadth and relativity of the concept.

Within this multidimensional approach, this paper aims to present an Index of Family Development, originally proposed by Barros et al (2003) added and adapted to Brazilian municipalities. Such index, which measures poverty, was constructed based on seven dimensions, namely Absence of Vulnerability, Health and Longevity, Access to Knowledge, Access to Work, Resource Availability, Child development and housing conditions.

The different dimensions measure if a family has the opportunity to acquire skills, opportunities to use these skills productively and conditions for these opportunities. Thus, each dimension represents access to necessary for families to meet their needs and satisfying those needs effectively. From the aggregation of such family characteristics, the intent is to provide an analysis of types of municipalities in terms of municipal socioeconomic attributes.

The Family Development Index adjusted to municipalities was estimated based on the Population Census, School Census and Civil Registration, considering the years of 2000 and 2010. Given the change in the concept of family between the 2000 and 2010 population censuses, were considered only those arrangements where kinship configuring was performed.

For the treatment of spatial effects was used in this work Exploratory Spatial Data Analysis, ESDA, which made it possible to describe the global and the local Development of Families adapted to municipalities index spatial distributions, in order to distinguish patterns of spatial association and identify atypical situations (outliers).

Gateway J

## **MUNICIPALITIES' PARTICIPATION FUND AND ITS CONTRIBUTION TO INEQUALITY REDUCTION IN MATO GROSSO, BRAZIL**

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**William Ricardo Marquezin, State University of Mato Grosso - UNEMAT, BRAZIL**

In Mato Grosso, due to its socioeconomic heterogeneity, there are municipal economic inequalities that have been perpetuated over the years. The general objective is to investigate how the intergovernmental transfer policies, with emphasis in the Municipalities' Participation Fund (MPF) and the quota share of the Goods and Services Tax (GST) of each city, contribute to the grow of per capita GDP between the years 2001 and 2010. In the methodology it was used the Exploratory Spatial Data Analysis (ESDA) and the growth econometric model based in Barro and Sala-i-Martin. The municipalities participation fund was not significant, indicating that they did not impact favorably to the real per capita growth of the municipalities in Mato Grosso. The coefficient of GST into the model presented positive values, indicating that the per capita GDP growth of the municipalities were explained by the distribution of the per capita GST. Being an effective variable into the analysis of the model, it further sharpened regional income disparity, showing up ineffective, also suggesting the necessity to rethink the redistributive criteria in favor of less favored regions. For this, in order to reassess transfers policies, it is presented a methodological proposal for the intergovernmental transfers of MPI (Municipalities Participation Index) and MPF in Mato Grosso State, where it was sought to decrease the impacts of existing distortions in the actual distribution. The proposal has showed to be more egalitarian in per capita terms, evaluated by the Gini index, and its distribution became more uniform in the State of Mato Grosso.

Gateway D

## **THE CHALLENGED LOCALITY AND THE ENTREPRENEURIAL LOCAL STATE**

**Jens Kaae Fisker, Aalborg University, DENMARK**

Spatial reorganisations on everything from local to global scales currently affect actors in disparate localities around the world. This paper, which is based on the findings from a recently submitted PhD thesis, is concerned with challenged localities in a Scandinavian perspective. It conceives of these as localities, in which actors currently find themselves confronted by a diversity of challenges, which relate in some way or other to the spatial positioning of the locality. It attends specifically to the ways in which local state actors respond to these challenges.

Empirically it investigates practice transformations among local state actors in a challenged locality in the North Denmark Region: Frederikshavn Municipality. In 1998-99 the local economy was crippled by a double-blow of largely external forces. The local ship yard finally succumbed to the pressures that global changes in the ship building industry had levelled on European ship yards throughout the 1980s and 1990s. At the same time the lucrative toll free trade, which local retailers, hotels, and restaurants in this harbour town had capitalised on for decades, came to an abrupt end on account of changed EU legislation. The local crisis that ensued heralded the beginning of a series of transformations that changed the way local state actors in Frederikshavn conceive of their own roles.

The main findings of the thesis are presented through a narrative that conveys those changes as they have unfolded over the last 15 years. Based on this the transformation process is divided into five distinct phases of transformation: (1) an initial entrepreneurial turn, (2) a consolidation phase, (3) a period dominated by structural reform of the Danish state system, (4) a phase of entrepreneurial reassertion in a new form, and (5) a reflective and more cautious phase in which actors try to make sense of past practice.

With a point of departure in these findings the thesis goes on to challenge conventional thinking about urban entrepreneurialism. It also makes an attempt to articulate conceptions derived from cross-disciplinary sources and empirical engagements to assist a potential rethink of entrepreneurialism capable making the term sensitive to practice that divert from narrow neoliberal paths. The thesis contributes to research agendas on challenged localities, small cities, urban governance (including entrepreneurialism), and entrepreneurship.

In the conference paper these findings are presented with a view to highlighting the ways in which they are able to contribute to evolving understandings of the challenges that rural and peripheral regions are confronted with. In this sense, the Frederikshavn case reflects distinctive avenues of local response to crisis and structural change. Most significantly the findings highlight the nuances of entrepreneurial turns as they unfold locally, and offer the outlines of a conceptual framework for understanding local state entrepreneurial practice, which makes distinction between animation, facilitation and direct acts of entrepreneurship.

#### *Gateway K*

### **URBAN ATTRIBUTES AND REGIONAL DIFFERENCES IN PRODUCTIVITY: EVIDENCE FROM THE EXTERNAL ECONOMIES OF BRAZILIAN MICRO-REGIONS FROM 2000 TO 2010**

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**Rodrigo Simões, CEDEPLAR - Universidade Federal de Minas Gerais, BRAZIL**

This study aims to identify the extent to which the local productive structure of a city leverages external economies of scale. Formal employment data is grouped into segments according to its level of technological intensity. The model is estimated using panel data. The results suggest evidences of local externalities like location/MAR and urbanization/Jacobs. The results also indicate that the Medium-High and High-Technology industry segments have advantages only in diversified urban centers, while the Low and Medium-LowTechnology industries have more advantages in intermediate-sized urban centers, specialized in few industrial activities.

#### *Gateway B*

### **THE ROLE OF THE INDIVIDUAL CHARACTERISTICS OF UNIVERSITY AND FIRMS FOR THE SPATIAL DISTRIBUTION OF UNIVERSITY-INDUSTRY LINKAGES IN BRAZIL**

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University research plays an important role for the firms' innovative efforts. It's widely accepted in literature that academic research is a source of new scientific and technological knowledge and the university-industry linkages are a vital channel to this relation. In this context, some studies evaluate the main factors that affect these interactions. Among them, geographical distance appears as an important element, since spatial proximity can facilitate an interactive learning process between universities and firms by allowing for frequent interaction and face-to-face contact, which speeds the transmission of local knowledge spillovers. Thus, there

is a growing interest in the literature on university-industry linkages and how these relations are shaped on space.

However, firms also choose to interact with distant universities. In this way, university-industry linkages over high geographical distance normally occur when there are specific needs of the firms and both university and firms have complex and well-developed capabilities that can compensate high distance between them. Some studies point two main factors that shape the distance pattern of these relationships: the quality of academic research and the absorptive capacity of firms.

Numerous empirical studies evaluate the geographical distance and the quality of academic research of university-industry linkages. Mansfield and Lee (1996) indicated that a firms' decision to interact with university is directly related to the quality of the academic research. Firms commonly look for partnerships among the world's leading universities in the fields of science and technology. In addition, Laursen et al. (2010) showed that co-location of university and industry may play different roles regarding on the university's academic performance. D'Este and Iammarino (2010) showed that both geographical proximity and the quality of academic research positively impact the degree of university-industry collaboration. This indicates that the geographical proximity and the quality of academic research can facilitate university-industry linkages, since it can foster the exchange of knowledge between them. On the other hand, firms with higher absorptive capacity tend to better benefit from the interaction of university, since these firms perform state-of-art technological research and they are able to learn with the contact with academic researchers.

This study aims to contribute to the debate on the role of geographic distance of university-industry linkages, providing an analysis of the main factors that influence the decision of firms to interact with university. For this purpose, a model was proposed to evaluate the effect of the quality of the research performed by the university and the absorptive capacity of the firm on the geographical distance of university-industry linkages. The empirical model was estimated using data from the Directory of Research Groups base CNPq Lattes on academic research groups in Engineering and Agrarian Science, which are the most interactive scientific fields in Brazil.

Main results show that the size of the research group; the quality of academic research; the number of interaction of the research group; the absorptive capacity of the firms; and the number interaction of the firm are important factors that affect the geographical distance of university-industry linkages.

Taking, first, the main characteristics of research groups. The group size positively affects the distance of interaction between universities and firms. Larger groups tend to have more skills to handle interactions with the long-distance firms. It is also possible to indicate the possibility of a wider range knowledge that is useful to firms. Concerning the quality of academic research, it is possible to observe that the search for more skilled research groups explains the performance of long distance interaction, since they can better collaborate to the solution of innovative problems of the firms. Finally, the number of interactions with firms also positively influence the geographical distance of university-industry linkages, which means that research groups with higher number of interactions tend to have more distant relationships with firms.

Concerning to the characteristics of firms, it is possible to observe that firms with higher absorptive capacity interact with more distant universities, which shows that firms with greater absorptive capacity of knowledge have a wider range of potential partners. In regards to the number of interactions of the firms, it is noted that firms that have more linkages to universities tend to interact at longer distance, which demonstrated that more interactive research groups do interact over greater distances.

## **SOCIAL, ECONOMIC AND ENVIRONMENTAL PROBLEMS IN THE BRAZILIAN NORTHEASTERN REGION, COULD IT BE DIFFERENT?**

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The religious peasant community of the Caldeirão de Santa Cruz, led by the Blessed José Lourenço, existed between 1926 and 1937 in Ceará (a Brazilian Northeastern State). Newspapers and Brazilian History books do not refer to what occurred with this community that provided to their members a better life than most Brazilian Northeasterners had at that time.

The concept of sustainability is still under discussion in academic circles, but there are models available. Thus, the research questions that guide this work are: The way of living of the Caldeirão de Santa Cruz community had characteristics of sustainable development and sustainability as freedom? Why the way of living of that community was not applied to other communities or even to the whole region? If that was done, as a beginning of a process of chaos, life in the region could be different nowadays.

The use of the term "chaos", is traditionally associated with disorder, it is actually tricky. Chaos in Science, is not disorder, it is an order hidden in a masked randomness order. Prigogine, studying nonlinear chemical systems, found that small random perturbations can be quickly amplified, leading the system to a greater instability, up to a limit called "splitting point" from which the structure of the system is broken. After this point the system behavior becomes erratic for some time, but tends to stabilize at a new equilibrium - only qualitatively distinct from the original. The system now has a new way of organization, structurally more complex - it evolved. So, a process of chaos is a changing in a system that leads to new conditions that have the initial conditions as a base.

Using the dimensions of the Sustainable Development model of Sachs (1993) and Sen (2000) Development as Freedom as categories of analysis and evidences on secondary data; it was attempted to relate the modus vivendi of the community of the Caldeirão de Santa Cruz and the theoretical models.

As to Sachs (1993) model, it was found evidences of social sustainability; economic sustainability; ecological sustainability; space sustainability and cultural sustainability.

As to Sen (2000) model, it was found evidences of political freedoms; economic opportunities; social facilities; transparency guarantees and protective security.

These findings show that the community had incorporated all aspects of Sen's and Sachs' model to their practices. That was probably the first (or the only) attempt to overcome the drought in the Northeast of Brazil that led to sustainability.

There were 1,700 people living in the Caldeirão de Santa Cruz community. This bothered the not only the religious and political elites but also the landowners. The Catholic Church wanted back its lands that the community was occupying, the politicians were worried about the possibilities of losing control of the community and the landowners did not want to lose the people that worked in their farms anymore.

As the community was inconvenient to the leaders of the dominant elites, Fortaleza (capital of Ceará State), hosted a meeting of representatives from six institutions: Diocese of Crato, Salesian Priest Order, Catholic Electoral League, Political Police (Deops), Military Police and the Government of Ceará State. During this meeting the destiny of the community was decided. The attack was held on May 11th, 1937, a sound in the sky of the Araripe plateau frightened the peasants. Scared, they tried to hide among the trees while flying machines were gliding through the air, men, women and children fleeing from something that they had never seen before. The desperation was greater when the planes began strafing. Many of them must have whispered a last prayer; others may not had time to do so. On the ground, soldiers completed the slaughter.

Based on the data collected, the community of the Caldeirão de Santa Cruz incorporated the principles of sustainability to their way of living, showing that it was possible to have sustainability, development and freedom guiding the destinations of a community and maybe, along the time, extend it to the whole region. But what we find there, nowadays, is drought and people starving to death as a result of a “bad” process of chaos.

Findings show that sustainability, development, freedom and a better life, first depend on the leaders; thus societies must create systems to make them concern about it. If it is not done, culture, economy, liberty, environment, social rights and even life may be in danger.

#### *Gateway A*

### **LOCAL AGENT OF INNOVATION: RECORDING EXPERIENCES AND KNOWLEDGE ABLE TO ADAPT TO NEW ENVIRONMENTS IN THE GLOBAL ECONOMY**

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The search for competitiveness has made that firms and, hence, economies in which they operate, to have a culture of innovation as a goal. The current economic environment, marked by the crisis in most countries, requires even more innovation as a guideline and government strategy, especially for micro and small firms (MSEs), who face greater difficulties. This article aims to record the main experiences and knowledge from the Program Local Innovation Agent, created by a Brazilian entity of promotion, the SEBRAE, with a view to fostering a culture of innovation in small Brazilian firms in different sectors. Focusing on retail commerce, the work aims to show how it is possible to MSEs adapt to new environments in the global economy.

The methodology used has an observational, descriptive and explanatory character; observed one of the projects implemented in Ceará, Brazil, on retail commerce. It describes the main features of the program, since training of agents, the practice of inducing innovation culture in firms, to the form of preparation of Action Plans. It analyzes the implementation of the Plan of Action, evaluating the new stage in which the firms are, and the competitive and innovative results that they present. The methodology also relies on documental analyses and literature review. It analyzes all existing documentation of the program and some results checked in the firms in study.

The project implemented for retail commerce included 550 firms, involving 11 young professionals who acted as agents and 3 senior consultants. Among the sectors covered, include: i) building material stores, where main recommendation was to aspects related to logistics, ii) pharmacies, with emphasis on digital marketing iii) car parts stores and iv) florists, whose main recommendation was the creation of a ‘network of floristry’ Solutions such as: continuing education through distance education; specialized consultants in all segments that comprise a modern process of business management and, especially, the stimulus to creativity, were some initiatives implemented by entrepreneurs participating in the project.

The article reviews several concepts of innovation, be it product, process, organizational or marketing. Exemplifies the innovation that occurred in several ways, including: the dynamics of Local Productive Arrangement; exercise of Cooperation, Associations and organization of Business Networking; Relationship Marketing or Digital Marketing. It emphasizes improvements in processes -by developing Lay-Out or the study of logistics- and improvements in products -through Packaging Design. It shows the practice of Innovation Management, with emphasis on knowledge management and personnel management, stimulating creativity. Confirm the efficiency of the program and, particularly, of the Project for the retail commerce, through results inferred by diagnostics innovation applied before and after the Project in the participating firms. Under the political aspect, the main contribution of this work is to show a program that deserves, by governments, greater attention and support, since transformed into Public Policy, the Project is able to promote the sustainability of economies. Finally, the most scientific value lies in the fact that it contributes to a diagnosis of business innovation, from studies in the Kellogg School of Management (USA). Still, as more valuable, from a

practical point of view, the work shows that transdisciplinarity, characteristic of the training provided to Local Innovation Agents, prepare talented entrepreneurs for the job market.

*Gateway P*

## **CITY MANAGEMENT STAGES IN BRAZIL AND FURTHER CHALLENGES**

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Accompanying the social, economical and political evolution of the country itself, and influenced by globalization, the Brazilian city management spectrum changed considerably in the last 40 years. City management, as practiced in Brazil today, can be classified in three stages: City Management 1.0, 2.0, and 3.0, as the 1.0 stage is closer to the traditional and more limited concept of a city administration, when the mayor is mostly the “city steward”, with a low level of influence and drive over the local development process. The next 2.0 stage absorbs the massive public health and education services’ responsibilities brought to city level by the 1988 Constitution, as well as a much stricter legislation and procedures concerning financial controls. Furthermore, the 3.0 stage is when we find a strategic fit between the city necessities and priorities and a structured attention to these priorities through strategic planning and management, and a sound priority and understanding of local economic development issues. The main objective of the paper is to further explain and discuss these management stages, their implications on city development, and their incidence in the Brazilian context of over 5,570 local administrations.

*Gateway M*

## **TOWARDS A CO-ORDINATED PLANNING OF INFRASTRUCTURE AND URBANIZATION: PROBLEMS, SOLUTIONS AND CONDITIONS FOR SUCCESS IN THE CURRENT DUTCH POLICY AND PLANNING PRACTICE**

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In today’s complex urbanized regions urban developments and infrastructure influence each other in numerous ways. The Netherlands has a long-standing planning tradition in both fields. However, in the current Dutch policy practice there is a mismatch between the planning of urbanization and infrastructure. This paper signals three types of problems: (A) a gap between the theoretical backgrounds, funding and institutional settings in the fields of infrastructure and spatial planning; (B) a gap between the centralized (national) planning of large-scale infrastructure and decentralized (regional) planning of urban development; and (C) a gap between relatively abstract national interests and concrete decisions about specific projects. Insight into a variety of (related) issues is needed to bridge these gaps.

This paper addresses a number of these issues by researching recent developments and the most relevant problems, solutions and conditions for success in the current Dutch spatial and infrastructural policy and planning practice.

Firstly, based on a quantitative analysis and GIS mapping, this paper provides insight into recent developments in the combined fields of spatial and infrastructural planning in the Netherlands. Which types of residential locations, for instance, are well served by public transport? And, have central city locations been able to attract businesses, or has the number of workplaces increased in places near motorway exits in the urban fringe?



Secondly, taking into account the recent spatial and infrastructural developments, and combining a literature study of theoretical arguments and an institutional analysis of multi-level governance issues, this paper explores nine current strategies to improve the match between urban and infrastructural planning. These are (1) urban development around infrastructural nodes; (2) multimodal accessibility; (3) increasing speed limits/facilitating traffic flows; (4) urban densification; (5) strategic choice of locations; (6) diversification of urban environments; (7) improving transfer points/connectivity; (8) corridor development; and (9) small-scale/incremental spatial development.

Two of these strategies are singled out for a more in-depth evaluation: urban development around infrastructural nodes and corridor development (1 and 8). Together, these two strategies can be considered as the Dutch approach to the internationally much-debated Transit-Oriented Development (TOD). Both strategies will be evaluated in terms of the associated policy objectives and relevant dilemmas, trade-offs, and pitfalls.

Finally, based on the observed developments and the assessment of the relative merits and risks of different strategies, this paper aims to help policy makers and planning professionals in the Netherlands and abroad identify the most pressing issues, and draw their attention to a limited number of promising options available to them. In the current Dutch practice three issues stand out.

First of all, proximity deserves more attention, especially in the most urbanized regions. After a period of infrastructural investments (primarily by the national government) in increasing the average travel speed, accessibility now seems to benefit more from (regional and local) spatial policies for building within the existing cities, where a variety of urban functions is relatively close at hand. Although most urban regions have policies for this type of inner-city development, the implementation of concrete building plans face practical and financial problems.

Secondly, Dutch TOD policies (most of them on the regional level) can learn from successful TOD policies abroad. The approach in Greater Copenhagen (Denmark), for instance, can be considered a good example of continuity in urban and infrastructural planning (by way of the fingerplan and the proximity-to-station principle), while Tokyo (Japan) offers lessons of how to involve private investors in railway-oriented spatial planning (by way of diverging floor area ratios).

Thirdly, in the light of the Dutch national policy of taking a user-centred approach to mobility issues, station areas need additional attention, both as nodes of networks and as places in the city. Only coherence between spatial planning and infrastructure provision can help improve stations' functions as transfer points (smooth connections) and urban destinations (attractive residential, shopping and business areas).

*Gateway P*

## **GOVERNANCE OF CITIES FOR SUSTAINABLE URBAN DEVELOPMENT**

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Since the early 1990s, cities have increasingly risen to the challenge of climate change and the pursuit of sustainable urban development (SUD) through the mobilisation of governance networks. Global to local network activity, to which cities and city-regions and their partners have been important contributors, grew significantly over this period. This paper (available at: <http://ontheplatform.org.uk/article/comparative-urban-futures-spatial-networks-sustainable-urban-development>) explores the story of how the role of governance networks expanded in the context of English cities post the 1993 Rio Summit through a journey of distinctive waves and patterns that continues to be shaped today. It draws on a qualitative study of the experiences of five English cities: Birmingham; Bristol; Leeds; Leicester and Newcastle.

Three broad periods of evolution are identified in the English (UK) context. First, 1990 to 2000 might be characterised as a period of experimentation with different models in different cities. Second, 2000 to 2010 can be identified as a time when multi-level governance networks were mainstreamed top-down by the then Labour government. Third, post-2010, a more complex picture is emerging under the present Coalition government's form of localism. Without a clear national framework for sustainable development, local models

for the governance of SUD are diverging and the motivations behind them becoming more complex. With exceptions, the city has become the main context for pursuing SUD, whilst the sub-region (or city-region), through private sector led Local Enterprise Partnerships, is the primary context for enhancing the competitiveness of the local (and green) economy. The abolition of performance regimes, central funding reductions and new incentives has encouraged local innovation. However, increasing austerity is putting the achievement of progress at risk.

The contribution that local 'places' can make to sustainable development may be only partially understood by the national Government in the UK context. Critically, an appropriate understanding of how momentum is shaped over time through investment in the 'place' qualities of embedded knowledge, strong institutions, effective leadership and trusting network relationships, is insufficiently appreciated in national policy making at the present.

#### *Gateway B*

### **INNOVATIONS' MATERIAL, ORGANIZATIONAL AND DISCURSIVE SIDE: THE DEVELOPMENT OF A COMPUTER GAME DEVELOPERS NETWORK IN A NORWEGIAN URBAN REGION**

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Innovation can be considered a complex phenomenon with material, organizational and discursive aspects. It is a material, observable phenomenon, which leads to technology development and the patenting of new products and processes. It is organizational, in that innovation both forms and are formed by interactive practices in innovation systems. Finally, it is a discursive phenomenon, subject to conceptualization and theorization in the social sciences and used in political analysis and strategies (Fløysand, Hidle and Jakobsen 2013).

While the scholarly work on innovation acknowledges the material, organizational and discursive elements of innovation, one can argue that the existing literature place little weight on the interplay between these elements. In early studies of innovation, the phenomenon was treated as an objective, material phenomenon, whereas the world of ideas and the whole sociocultural context of innovation practice were largely left un-problematized. Over time, interest in the dynamics of innovation and the organizational aspects has grown. This is especially present in the system of innovation literature (Freeman 1987, Lundvall 1992), where the systemic character of innovation is highlighted. Innovation is seen as an interactive, non-linear process with different actors and where the knowledge and learning processes within this system that is in focus. This approach highlights the organizational and ideational aspects of innovation, but the material elements (technology, physical aspects) are moved to the background.

This paper is an attempt to develop an analytical framework dealing with innovation as a trinity of material, organizational and ideational/discursive elements. Inspired by Schwartz and Thompson's (1990) work in technology studies, which define technology development as "a dynamic and evolutionary process that is only possible if patterns of things (technological credos) are accompanied by patterns of people (ways of organizing and disorganizing) and patterns of ideas (cultural bias)" (Schwartz and Thompson 1990: 149), effort is made to develop analytical categories suitable to dealing with as a trinity of materiality, ideas and social practice. The social actors are here referred to as the producers of technologies, the users of the innovation, and other involved persons or organizations. The material is here seen as anything from goods and services to technology and other physical entities, whereas the ideational include knowledge, cultural aspects, discourse, narratives, values and norms.

The interplay and interdependence between innovation's material, ideational and practical sides is seen to affect innovation practice. Hence, the actor-materiality relation is the way in which actors organize and use their competence to develop innovation; the materiality-idea/discourse relation is the way innovation is produced; and the actor-idea/discourse relation is the way actors narrate and the rationale behind the innovation. How these relations are practiced is thus seen to influence innovation outcome from case to case. Recognizing the evolutionary claim that historical and cultural processes produce patterns of economic activity

and thus innovation practice (Boschma and Martin 2007), different relational set-ups could produce path-dependent effects that could both hamper or trigger innovative practice. Innovation practice, with its material, discursive and organizational elements, is also understood to be embedded in a place's cultural economy, and thus subject to contextual rules of conduct (Amin and Thrift 2007).

The analytical framework and categories will be elaborated through a case study of a computer game developers milieu in Bergen, the second largest town on the west coast of Norway. The computer game developers milieu in Norway consists of different social actors organizing and using their competence to develop computer games, using different technological tools based on a set of ideas, knowledge, values and narratives developed within the milieu. My research question will be: How is the interplay between innovation's material, organizational and ideational side unfolding in this milieu, and what are the critical factors for the promotion of innovation? Data on these cases have been collected through semi-structured interviews with respondents from involved firms, and through analyzing existing documentation.

#### *Gateway K*

### **CHINESE INNOVATION AND FIRM PERFORMANCE: A STRUCTURAL-INSTITUTIONAL APPROACH WITH TECHNOLOGICAL LEARNING SPILLOVERS**

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This paper adopts a structural framework to study the process of Chinese indigenous innovation and its impact on firm performance. Informing our analysis is an unusually rich source of panel data comprised of almost 70,000 private Chinese firms operating in China from 2004-2007. We first attempt to disentangle the sources of technological learning and the potential for learning spillovers by identifying multiple types of learning effects that take place: (1) internal to the firm (learning by doing); (2) between the firm and environment (learning by export; and absorptive capacity of the firm to capture learning spillovers); and (3) external to the firm (learning spillovers mediated by institutional quality). Next, we employ 3SLS with fixed effects to simultaneously estimate the learning interaction effects, along with pertinent firm and environmental characteristics at each phase of the structural model: (i) a firm's decision to innovate; (ii) innovation effort; (iii) innovation throughput; and (iv) firm performance. Based on the results, we find that state and local policy instruments and the role of institutions potentially play important roles in fostering (obstructing) innovation in China, as they can help facilitate (hinder) firms' ability to capture and integrate learning spillovers with in-house innovation efforts. In support of state-intervention, protective policy measurements at both the state and local levels are found to spur the short-run innovation effort; although the same protectionist policy measures are found to reduce innovation output and hamper firm performance outcomes in the long-run.

#### *Gateway T*

### **CO-AGGLOMERATION AND BACKWARD-FORWARD LINKAGE: A SPATIAL ANALYSIS TO BRAZIL OF PROSPECTIVE INVESTMENT IN THE PERIOD 2014-2018**

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In a recent report, BNDES, a major bank financing investment in Brazil, announced that investment in some selected sector for the period 2014-2018 could reach the impressive US\$ 275,00. Oil and Gas, vehicle and automobile, pulp and paper, electronics, chemistry, Steel mill are among the sector which would expand

activities in the next four years. In a very important paper, Ellison, Glaeser and Kerr (2010) therefore EGK, showed that input-output linkages are the most important variable to explain industries co-agglomeration. Those investments perspectives open a new possibility for regional policies, following the results of EGK, one could estimate the backward and forward linkages and possibility to co-agglomerate industries, given the potential investment in the sectors described above. The objective of this paper is to identify the backward and forward linkages of the investment matrix for the period 2014 and estimate the spatial distribution of those sectors in backward and forward linkages with the original initial investment. In other words, we apply the co-agglomerations indexes to assess which sector has the highest probability, given an investment in a sector, for instance Oil and Gas and backward/forward linkage, the co-agglomerate. The identification of those sectors can shed some lights on sectors policy makers could successfully support and can improve the performance of the regional policies.

More specifically, we apply the BNDES investment matrix perspectives in the 2005 input-output matrix of the Brazilian Economy; therefore we identify the sectors in the supply chain (backward and forward). Having identified those sectors, we analyze the spatial distributions of the initial investment and their supply chain accordingly to RAIS Data, a labor minister administrative record with a very rich regional coverage in spatial terms in Brasil. We calculate bivariate Moran's I, EGK co-agglomeration indexes and some other simpler indexes of co-agglomeration.

*Gateway H*

## **TRANS BORDER COOPERATION, SPORT MEGA EVENTS AND DEVELOPMENT: STAKEHOLDERS, INTERESTS AND MECHANISM BEHIND EUROPEAN FOOTBALL CHAMPIONSHIP EURO 2012 IN POLAND AND UKRAINE**

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There is a widespread notion that sport mega events bring numerous and significant benefits to organizing regions (places). However, according to international literature those benefits are at least doubtful. The pace of increase of the costs is enormous (Olympic Games in Beijing, China close to \$ 50 billion, while in Sochi, Russia, exceeding this amount). Increasingly brand owners (organizations as FIFA, UEFA or International Olympic Committee, in fact NGOs established by private persons or organizations) in order to "dilute" the costs, disperse them among more public bodies, try to share the increasing costs among growing number of places (regions) and often countries in order to diminish the costs to be covered by single authority and make it more enthusiastic about getting involved. Recently there were first examples of social protests against organization of sport mega events (in Bayern, Germany and Brazil, both in 2013). But still representatives of sport organizations, authorities, media and general public often tend to share positive attitude towards sport mega-events presenting short and long term benefits in the field of economy, infrastructure development, urban renewal, place marketing and promotion. This is to a large extent happening under strong influence of public presentations and interviews by representatives of organizations (bodies) most interested in execution of a given sport mega event. There is no proof that the benefits occur or that they prevail over the sunk-costs, persistently omitted (at least understated) in all proposal or presented as leading to positive changes (benefits). At the time of decision making by public authorities it is a question of faith into promises, not facts about costs, as these are known finally much later. As in case of many public projects real costs are much bigger than in the proposal as many costs elements are minimized or not presented while benefits are extremely oversized in order to convince public opinion and decision makers.

Two years after EURO 2012 in Poland and Ukraine it is possible to try to assess its results in various fields, to identify and analyse the stakeholders interests and mechanism leading to decision on organization. Main thesis of this paper is that EURO 2012 in Poland and Ukraine instead of expected profits (benefits) resulted in large costs to the public budgets which were never compensated in any way. In order to corroborate the thesis analysis will be based on desk review, study visits and IDI with the representatives of main stakeholders. The following topics will be taken into account: sport mega events cost-benefit literature review, analysis of the process leading to final decision about organization of the event, identification and characteristic of behavior of main stakeholders before, during and after the event, assessment of the level and distribution of

real costs and benefits. Paper will end up with conclusions and recommendation for public bodies as main financial contributors to organization budget.

*Gateway T*

## **PRIVATE INVESTMENTS IN PUBLIC SPACE: NEGOTIATING FOR FUNDING DUTCH BUSINESS IMPROVEMENT DISTRICTS**

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Recently, regulation to allow the formation of business improvement districts (BIDs) has been introduced in the Netherlands. Such business improvement districts are areas in which private businesses pay an additional tax or levy in order to provide for additional services, which are supplemental to the services provided by a municipality. The services can include marketing, cleaning, accessibility improvements, and security.

The introduction of BIDs in the Netherlands can be considered as successful, if measured by the interest shown by businesses to participate in a test program. Compared to other countries, the BIDs in the Netherlands are relatively small-scale. Participating private businesses mainly found each other in financing small-scale park management measures, advertisement campaigns and improvements to public space. The Dutch regulations state that two-third of the businesses should agree to form a district and these businesses should represent at least half of the real estate value. In that case all the businesses can be forced to pay the additional tax or levy. However, it remains unclear how businesses regard these conditions that must be met in order to form improvement districts. In addition, the negotiation processes between businesses, and especially the conditions that determine whether businesses are willing to join the improvement district, are currently unknown for the Dutch context. In this paper, we therefore aim to identify the essential conditions for applying business improvement districts in the Netherlands. We conducted several game experiments with practitioners that simulate the negotiation process of setting up BIDs. In these experiments, we specifically examined coalition building and the role of free riders, the distribution of the investments over the participating businesses and the role of information availability in setting up these coalitions and investment distributions.

We tested the negotiations in two settings: with closed and with revealed information on each business' profits when a BID is set up. We find that in closed information negotiations, businesses tend to agree more easily on the necessary contributions for setting up a BID. In this case, the contribution usually involves an equal contribution of parties, a fixed amount. In revealed information on businesses investments and profits, it is harder to reach an agreement to set up a BID. However, if an agreement is reached it involves a more fair distribution of contributions: the investment is relative to the size of the business and the extent to which businesses profit from setting up a BID.

We can conclude that the BID instrument can help to unite private businesses and enable investments in public space. In the negotiations, businesses come up with a similar distribution of investments to what is proposed in the legislation. However, based on the experiments, it is recommended to be careful about sharing information. It is demonstrated that knowledge on each other's financial structure could negatively affect the success of negotiation processes, and as a result hinder the set up of successful BIDs.

## **INNOVATION, VIOLENCE AND RESILIENCE**

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**Aruba Khalid, INSEAD, UNITED ARAB EMIRATES**

It is widely acknowledged that crime and violence hinder economic growth and prosperity by interfering with education, health, security and thus with productivity and innovation (Brauer & Marlin, 2008). Peace and stability attract and retain resources essential for innovation, such as investment and highly skilled workers, thus ensuring the protection of personal and property rights and driving growth, entrepreneurship and innovation. Conversely, crime, violence and political instability are commonly found to add cost burdens on economies visibly deteriorating growth and inhibiting innovation (Brauer et al, 2008). Studies mapping the impact of crime and violence have found that criminal and violent activities impose direct and indirect costs on economies through various channels (Detotto & Otranto, 2010). For instance, crime and violence imposes direct economic costs to countries by adding to their health and security spending. In 2011, the Brazilian government spent R\$61 billion on public safety seeking to curb violence and crime (FGV, IBRE, 2014). Other studies have found that the lack of peace can also invisibly inhibit innovation by deterring investment which is a key driver of innovation. In 2009, the total annual cost of criminal activity accounted for 11.9 per cent of the GDP in the United States and 6.5 per cent in Britain). For instance, according to studies assessing the economic impact of global terrorism, the gross world product may have been 11 per cent higher in the absence of terrorist activities. Consequently, crime, violence and instability act as a 'tax' on economies by reducing foreign and domestic investments, diminishing firms competitiveness, increasing inefficiency and uncertainty and reallocating resources (Detotto. et al, 2010).

However, very little research has been dedicated to observing economies which demonstrate relatively high levels of innovation despite simultaneously having high levels of violence, crime or instability. Our research shows that economies such as Mexico and South Africa demonstrate high levels of innovation (as measured by the World Intellectual Property Organization patent filing and trademark registration statistics) despite suffering high levels of violence as measured by the Global Peace Index (2013). Similarly, Lebanon, Turkey, Jordan and Israel exhibit high levels of innovation despite enduring high levels of terrorist acts. These counter intuitive results indicate the existence of 'resilience' in certain economies in the context of innovation. In this paper, we firstly examine the innovation performance of countries benchmarked against their levels of violence and instability. Secondly, we analyze the emerging patterns of relationships. Thirdly, we look for anomalies and fourthly take a deeper look at these anomalies in order to explain the factors behind their outlying performance.

## **REGIONAL DEVELOPMENT, SPATIAL CONCENTRATION AND ECONOMIC SPECIALIZATION IN BRAZIL: RECENT TRENDS OF EMPLOYMENT INDICATORS**

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**Lílian Santos Marques Severino, Federal University of Uberlândia and Scientific Initiation scholarship - Fapemig, BRAZIL**

This study examines recent trends of regional development in Brazil, focusing on changes in spatial distribution of production activities, using formal employment indicators in the period 1985/2010, and seeking to relate these changes with economic specialization at municipal level.

After examining the debate on the recent trends of concentration of economic activity in the bibliography, it discusses recent evolution in the concentration of production activities in Brazil, by examining the concentration of formal employment among the units of the Brazilian Federation in 1985 and 2010.

After that, the focus is on disaggregated analysis at municipal level. It examines a wide range of selected municipalities: those with more than 10,000 formal employees in 2010, corresponding to 518 municipalities,

which together account for about 80% of GDP and formal employment in Brazil in 1985 and 2010. Methodology used at municipal-level analysis is presented, as well the database used and the selection of municipalities. Then, results are presented and discussed, regarding the dynamics and classification of selected municipalities, classified according to the variation of its share of total employment in Brazil over the period.

Then the analysis turns to the municipalities that have expanded their participation in a relevant way, classified as Growing. These counties are examined for their economic specialization and its evolution in time.

In the context of the debate about the trends of the Brazilian regional development, changes in the spatial concentration of productive activities and in regional specialization come constituting the object of research and analysis. Examination of data on formal employment allows addressing some important changes characterizing trends and treating important for understanding the dynamic Brazilian regional issues in the recent period. In summary, this analysis, which focused on the period 1985/2010 showed the following main points:

a) The distribution of formal employment between Federal States is somewhat less concentrated than the distribution of GDP. During this period there was a slight reduction in the level of concentration in both indicators, although stability tends to predominate;

b) Among the 518 selected municipalities, which are the most important in formal employment and the national GDP, accounting together for more than 80 % of these indicators, the majority (301) increased their participation considered relevant. However, much remained stable (116 municipalities) and a significant portion (101 municipalities) decreased, showing that there was a heterogeneous behavior of selected over the period 1985/2010 municipalities;

c) Municipalities classified as Growing are distributed among most of the Federative Units, predominantly in the Southeast and South regions;

d) In relation to sectoral specialization, municipalities classified as increasing specialization in Industry and Agriculture are predominant. Between 1985 and 2010, decreased the proportion of municipalities with consolidated specialization, while among specialized municipalities, it increased specialization in Industry and Construction, at the expense of the sectors of Agriculture, Trade and Services;

e) At a more disaggregated analysis results show that, among the municipalities classified as Growing, there was increasing specialization in industrial subsectors with higher technological content and higher value added (especially electric material chemistry, and transport equipment) over more traditional sub-sectors (agriculture, non-metallic minerals, wood and furniture, for example).

Thus, although the analysis period to submit certain stability between the Federative Units, significant changes occur in the spatial distribution of activities at the municipal level, with different dynamics between the selected municipalities. It also appears that the differentiated dynamics of municipalities is related to their specialization: the set of municipalities which significantly increased their participation in formal national employment showed signs of reduction in the degree of specialization, while that among specialized municipalities, increased the number of municipalities with a specialization in industries with higher technological content over traditional sectors.

The contrast of these trajectories with recent trends of the Brazilian economy is certainly important for further analysis and debate. Indeed this dynamics of municipalities is also linked to the differential impact of macroeconomic policies and infrastructure, which can be lines of research and additional paths for explaining trends.

## **ASSESSING TERRITORIAL IMPACTS AT THE REGIONAL LEVEL: THE CASE OF THE EU COHESION POLICY IN ALGARVE**

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This paper focuses in presenting the main territorial impacts of the projects approved under the auspices of the EU Cohesion Policy in Algarve (Portugal), over the last couple of decades (1990-2010). In general terms, it tunes up the TARGET\_TIA methodology to assess the territorial impacts at the regional level. More concretely, it analyses the territorial impacts in the four main dimensions of territorial cohesion: socioeconomic cohesion, environmental sustainability, territorial governance/cooperation, and urban polycentricity. In syntheses, the territorial impacts of the EU Cohesion Policy in Algarve were moderately positive in stimulating regional development. In some areas this impact was quite positive and unquestionable: improved accessibilities, improved social infrastructures, and improved basic sanitation infrastructures. In contrast, negative impacts were detected in some components associated with the urban polycentricity (urban hierarchy and urban distribution/concentration), since the bulk of the structural funds (in total) was concentrated in the most densely populated and dynamic urban areas (Faro, Portimão, Loulé and Albufeira). Consequently, the goal of a more balanced and harmonious Algarve territory was not exactly attained.

## **EUROPEAN SMART CITIES. THE CASE OF MADRID CITY**

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The debates on the future of cities in western countries have been in the last years very influenced by the subject of the “smart cities” (SC). The concept of SC can be synthesized to avoid any ambiguity-given the present polysemy of the term- like the urban agglomeration resulting of the combination of an economy, mobility, environment, styles of life and intelligent governance.

The statistical source will be “Urban Audit” of Eurostat, that offers data of the European cities of the UE-27 for several years, although here it is used the most recent and last available corresponding to year 2009.

The variables are those that reflect different aspects that would characterize to a SC: from the urban production to sectorial employment, from human capital to urban accessibility, from public transport to Information and Communication Technologies (ICT) penetration, including proxies of social cohesion and income distribution, and environment quality.

The method of analysis of data is the partial correlation between variables. The procedure of partial correlation allows to study the existing linear relation between two variables being controlled the possible effect of one or more variable strangers. A coefficient of partial correlation is a technique of statistical control that expresses the degree of existing linear relation between two variables after eliminating of both the effect attributable to third variables.

The increasing process of urbanization in Europe and, particularly, in Spain and Madrid, demands a new conception of cities that makes them more inhabitable, more economically efficient, more socially balanced, more environmentally responsible and more politically participative.

This concept of city can generate new opportunities of development in terms of a suitable integration of the ICT in different urban systems, an optimization of economic processes, more sustainable power consumption, a development of a more inclusive society and a more democratic government.



## **LEVELS OF INNOVATION SYSTEMS: COMPETITION OR COMPLEMENTARITY? THE CASE OF CHINA**

**Julie Tian Miao, St Andrews University, UNITED KINGDOM**

Notwithstanding the popularity of the innovation system (IS) theory, the literature is largely silent on the effects of the relationship between different levels of ISs on innovative activity and the efficacy of public policy. This paper thus sets out to explore the relationship between the national (NIS), regional (RIS), and local (LIS) ISs against the background of China. The result shows that the twenty-nine provinces in China were clustered into five distinct sub-groups. For hinterland regions, it was noticeable that while their science parks generally function better as LISs compared to their host regions, China's NIS still casts the most significant influence, as has been shown in the case of the Optics Valley of China (OVC) within Hubei Province. Overall, it seems a place's economic strength and administrative power and autonomy are among the most crucial factors determining the relative fitness of ISs on different geographical levels.

## **THE OTHER SIDE OF THE EQUATION: LAND MARKET SPECULATION AND HOUSING SUPPLY IN BRAZIL AND CHINA**

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**Duncan Maclellann, St Andrews University, UNITED KINGDOM**

As two of the fastest growing countries, Brazil and China benefit significantly from their expanding housing sectors. But the rising property price, and 'scars' of informal favela housing in Brazil and urban villages in China, have attracted growing criticisms on housing investment speculation, especially on the demand side. Nevertheless, on the supply side, the unique land ownerships in the two countries have created room for individual land speculation in Brazil and public land speculation in China, which have further distorted the market signal but with fewer thorough study. Therefore this paper aims to address the questions of what are the scales and impacts of these speculations, as well as how do the general housing sector reforms in the two countries interact with the land market speculation. Drawing on mainly secondary data, we found that the transmitting mechanisms from land speculation to housing supply is different between the two countries, and their housing reforms have created a dissimilar regulation backgrounds but with similar market results.

## **CLUSTER AND FIRMS PRODUCTIVITY: THE MISSING NEXUS**

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Empirical studies in spatial economics have shown that agglomeration economies may be a source of economic competitiveness across regions (Dei Ottati, 2000). At the same time, agglomeration externalities may affect the irregular distribution of activities.

Particular emphasis has recently been placed in spatial economics and regional science on the territorial endogenous determinants of economic activity and competitiveness (among the others Ottaviano, 2008; Rodriguez-Pose, 1998, 2009). In this context the agglomeration economy is central. The phenomenon of industrial agglomeration has received a fair deal of attention both in relation to theoretical and empirical research. In particular, a vast amount of studies about industrial districts and clusters have been published since the first contribution given by Marshall (1920). A central part of the literature within this field was concerned with the importance of endogenous development processes, by focusing on the internal structure and dynamics of IDs & Cs (Beccatini and Rullan 1996, Paniccia 2002). Although the vast number of attention

that the topic has received in the last decades, it still attracts the interest of researchers from various fields. One reason for that is the fact that when a wide consensus was reached on the importance of geographical proximity and agglomeration and local spillovers for the regional economic growth (Biggiero 1999; Belussi et al. 2003; Gertler and Wolfe 2006).

Different kinds of agglomeration economies are hypothesized to foster regional growth, however empirical researches highlight ambiguous results (Rosenthal and Strange, 2004; De Groot et al., 2009; Puga, 2010). This ambiguity is powered by conceptual and measurement issues. In fact, a lack of research on firm-level performance in agglomerations context may be the central source of the uncertain results. We assume a micro-foundation of agglomeration economies and we accept the heterogeneity idea at both firms and spatial level. Recent overviews (i.e. van Oort et al., 2012) show that the heterogeneity issue is a key element in terms of scale of space, growth and aggregation definition. From our point of view, this should be introduced in firms' agglomeration studies, using hierarchical or multilevel model.

This paper investigates how the firms' productivity is affected not only by their characteristics (and behavior), but also by the possibility to be part of a local cluster and some additional regional characteristics. When we think at the firm's productivity we automatically think about the context in which that firm works, and vice-versa; however, few studies try to take into account that linkages. Multilevel modelling techniques allow to take both regional level and firms into account simultaneously (Tramner and Elliot, 2007). In fact, if we assume that an equation we estimate at district level also occurs at the firm level –that is to make a cross level inference- we are not allowing for the fact that firms vary within regional/local context. Adopting the MLM we solve this ecological fallacy problem and we automatically assume that in general industrial concentration occurs. Multilevel modeling, which allows micro levels and macro levels to be modeled simultaneously, is suitable for reducing the ambiguity surrounding the agglomeration-firm performance relationship and for addressing spatial, sectorial and cross-level heterogeneity (Fazio e Piacentino, 2009).

Starting from this point of view, the present work aims to investigate the economic competitiveness and agglomeration in space using a multilevel analysis of firms' productivity. We contribute to the debate considering aspects of specification and estimation of multilevel-models and lays out the implications for competitive strategy and economic policy.

The paper is further structured as follows. After introducing theories on agglomeration economies (section 2) we introduce the reason of the missing link between agglomeration economies and firm's performance (section 3). Section 4 briefly explains the logic and structure of multilevel modeling. We then present the application (section 5), in which the interaction effects in multilevel modeling is the key value added of the main results (section 6). Section 7 concludes with a discussion of the method and policy implications. We conclude that the effects of different types of agglomeration on firm performance are strongly and non-linearly moderated by a firm's combinative capabilities. When cross level interaction effects are included, the model fit improves at both regional and firm levels.

In fact, the multilevel model application highlights that the relation between different agglomeration economies and firm's performance is qualitatively dissimilar for different levels of firms' size: the relation is positive for medium, but negative for large and small firms.

Considering the multilevel effect of a cluster on a firm's productivity may not only reduce the ambiguity surrounding the agglomeration-firm performance relation, but also clarify the policy strategy in terms of the extent to which the agglomeration environment of firms is important for boosting their performance.

## **EU-CHINA AND EU-BRAZIL CROSS-NATIONAL POLICY TRANSFER AND LEARNING: THE CASE OF REGIONAL DEVELOPMENT POLICY**

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This paper investigates the EU-Brazil and EU-China dialogue on regional development policy, as a field of international cooperation. Policy transfer in this area is still relatively under-researched and is a puzzling case for a number of reasons: first, regional policy is inward-oriented, as it targets the catching up of regions with prevailing national economic and social standards; second, as a place-based policy, regional policy is intrinsically context-specific, as both policy responses and outcomes are connected to the unique situation of each given territorial reality; third, its distributive (and often redistributive) nature make regional policy reliant on complex multi-level governmental negotiations; lastly, its strategic goals, thematic scope and financial scale are largely affected by the national levels of economic development, which differ vastly between the Western world and the emerging economies. This background notwithstanding, knowledge exchange and policy transfer have successfully taken place between the EU and Brazil and between the EU and China since the mid-2000s. This has happened through institutionalized, concrete activities, which have delivered tangible outcomes on the regional policy frameworks of Brazil and China. This study discusses and compares the reasons for engagement in such unlikely policy learning effort; identifies the mechanism of policy transfer and their degree of institutionalization; and reflects on the conditions that have made this case of policy diffusion more or less successful, drawing comparative lessons from the two experiences. The study is based on semi-structured interviews, surveys, participant observation and informal exchanges during high-level seminars (EU-China, EU-Brazil) and analyses of strategic documents and legislation.

## **CHANGES IN SPATIAL DISTRIBUTION OF SANITATION AND INCOME INEQUALITY IN BRAZILIAN SLUMS BETWEEN THE YEARS 2000 AND 2010**

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During the second half of the XIX century, Brazil experienced rapid urbanization that posed the challenge of providing good quality housing and urban infrastructure to the fast growing population in big cities. This challenge rarely have been tackled properly, and the country reached the XX century with serious problems of slums: housing with poor urban services and some sort of informal land tenure.

To help to study the issue, data is needed. The main source used for the detection of the phenomena of slums is the data available from population censuses, which are not comparable over time. The statistics office (IBGE) alerts that changes in classification procedures improved considerably the identification of slums in the 2010 Census compared to previous census. This article overcomes that obstacle, using a methodology that enables the comparison of census data on slums living conditions between 2000 and 2010. The method is based on the possibility to compare the census tracts between 2000 and 2010, creating “minimum comparable areas” of census tracts. We then explore the information of the slum areas of the census 2010 to reclassify the slum areas in the 2000 census.

The first goal of the article is to use census data on water provision and sewage collection for the two Census years to test if there was a positive change in the spatial distribution of sanitation in slums. We evaluate specifically the local spatial disparity of neighboring slum and regular areas. We look for the existence of more local spatial auto-correlation (LISA) clusters of low values in slums and if the amount of low value clusters decreased from 2000 to 2010. There have been attempts of the government to extend sanitation for as much

dwellings as possible in the country and considerable improvement has been achieved. Still it is important to check if this improvement has reached slums areas.

Then, as a second goal, we analyze income inequality Gini coefficient inside each “minimum comparable area” to evaluate if slums are more or less internally unequal than regular areas. We also analyze if this internal income inequality increased on average, from 2000 to 2010. This is done using data aggregated by income range, neglecting the inequality inside each income range. We use a calculation of Gini coefficient for this situation proposed by Kakwani (1980). To our knowledge, it is the first time Gini coefficient is calculated for such small areas as census tracts and inside slums for Brazil.

#### *Gateway A*

### **STRETCHING OF THE CLUSTER CONCEPT: ‘HUBBING’, ‘BLENDING’ OR MIXING?**

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Clusters and cluster development are often used as container categories both in academia and beyond. Theories on industrial clusters have been translated into concrete policies (Uyarra, 2010), and the intention of several national and regional policy makers has been to encourage and strengthen processes of clustering in order to promote industrial development (Fløysand et al., 2012). Hence, the cluster concept has lived a ‘life of its own’ (Martin and Sunley, 2003), and in the process a “stretching” of the original (though vague) cluster definition has evolved. This is underlined by the eagerness, most notably by practitioners, to discover and develop cluster projects in different settings (Uyarra and Ramlogan, 2012). Cluster dynamics are obvious in some cluster projects, but in others they can be hard to detect (or even non-existent) – there is indeed a difference between a materialized industrial cluster and a cluster project. Therefore, a cluster project should be considered procedural (Fløysand et al., 2012), and its stakeholders, through their practice, add meaning to what a cluster is and what it could and should be.

Academic theories have highlighted the importance of balancing different geographical levels (e.g. local buzz and global pipelines) (Bathelt et al., 2004), while newer contributions also emphasize the importance of related variety (Boschma and Frenken, 2011), e.g. balancing specialization and diversification (Cooke, 2012a, Cooke, 2012b). However, these theoretical contributions do not give clear and operationalized definitions on how to implement these ideas in practice. This leaves a room for action for practitioners to utilize processes of scale and scope through ‘their own’ definitions of clusters. This is materialized through divergent strategies for cluster development.

Different cluster projects varyingly focus on ‘hubbing,’ i.e. stretching of cluster scale, and/or ‘blending,’ i.e. stretching of cluster scope. Since the frontier of cluster research is yet to give clear answers to what constitutes a cluster along the scale and scope dimensions (see e.g. Malmberg and Power, 2006), the practical understanding of cluster is up for grabs. Cluster project stakeholders are themselves filling the concept with meaning. In other words, in encounters with the real world cluster theory is adapted and fitted.

Relying on three case studies from cluster projects in Norway, we exemplify different approaches to cluster development. We identify diversified cluster development strategies emphasizing ‘hubbing’ (scale extension) and/or ‘blending’ (scope extension) or a mix. The three cases are chosen from the national cluster program “Norwegian Centres of Expertise”, a program designated for mature and dynamic industrial clusters. We exemplify how the maritime cluster in North-Western Norway has developed a strategy stretching the scope of the cluster and resembling the RIS-thinking, whereas the subsea cluster in Western Norway is developing through a hub-and-spoke strategy, i.e. stretching the scale of the cluster. Lastly, the Oslo Cancer Cluster case illustrates how a strong regional cluster is developing towards a national sectorial innovation system (utilizing scale and scope). Summing up, the cases illustrate how cluster practitioners have a room for action for generating and building their own understandings of what a cluster is and what it could and should be. Such

encounters between cluster theory and cluster practice illustrate how the (vague) cluster concept is being re-conceptualized and filled with new content in meetings with the material world. The academic struggle of defining the cluster concept certainly leaves a wiggle-room for practitioners.

*Gateway B*

## **THE ROLE OF PERSONAL PROXIMITY IN COLLABORATIONS: THE CASE OF DUTCH NANOTECHNOLOGY**

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While collaborations between academics and others have been centre-stage for innovation and technological change ever since the Industrial Revolution (Mowery, 2009) they might fail because of a lack of proximity between partners. Different kinds of proximity, i.e., geographical, organizational, institutional, cognitive and social proximity interactively drive innovation (Boschma, 2005) as well as formation and outcomes of collaborations (e.g. Broekel and Boschma, 2012; Cunningham and Werker, 2012). However, to date, proximity is reduced to dimensions that are almost purely exogenous to the individuals that actually engage in collaborations. At the same time, there is ample reason to believe that elements at a personal level affect collaborations. The very core of academic engagement activities centres around the individual (Perkmann et al., 2013, p.424): “Both academic engagement and commercialisation tend to be individually driven and pursued on a discretionary basis.” In order to account for this we use the concept of personal proximity.

Personal proximity encompasses the degree of similarities in agents’ personal characteristics and behaviour (cf. this and the following Caniëls et al., forthcoming). Similar individuals are more likely to develop a personal ‘click’ between them. In particular, collaborations thrive on “a mutual feeling of acceptance, appreciation and interest in each other’s ideas” (Caniëls et al., forthcoming, p.7). Personal proximity can make or break the deal of collaborating. It enables collaboration, because collaborators – when personally close – are much more likely to form a collaboration as they are understanding each other. A lack of personal proximity might hamper collaboration, for example, when collaborators’ traits result in conflicting working routines or different approaches to problem-solving. In some instances partners simply do not get along. At the end of the day it comes down to collaborating partners sufficiently fitting regarding personal features for collaborations to prosper.

In this paper we investigate how proximity and in particular personal proximity helps overcoming challenges hampering collaborations with others. Exploring personal proximity helps understanding behaviour of individual agents and its impact on the dynamics of knowledge networks. Personal proximity may not only lead to more successful collaborations in terms of outcomes, but also increase the likelihood of establishing, renewing, intensifying and broadening of collaborations. It is particularly important to understand relationships between proximity and collaboration as public funding is often misdirected to indirectly support firms and universities in those areas that do not require, for example, geographical proximity (D’Este et al., 2013). Our multiple-case study design investigates the role of personal proximity in nanotechnology research collaborations. We combine qualitative and quantitative data. A publication analysis shows the position of the scholars we interviewed in the worldwide nanotechnology network. Semi-structured interviews with researchers at three universities of technology in the Netherlands are conducted to analyse the role of personal and related proximities for collaborations.

Our findings suggests that individual aspects of proximity affect the formation and maintenance of collaborations. Personal proximity between collaboration partners smoothens collaborative processes, thereby enabling collaborators to better exploit opportunities created by their cognitive and organizational proximity. Eventually, personally close partners tend to continue working together for more than one project while partners not personally close tend to terminate collaborations. In the latter cases the investment in the collaboration and the knowledge created in the collaboration is partly lost. Therefore, university management and research policy also have a vested interest in personal proximity. While the individual might be more

cautious with collaborations lacking sufficient personal proximity, management and policy might invest in training to enable scholars working together with people less like themselves. A diversity policy may also help supporting personal proximity between diverse kinds of scholars.

*Gateway B*

## **DEINDUSTRIALIZATION, SUBURBANIZATION, AGING POPULATION AND CLIMATE CHANGE INDUCED MIGRATION AS CAUSES OF URBAN DECLINE IN PORTUGAL**

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Shrinking cities are an increasing international phenomenon. Despite the growing interest for the subject, how the population is affected by this phenomenon has not been considered in policy-making. Global cities act as magnets for population, resources, infrastructure and skills while other cities and entire regions are facing population loss and economic downturn, are suffering from low levels of entrepreneurship, innovation and intellectual engagement and are presenting social problems as symptoms of a structural crisis.

This research intends to understand the forces of attraction and repulsion of the Portuguese declining cities and identify the policies preferred by citizens residing in these cities, being thus an innovative aspect of this research. The central aim of this work is to point out viable urban regeneration strategies to implement in some Portuguese cities identified as flagships for each of the typologies that have led to the loss of population. Four Portuguese cities that typify the main causes for the urban decline are studied: an old mining town (city whose development was based on a single industry), a satellite suburbanized city, a city with a rapid rate of population aging and a city affected by climate change induced migration. The information supporting this research is obtained by applying a questionnaire in four declining cities, implemented by phone on 1000 residents. Based on this questionnaire it will be possible to identify the cities' main forces of attraction and repulsion and consequently outline the policies more suited to be implemented in each specific case.

The multidisciplinary research, covering various knowledge areas (landscape architecture, environment, economics and politics), will provide answers to the complex problem of finding the most appropriate strategies for each of the four shrinking cities selected as case study of this research. Green infrastructure strategies, transportation strategies, housing renewal, brownfield rehabilitation, local economic development strategies, city center commercial revitalization were addressed. Strategies for adapting to climate change, biotic, aquatic and climatic health of cities, and those concerned with the livelihood strategies were discussed. Action-oriented planning strategies and theories are required in order to address the climate change challenge. The resulting recommendations will be based on community involvement, applying in practice the European guidelines to approach the decision of the citizen, finding proposals that ensure the sustainability of cities based on their unique characteristics and spirit. The proposed strategies are still subject to validation by stakeholders from each of the cities, so as to be able to convert the main results of this research into effective policy decisions to be implemented.

## **THE PANORAMA OF THE PHARMACEUTICAL SECTOR AND ITS INTERACTION WITH THE UNIVERSITY IN RIO DE JANEIRO**

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The regional system of innovation approach enables a deeper understanding of the process of innovation in one region. It helps to identify the main actors involved in the learning process to generate innovations and the obstacles that need to be solved by local institutions. Lundvall et al. (2002) have said the regional approach is complementary to the national system of innovation approach. Cooke et al. (1997) offer an evaluation of the regional innovation systems under two perspectives: one which emphasizes the issue concerning the importance of regional policies to ensure regional autonomy and the other one from the standpoint of the systemic potential, such as the strengthening of industry-university interaction. This article is focused on these two perspectives.

The general objective of the study is to analyze the performance of the pharmaceutical system of innovation in the State of Rio de Janeiro in the last 15 years and to discuss the actions of its actors to develop the sector and generate innovations, especially through industry-university interaction. The methodology used was a case study based on literature review, analysis of secondary data and field work to obtain primary data. Interviews were carried out with 23 important actors of the pharmaceutical sector between 2008 and 2012, in the context of a broader research made in a national level. The results obtained are a compilation of the main factors identified by the actors.

The main findings based on the literature gave us a picture about the pharmaceutical sector and the actors of the regional system of innovation. It showed that Rio de Janeiro represents the second main concentration of pharmaceutical industries and laboratories of the country, after São Paulo. It is composed of multinational, private national, government national industries, universities and the state government in each different scope – policy-making, regulation and funding. Moreover, the existence of a strong scientific capacity and of human resources formation, particularly, in the areas related to the pharmaceutical sector, present in the universities in Rio de Janeiro should be emphasized.

However, in productive terms, the regional pharmaceutical sector presents a strong fall, as demonstrated in the Annual Relation of Social Information of the Ministry of Labor and Employment (RAIS/MTE) data analysis. From the number of establishments and formal employment, it can be observed that there is a significant reduction in the participation of the pharmaceutical sector in Rio in the country's total. It is worth observing that this scenario can be also noticed in terms of physical production, in accordance with data from the Monthly Industrial Research – Physical Production of the Brazilian Institute of Geography and Statistics (PIM-PF/IBGE).

In the field work, the interviewees mentioned that there is a great scientific capacity installed in the state, but without a strong industry-university pattern of interaction. According to them: a) there is a lack of incentives and support to the pharmaceutical sector by the state government, b) tax burden in the state is very high and c) the sector had its development focused on São Paulo, where it still is strongly concentrated. These factors would be the reason for this fall in the state, representing great barriers for a better integration between industries and universities.

In conclusion, in spite of the academic excellence of Rio de Janeiro being seen as a great advantage for the pharmaceutical sector in the state, this has not been sufficient to promote industry-university interaction. This is due to the state government taking a long time to carry out concrete actions to foster production and the innovation capacity of the pharmaceutical industries. The creation of a new executive group focused on the development of biotechnology in the state and the first actions that are being taken demonstrate that the scenario will tend towards changes in the next years with the strengthening of the pharmaceutical sector and, consequently, the expansion of interaction with local universities.

## HOW GREEN IS THE GREEN: IMPACTS CAUSED BY DECISION MAKING

**Satya Patchineelam, BRAZIL**

The upcoming 2016 Rio de Janeiro Summer Olympic Games, is aiming to show a sustainable event to the world. Also named by the Brazilian Authorities as the 'Green Games for a Blue Planet' Rio 2016 intends to celebrate a more just and green development. During the bidding period, for one of the biggest and more prestigious events in the world, authorities presented the Rio 2016 as an opportunity to minimize the social differences in the country and exhibit a sustainable and low impact games.

The purpose of this paper is to discuss the impact caused by the Rio 2016 Olympic Games and critically review the impact both within the city of Rio and in an Environmental Protected Area that was chosen by the authorities for the construction of the golf course. There will be an analysis of the policies that effect the development of the Rio 2016 games whilst assessing the environmental and social impacts of this development.

The main question this paper aims to answer is: To what extent are the Rio 2016 games environmentally and socially just – while upholding the rights of all citizens?

The case study chosen is a protected area located in Barra da Tijuca - Rio de Janeiro, the Environmental Protected Area of Marapendi, is where the Olympic Golf Course will be constructed. This construction is having major social and environmental effects. This green area is a remaining piece of the Atlantic Forest that is found in the middle of the city. This small green space with a high ecological value has species of animals and plants that are found in the section of "critically endangered", of the Red Book of Brazilian Fauna Threatened (MMA, 2010). The construction in this area will reduce their natural habitat and destroy some of the remaining forest that still resists the urban growth. And will also increase the value of the real estate in the buildings that will surround this venue, enabling only a selected percentage of the population to afford it. A number of people have protested against the construction for the 2016 Olympics Game in this protected area that is representing many environmental injustices to the society and the natural environment.

## RE-SCALING CULTURAL GOVERNANCE SPACES

**Michael Thyrestrup Pedersen, Aalborg University, DENMARK**

This paper takes up the challenges that municipalities face in the increased competition between places, and where culture and experience economy have become widespread acknowledged parameters of competition for cities as well as municipalities. More explicitly, the starting point concerns the challenges within the planning of cultural experiences aimed at local inhabitants, and the priorities in the communities based on their current situation.

Through the construction of an analytical framework the purpose of the paper is to examine how cultural cooperation between local communities and the national government, such as cultural regions, contributes to the local cultural development. This is being examined through a concrete empirical context – East Jutland Growth Alliance, a cultural cooperation between the communities of Randers, Viborg, Silkeborg and Horsens, along with the Ministry of Culture. The cooperation began as a one-year development agreement for 2008, was prolonged to a three-year cultural agreement, and further extended with the current agreement for 2012-2015.

The paper is concerned with the unjust geographical distribution of national cultural means, favouring the development of the capital city; and how this problem is attempted dealt with by municipalities working together in the field of culture.



Overall, the paper is built around two main parts; a theoretical and an empirical. The theoretical part centres around two approaches which in recent years have become subject to increasing focus within local planning - Culture and Experience; and Governance. These approaches constitute the field of research, which is supplemented by a space and scale perspective, in order to sharpen the focus and at the same time increase the complexity within the analytical framework. The empirical part focuses on the construction of East Jutland Growth Alliance, more accurately how the spaces of cultural experiences are produced as an interaction between the national and regional scale. The administrative steering committee on regional scale is the backbone in this interaction.

Methodologically, qualitative methods with a predominantly hermeneutic and social constructivist scientific approach are used. These two melt together in the space and scale perspective that is applied to the field of research.

The conclusions of the paper aim to be relevant both practically and academically. The central academic contribution is tied to how, in the field of tension between the material and the imagined space, the spaces of cultural experiences are produced, as well as to different scales of governance and cultural priorities. The central practical contribution is that the cultural regions to some extent have an effect on the development of the local culture, but that there is a general lack of funds in the municipalities, which occasionally affects a whole-hearted priority of the cooperation.

*Gateway N*

## **CLIMATE AND WEATHER IMPACTS ON AGRICULTURE: THE CASE OF BRAZIL**

**Paula Pereda, USP, BRAZIL**

**Denisard Alves, USP, BRAZIL**

The central idea of this research is that long-term climate influences the planning decision of producers, while short-term weather events can be treated as shocks which move production away from the planned production. We employ a stochastic profit framework in the empirical analysis. Distinguishing between the effects of climate and weather in the production frontier framework is intuitively appealing. Still, it has not been deeply studied as shown by the relevant literature. Similarly, the theory of how stochastic frontiers models relate to long run and short run models of producer behavior seems to be still a caveat in the appropriate reference literature.

Thus, by using a translog profit frontier equation and data from the Agricultural Census of 2006 for Brazil, the average climate relevance on farmers' outcomes is tested and not rejected by the data. The marginal temperature effects calculated seem to be much higher than lower than historical rainfall levels. The partial effects of higher average summer temperature reduce production of maize and other annual crops, such as rice, beans, manioc, as well as coffee, milk, beef and other perennial crops, such as fruits. Places with higher winter temperatures might suffer adverse effect on coffee and soybean output. Only soybean production is affected positively by higher summer temperatures. One possible explanation is the current high adaptability of this crop to tropical regions, which may be able to explain these results.

The variation in technical efficiency levels is also not rejected by the data, indicating that efficiency levels differ in a statistically significant way among Brazilian farmers. The estimation of the TE leads to modeling possible determinants of farmers' deviation from optimum choices, which can be imposed by exogenous forces. This article proposes climate anomaly as a relevant determinant of farming inefficiency. The econometric test shows that climate anomalies are jointly relevant to explain the differences of technical efficiencies. The average effect due to rainfall shortcomings on farmer TE (during the summer months of 2005 and 2006) is a 5.6% reduction of the current farm profits, representing almost 15 billion dollars (in values of December 2011), which could be interpreted as the farmers' maximum willingness to pay to protect themselves against the unforeseen rainfall shortcomings in Brazil in 2006. As for the estimated temperature effects on profits, there was a gain in profits due to the year-end 2005 and year-end 2006 temperature conditions, on the order of 3.34%, or 8.9 billion dollars.

The estimates of simulated cold stresses and droughts throughout the country indicate lost profits of 13.2% to 30.5%, respectively, being slightly more intense in the southern and midwestern regions. These percentages represent 35 and 80 billion dollars of losses, respectively. Within this context, insurance instruments are important actions to protect farmers from such harmful situations. Weather index insurance is gaining importance as a possible intervention to overcome the negative impacts of climate risk on rural livelihoods and agricultural production. Weather index insurance is normally linked to rainfall anomalies (droughts, floods), extreme temperatures and precipitation (frosts, hail and rainstorms), or even to crop yield thresholds (Iturrioz 2009).

The use of a weather index linked to an insurance mechanism could be a potential policy action related to a market-driven solution, according to Hellmuth et al. (2009). Barnett and Mahul (2007) also underline the importance of understanding the mechanisms of weather impact on agricultural system models in order to design an index for this purpose. This article could be helpful in identifying the important relationships for the index design.

This research innovates as it distinguishes between the effects of climate and weather in the production frontier framework using a translog profit frontier equation. Additionally, the majority of agricultural products were considered in the analysis, as well as many technological variables as quasi-fixed inputs inside a profit function approach. Another contribution of the article is the use of precise climate data from Brazilian weather stations, which allowed the measurement of extreme weather events' impact on agricultural outcomes. By using the method applied here, climate change effects can also be measured using data from INPE and, thus, compensation actions from the technological variables considered can be calculated.

*Gateway SSB*

## **REGLAB – A SCANDINAVIAN MODEL FOR REGIONAL CAPACITY BUILDING BASED ON STRONG OWNERSHIP, HORIZONTAL LEARNING AND COMMUNITIES OF PRACTICE**

**Fredrik Rakar, Reglab, SWEDEN**

Since the 1970's, regional policy in Scandinavia has shifted from handling mainly infrastructural and industrial projects towards more fuzzy and disparate policy areas like skilled-labour supply, clusters, innovation strategies and culture. The role of the national government in regional development has devolved, allowing more decentralised strategy- and decision-making by regional bodies, and therefore pushing demands on their organizational capacity and capability forward.

In order to overcome regional disparities in capacity and resources, intra-regional laboratories for capacity building and knowledge sharing called RegLabs have evolved. The two existing RegLabs in Denmark and Sweden differ somewhat in organisation and focus to accommodate for the different regional contexts in the two countries, but share common traits like: a participative approach to learning, strong ownership and a bottom-up perspective. In Norway a similar organization called Norwegian Clusters has been set up with assistance and inspiration from the two RegLabs, and in Finland the Ministry of Employment and the Economy has invited RegLab to assist in the creation of a similar body suitable for the Finnish context.

This paper aims to show how this relatively inexpensive model of capacity building and knowledge-sharing between regions has developed into a Scandinavian model for facilitating policy implementation and contributing to a more inclusive and participatory approach towards regional development; both strengthening the capacity of the local and regional bodies, as well as functioning as a redistributive measure between them.

**Shqiperim Reka, Sheffield Hallam University, UNITED KINGDOM**

As a result of political conflict, a country's basic infrastructures as well as political, economic and social structures are destroyed and need restoration (Winter, 2008). Tourism development is considered to be a vital tool in the phase of transitioning by improving national identity and restoring the lost image, stabilizing political structures and building up the economy (Vitic & Ringer, 2008; Cichock, 1998). However, there are considerable challenges for tourism development related to the image of a war-torn and ravaged country as well as political, economic and social circumstances (Winter, 2008). Thus, in order to develop tourism effectively, a strategic approach that reflects the particular circumstances of the destination is essential.

The study evaluates whether and how challenges of tourism development in a post-conflict context are reflected in the strategic approach by using the case of Kosovo – a small country located in the centre of the Balkan Peninsula that underwent war from 1997-1999 and that is transitioning from its socialist past to a new path of democracy and market led economy. In this phase of transition tourism development is considered an essential tool to improve the country's image and achieve political and economic stability which is emphasised in the Tourism Development Strategy of Kosovo (2006). The study analyses Kosovo's tourism strategy and sets it into context with the particular challenges tourism development in Kosovo is faced with. Primary research in the form of semi-structured in-depth interviews with stakeholders of the tourism industry is conducted in order to explore the challenges of tourism development in Kosovo. Thus, this study employs a 'combined approach' of desk research (document analysis) and fieldwork research (qualitative interviewing).

The fieldwork identifies that image recovery and politico-economic circumstances are challenges for tourism development in Kosovo. It is found that particularly internal circumstances such as limited expertise and knowledge, lack of responsibility and authority (e.g. to implement legislation), lack of awareness regarding the values and potential benefits and low prioritisation of tourism hinder successful tourism development in Kosovo. The Tourism Development Strategy of Kosovo was developed by the Tourism Department from the Ministry of Trade and Industry of Kosovo (MTI) in cooperation with German Agency of Technical Cooperation (GTZ) (now: GIZ, German Agency of International Cooperation) in Regional Studies Association Global Conference 2014, Fortaleza, Brazil From Vulnerable Places to Resilient Territories: The Path to Sustainable Development order to utilise proven tourism expertise that was perceived as not available in the country. However, the study argues that only developing the strategy without conducting any knowledge transfer or training was not sufficient enough. This insufficiency did not advance the officials of the tourism department or other tourism stakeholders to a point where they could intervene in the strategy without the need for hiring international consultants in the future. With regard to the challenge of lack of responsibilities, the strategy provides objectives for achievement but there is no clear allocation of responsible parties in order to implement the objectives or obvious entrustment of the responsible bodies to monitor the processes. Thus, the strategy did not take this limitation or threat into account as it did not assign the objectives specifically to tourism stakeholders. The Tourism Strategy did not reach its approval or implementation stage due to its low priority at the time (in 2006), since the Kosovo government and the parliament were focusing their attention in establishing more immediate and essential policies to prepare the country for independency, which was achieved in 2008. In conclusion, the study argues that the Tourism Development Strategy of Kosovo inadequately integrates the challenges the country is faced with. As a result the tourism strategy is not reflective with regard to the post-conflict circumstances of Kosovo, thus was ultimately perceived infeasible and is currently not being implemented successfully.

## **USERS, INNOVATION AND DEMAND-ORIENTED POLICIES: THE CASE OF HOSPITALS AND MEDTECH FIRMS IN SOUTHERN SWEDEN**

**Josephine Rekers, CIRCLE Lund University, SWEDEN**

**Markus Grillitsch, CIRCLE, Lund University, SWEDEN**

Users have long been considered an important partner in the innovation process, playing roles such as a source of ideas for new products or services, as a co-creator and development partner, or as a demanding customer that drives up the quality of suppliers. The role of users has, however, taken on renewed prominence in recent years, particularly within the context of demand-driven or mission-oriented innovation policies, with the public sector as 'user'. In order to give meaning to such policies, it is necessary to identify opportunities as well as the capabilities needed by the public sector to play these additional roles. The aim of this paper is therefore two-fold: first, it reviews some key contributions in the literature in economic geography and innovation studies on the roles of users in innovation processes. Second, it illustrates the activities and capabilities involved in linking users and producers in the context of the health innovation system, which, taking up a large and growing share of the public budget, can be considered a prime candidate for demand-driven innovation policies. Empirically, this paper builds on a case study of the medical technology industry and their collaboration with the hospital system in Southern Sweden. Theoretically, the paper highlights that the type of procedure hospitals use to choose their industry innovation partners has an impact on the potential to realize demand-driven innovation policies. The paper concludes with recommendations for policy-makers at the hospital, regional and national level.

## **THE IMPORTANCE OF ENVIRONMENT IN ACCESSING CREDIT: AN APPLICATION TO THE CITY OF GOIANIA**

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**Tatiane Almeida de Menezes, Federal University of Pernambuco, BRAZIL**

The present paper checks whether exist any influence of the environment on loans made by the People's Bank of Goiania. Furthermore, the work seeks to capture whether any influence of the environment exists for agglomeration of delinquent individuals. The data were obtained from People's Bank of Goiania. The study is based on information diffusion models. The methodology used to detect spatial clusters is the Scan Statistics model in which the probability distributions associated with the data in spatial randomness are the Poisson and Bernoulli. The results suggest the existence of cluster both for entrepreneurs and for customers in situations of default to a period of a day or more. When analyzing clients overdue 90 days or more customers, the method indicates that customers are randomly distributed in Goiania.

## **INSTITUTIONAL ARRANGEMENTS AND DEVELOPMENT: A MULTIVARIATE AND SPACE ANALYSIS FROM MINAS GERAIS, BRAZIL**

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**Suzana Bastos, Federal University of Juiz de Fora - PPGEA- UFJF, BRAZIL**

Development theories are gaining new perspectives and these changes changed the understanding of underdevelopment in some countries and regions, as in Brazil, where there are high levels of regional inequality at different levels of spatial disaggregation. These contradictions become evident when we compare regions such as Brazilian Southeast and Northeast, or even different regions of a state, as in the state of Minas Gerais. Considering the variables of the FIRJAN Municipal Development Index (IFDM) as a reference, it is

observed that the regions at the northern of the state have not yet achieved good performance especially on issues related to education, health, employment and income. Despite the numerous variables that support this discussion, the focus of this proposal is to emphasize the institutional aspects, which can be represented by a set of norms, rules, laws and public policies that articulate and contributes to improve development indicators. Economic development is a major goal of public planning and, therefore, the formulation of public policies is subject to the understanding of various aspects of this process. Studies on the development of the regions were advancing towards the one-dimensional (economic dimension) for the multidimensional sense (health, culture, education, social, institutional and others).

State policies aimed at regional development should encourage the construction and promotion of institutional frameworks that ensure the approach of skills and abilities, nurturing social networks through the conflicts of interests, aimed at structuring of institutional arrangements that promote development regions. It is in this approach that questions the very formulation of policies to reduce regional inequalities in Minas Gerais, knowing that their differences are present in these institutional frameworks and interaction between the various actors in society in different cities and regions.

Thus, the main objective is to analyze the relationship between socioeconomic development of municipalities in Minas Gerais and institutional indicators related to state action, giving rise to the debate of whether these institutional indicators interfere with the performance of municipal socioeconomic indicators. Therefore, a Correspondence Analysis associated with a Spatial Econometric Analysis (Geographically Weighted Regression – GWR) were useful to prove the possibilities of association between groups of variables. The analysis incorporates quantitative and qualitative variables able to expand the vision concerning the determinants of regional development. Thus, when designing categorical indicators that reflect an institutional arrangement for each of the areas (education, health, employment/income) and look for an association of these indicators with those already disseminated (as IFDM), it is hoped, by hypothesis, that the latter suffer influence of these "institutional arrangements". The results showed a direct association between IFDM and institutional indicators; that is the municipalities less (more) developed are associated with a low (high) value of institutional indicators. Overall, the associations between IFDM and government spending also showed the same relationship. Understanding the link between development and institutions contributes to the construction of more specific and targeted regional public policy.

*Gateway SSa*

## **HISTORICAL CONSCIOUSNESS AND THE IDEA OF HOME**

**Sulevi Riukulehto, The University of Helsinki, FINLAND**

The research of regional identities has taken a curious direction: The politico-administrative regions such as municipalities, cities, and provinces have got the main attention. One's personal, experiential attachment to places and events has almost been forgotten. However, identity is constructed on personal level in a process where historical consciousness plays a central role.

The role of historical consciousness could be easily seen when we studied people's perceptions of their home in the Lake Kuortane region in Finland. The research data was created by ethnographic methods in 2012–13 in eleven group discussions, four outdoor group walks, and one group drive (a discussion held in a minibus) with a total of 116 informants.

The informants were heard in groups. Special interest was shown in their personal memories and their descriptions of homely landscapes. The memories and landscapes revealed in the data were understood as interpretations of their home. These are interpretations of important places (geographical interpretation) and events (historical interpretation). A third group of interpretations was found in stories that are not first hand in nature but are collectively carried in society.

In the data, every person seems to have a specific, unique perception of home that has been built and is continually being built from their personal experiences. The key factors of home, however, were concentrated

in three sub-regional accumulations. This is because a region is forming one's insight and comprehension thus influencing his or her historical consciousness.

In Kuortane the main accumulation of belonging lies densely around Lake Kuortane. Those who live there do not usually have important homely places for events far from the lake. Further, all the main villages seem to constitute smaller loci within the orbit of the main accumulation.

The informants who live further away from Lake Kuortane seem to have a larger accumulation of home. They have key factors situated around the lake but also further from the lake. Again we can distinguish smaller loci, but they are not as clear as the loci within the main accumulation. The clearest example is the home accumulation of the Mäyry area with Lake Kuhajärvi in a significant role.

People's experiential conception of home does not follow any administrative lines (such as municipalities). It seems that the more important unit for regional identity is their experientially constructed idea of home (Heimat). It has the primacy from individual's point of view because it is the first regional identity one has. Little children have home in simple forms (home building, yard, parents, norms etc.) much earlier than they can have any idea about more abstract regional structures, such as municipality or fatherland.

Important places (i.e. specific points in space) matter when people experientially form their conceptions of home. Important events (specific points in time) matter, too. Events and places are not separated in memories. Home is a personal relation to both history and geography at the same time. In short, home as Heimat means the totality of the things among which an individual feels at home.

*Gateway R*

## **SOUTHERN BRAZIL: NOTES ON EXPORTS AND INTERNATIONAL PRESENCE OF LARGE INDUSTRIES**

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**Jorge Luiz de Lima, Universidade do Estado de Santa Catarina - UDESC, BRAZIL**

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Exports of manufactured goods ( manufactured and semi -manufactured ) of the southern states (comprising the states of Paraná - PR , Santa Catarina - SC and Rio Grande do Sul - RS) in all Brazilian exporter has grown significantly since the late 1970 when the first great impetus to national industrial exports. Since then, it appears that foreign sales showed significant increase with respect to the values and quantities exported, but interrupted in the period 1997-1999, when fall comes, resulting from neoliberal policies of the Cardoso government, such as the appreciation of the Real against the dollar. Moreover, the installation of factories, warehouses, offices etc. abroad, mainly in significant markets in Latin America, Europe, the United States and China to overcome internal difficulties of the 1990s to the current period, occurs. Therefore, this study, which is part of the research of Economic Geography (The large export industries in Southern Brazil in world space: analysis of logistics) developed from the Edital Universal 14/2012 - CNPq, aimed to a) systematize exports of the states of southern Brazil in the period 1990-2012 and b) raise, locate and characterize the installation of factories outside the southern fringes of large exporting industries (as classified BNDES). The theoretical support is based on the work of the Brazilian and world economic development Ignacio Rangel (Cheap Long and Medium Cycles) and the studies of Armen Mamigonian, discussing not peripheral economic dynamism in Southern Brazil. The methodological procedures included the survey, systematization and analysis of data and information available in printed documents and websites. The study showed an increase in the volume and diversity of products exported by the three southern states, except for certain periods, mainly shipped to United States, Europe and Asia. It was also found that the existing spatial organization: the distribution of the location of the ports ( Paranaguá - PR , Itapoá - SC , Sao Francisco do Sul - SC , Portonave - SC , Itajaí - SC , Imbituba - SC and Rio Grande - RS ), highways, railways , airports, industrial centers etc. , influences in favor of export dynamism in the Southern Region industrial exports happened so early national exporters impulses today and aggregate production in factories located abroad.

**MEASURING A TERRITORIAL LABOR MARKET DEVELOPMENT INDEX****Eduardo Rodriguez-Oreggia, EGAP Tecnológico de Monterrey, MEXICO****Diego Cardoza-Medeiros, EGAP Tecnológico de Monterrey, MEXICO**

The quality of labor is one of the main mechanisms through which individuals, and households, can not only improve their chances to leave poverty, or prevent themselves from falling into it, but can also make them achieve better consumption levels of basic goods. Thus, it is a central factor of well-being for households and individuals. Some of these issues have been widely reflected in the discussion of what the International Labour Organization (ILO) has called decent work, and this has sparked a series of studies all around the world that try to capture such a concept.

The ILO's (1999) definition of decent work comprises four dimensions: creating jobs; guaranteeing rights at work; extending social protection; and promoting social dialogue. Since it is important to progress the decent work agenda, measurement is needed to monitor weak areas where public policies can be strengthened. However, some concepts may be difficult to measure as they involve rights, representation, and similar variables where qualitative assessments are involved. Despite this, the ILO has already started different projects for country profiles, including some databases. Other academic institutions, like the Oxford Poverty & Human Development Initiative (OPHI) (2013), have identified quality of labor as one of the missing components of poverty, as it is related to the probability of leaving poverty and to giving people a sense of respect and of having a fulfilling life, and they call for more data and indicators that can be compared at the international level.

Other indexes have been constructed in order to measure some related aspects but not the same central focus. For example Osberg and Sharpe (2002, 2005) build an index of well-being for the US and OECD countries that includes wages, job security, wage inequality and the average of education, using a method similar to the Human Development Index (HDI). San, Hung and Huang (2006) use manufacturing data and build a quality of labor index by sector for Taiwan that includes workers' productivity, security, health, training, labor conflicts, and the type of labor model to account for 25 different components. These authors weight the components of the index using sectorial importance for aggregation. Schwerdt and Turunen (2007) decompose total productivity using labor surveys to predict wages and hours worked, for both men and women, and find education and experience to be the main changing forces of the observed labor quality. Aggarwal (2004) aggregates a labor quality index for the Indian states, decomposing manufacturing production and the share of labor, and finds wide differences among regions, but slow changes over time. Mostly, the development of those labor quality index involves the use of more specialized data and decomposition of factors that can be used to track over time how such factors can change and affect productivity levels, but that can make comparisons of regions and countries more difficult since data for all the components is not available for all areas.

Another stream of the literature also points to the importance of labor development as a mechanism for development. Ljungqvist (1993) departs from the contributions of both Arthur Lewis and Theodore Schultz, and considers the importance of human capital for development for a framework he builds to understand what happens in less-developed countries. This author suggests that a less-developed country is characterized by the following criteria: a high ratio of unskilled workers, a lower stock of physical capital, a smaller gross national product, higher rates of returns on education, and larger wage differentials between skilled and unskilled labor. A perpetuation of underdevelopment is related here to the inability to improve labor conditions and the quality of labor.

From a territorial point of view, the proposal of Ljungqvist can be adapted to identify and monitor those factors related to labor and development. Whether between nations or between states within a country, development can take place to the extent that productivity increases, and this issue is completely related to how the labor market can be improved or remains stagnated and underdeveloped. Unlike the previous set of indexes that decompose productivity, with more complex data and methods, the proposal here can be easily integrated in an index through specific factors, as the used data comes from employment surveys that are available for all countries to some extent, and using the geometric mean aggregation of factors.

The objective of this paper is to build a territorial measure of development of the labor market by adapting the frameworks of Ljunqvist (1993) and of Osberg and Sharpe (2005). In doing so, we will use labor surveys and a more flexible method for calculating and aggregating the components of the index, using geometric mean of dimension sub-indexes. The utility of this index arises from the fact that our proposal can be easily replicated in other countries or regions, since the availability of labor surveys has become common, and the set of variables is common in those surveys. In this paper we apply the method to Mexico, developing the index at the state level, and compare it along time.

*Gateway H*

## **THE 2014 WORLD CUP: PROMISES AND REALITIES OF URBAN DEVELOPMENT AND LEGACY**

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**Joan Noguera Tur, Universidad de Valencia, SPAIN**

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The sport, besides being a leisure activity, has become a social phenomenon with enormous capacity to mobilize, support and call. In parallel, it has gained increasing economic importance, such as its main competitions.

Mega sporting events are defined as proceedings that have a significant dimension, with a short duration, organized in a city, region or country. It attracts a large number of participants and spectators; it has an appeal for the media and expresses a broad economic investment in infrastructure, logistics and security services by the host city or country.

Mega sporting events can help to fund, accelerate and showcase urban development. These events have contributed to the realization of urban transformations, following the example of specialized sites, business plans and infrastructure modernization.

On the other hand, mega sporting events can trigger inefficient urban projects, because they are in the wrong place, since they have an inadequate size or simply for the reason they are unnecessary. Furthermore, these events can attract stakeholders with a short-term perspective.

The assessment of mega sporting events is a relatively new field of study. It has grown in importance in the late twentieth century, according to the impulse of modern sport as a true factor of economic production, leisure, tourism and the promotion of cities. Thus, considering the investments demanded by these competitions, due to the need to justify the costs incurred and taking account the necessity to present the specific results, the concept of legacy has been developed to investigate the impacts of mega sporting events. The nomination of Brazil to host the 2014 World Cup reflects its ambitions to assert itself as an emerging country. At the same time, the election of this country mirrors the economic interests of the so-called sport-business-media conglomerate, under the leadership of the Fédération Internationale de Football Association-FIFA. Besides the huge investments, the tournament has sued a remarkable task of governance among different spheres of the public sector as well as between public agencies the private companies.

Therefore, the overall objective of this study is to analyse the design, preparation and planning of that competition. The research examines whether that event is likely to be able to establish a legacy and a factor of local and urban development in the host cities. The study utilizes a qualitative approach, such as documentary analysis, to address the problems and contemplate the above mentioned objective.

The preliminary results indicate that the official budget for the 2014 World Cup reached R\$ 25.5 billion (Brazilian real), which is equivalent to US\$ 12.8 billion (United States dollars). The public sector has been a key player in the organization, planning and implementation of the competition. Among the tasks implemented by the federal and local agencies one can cite the disbursement of investment in infrastructure, financing and procurement of services and the governance of the competition. Certainly, FIFA will be one of the major beneficiaries of the event, along with the civil construction, leisure and tourism sectors.



The main urban legacies of the sporting mega event will be the stadiums, urban transportation systems as well as passenger terminals at the airports and ports. The event is being used by the host as a platform to finance and show urban development, boosting infrastructure and accelerating development plans. The above policies have created jobs and income for the hosts.

Meanwhile, the World Cup is not enough to solve the structural problems of the host cities without complementary development policies. Indeed, the hosts need to adopt a participatory strategic planning to use the legacy of the 2014 World Cup as a lever for a sustainable urban development.

#### *Gateway E*

### **EFFECT OF DEMOGRAPHIC SHOCKS BY FORCED DISPLACEMENT IN COLOMBIAN CRIME**

**Luis Eduardo Sandoval, Military University Nueva Granada, COLOMBIA**

This paper studies the link between forced displacement and delinquency in Colombian municipalities through information provided by CERAC 1 and module of forced displacement census 2005, that identify the social networks formed between expulsion and reception zones, which increase the size of population and municipalities receptors affect the local crime, showing a causal relationship between displacement and crime. Instrumental and spatial variables are used and considered displacement nearby municipalities, made towards allowing you to identify the impact of exogenous changes in the local population.

#### *Gateway O*

### **FINANCIAL SYSTEM RESILIENCE: THE CASE OF BRAZIL**

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The discussion about regional resilience have been having increasing attention in economic literature. Originally used in ecological and physical sciences, the concept of resilience has been used to understand how some regions are able both to resist and to recovery of an external shock. Using the concept of adaptive regional resilience developed by Martin (2012) and Simmie and Martin (2010), the paper tries to apply the use of this concept to other areas of regional interest: regional financial systems. The option of apply the concept of resilience to regional financial system is based on the understanding that financial systems are not spatially neutral but their behaviour are affected by the feature of the territory and they have an actively and intentional action that contributes to the understanding of the regional disparities shown inside countries.

Using the case of Brazil as an empirical evidence, the paper aims to use the concept of 'adaptive resilience' to understand how regional financial systems inside the country had managed to respond to financial shocks that has a huge impact in it after the end of the 80's. There is a huge literature that shows that financial system in Brazil has an important role in the explanation of its regional disparities (Crocco et al 2005, 2010). This literature sheds light on the perverse behaviour of financial system that don't facilitate financial intermediation on regions where it is most needed. Indeed, the supply of credit and other financial services are more available in those regions that are more developed. This behaviour is not only a consequence of regional features but also a strategic behaviour of financial system that contribute to the both the maintenance of the regional disparities but also its increase. This behaviour remains even after a series of events (shocks) that have implied in a strategic change of the financial system behaviour. One relevant example of this change of strategy is the end of the hyperinflation in the beginning of the 90's, which supposed to have forced the financial system to increase its supply of credit. However, this did not happen as others shocks. It is important to note that the concept of resilience used in the article is a negative one. During the period of the analysis,

shock after shock, the Brazilian financial system remained nonfunctional both in the sense of not providing the desired volume of credit as a whole and in its regional operations. Four major shocks can be pointed: the end of the hyper inflation in the 1994; the Asian crisis of 1998 and its impacts on Brazil, mainly the end of one to one exchange rate between USA dollars and Real (Brazilian currency); the opening of the Brazilian market for foreign banks; and financial crisis of 2008. All of these shocks had implications for the operations of financial system, specially in terms of the bank's strategy to search for profitability. Despite of that, the financial system remains not functional and regionally unbalanced.

#### *Gateway B*

### **INNOVATION AS A STRATEGY TO MAINTAIN TRADITIONAL ACTIVITIES: A COMPARATIVE STUDY ON THE FISHING INDUSTRY IN THE BRAZILIAN REGIONS OF PARA AND SANTA CATARINA AND GALICIA, SPAIN**

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In this article we discuss the importance of the innovation activities to promote traditional activities in low diverse economies. Historically, the fishing industry, for its locational characteristics, is an important activity to regional development. It is not only an important source of protein but also a job intensive activity, thus keeps an important socioeconomic role for certain regions around the globe. Here we compare three regions (Para, Santa Catarina and Galicia) in two countries (Brazil and Spain) where this very traditional activity had, through innovation, promote regional development. International trade had put pressure on natural resources and firms need to innovate to face limitations on fishery stocks. These limitations come as a challenge to those regions that had traditionally depend on this source of employment and wages and despite not being a breakthrough innovative activity cannot be ignored regarding local and regional development. Thus, we were interested in understand the innovation processes that under natural and human capital constraints, are being able to maintain the industrial activity so competitive. In order to analyse firm's behaviour towards innovation, and the strategies followed to overcome these difficulties we collected primary data through a closed questionnaire and conduct interviews in a sample of industries in these three regions. These interviews permitted to go deeper in our understanding of the absorption capacity of firms and its strategies to compete in the market. The challenges on the stocks scarcity, ecological unbalances and environmental problems due to industry residuals are similar. Due to fishing industry performance in these regions and its relevance for national economies authorities, firms and ourselves share a belief that if nothing would have been done a social problem may had occur, due to the local dependency on the activity. In order to differentiate the strategies involved, through factorial analysis we arrived to an hierarchy of firm's innovation performance. As expected results showed that Galician firms were first ranked followed by Santa Catarina and Para located firms. Together with the visits made we may say that these results are explained by the entrepreneurial innovative characteristics of the best firms. However, we observed that the institutional environment in Galicia is more integrated and innovation presents a longer path in the region.

#### *Gateway J*

### **STIMULATING AND RESTRICTING FACTORS OF ECONOMIC DEVELOPMENT IN SEPARATE REGION**

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Economic growth is caused by the same factors for both regional and macroeconomic levels, but conditions of maintaining these factors have their own peculiarities and therefore, can be taken into account by the policy of regional development. It means that methods of economic growth stimulation at the regional level should account regional inequality in the whole country because stimulation of growth of separate region does not

necessarily lead to reduction of regional disparities. If to take into consideration that the main factor of economic growth is the capital (investments), it evidently lead to intentional limitation of excessive saturation of one certain region by investment resources, because it can be unprofitable for the whole country in terms of maintaining parameters of stable and balanced development. This aspect of strategic regulation of disparities can be reflected during formation of investment toolbox of state regional policy. The logic scheme for stimulation of investments inflow can be presented as follows: maintenance of poor regions by resources, uniform allocation of resources in all regions, curbing of oversaturation by investment resources in some regions.

Instead of this, in Ukraine, the first task is to find out how to maintain the regions with low level of socio-economic rates by investment resources in order to approximate them to the levels of other regions.

The distinct factors which hinder the accumulation of resources in less-developed regions are the following: vicious circle of investment process in less-developed regions; the absence of investment proposition on the market; exclusion of huge amount of potential investment resources from the process of production. There is a need in large amount of resources for the intensification of manufacturing which could be accumulated only by securing the investors' expectation for huge economic profit. However, economic structure of less-developed regions and the absence of information support of investment process and weak promotion of investment potential do not facilitate the attraction of resources for business processes' activation in these regions. Also, local authority does not propagandize the investment resources and human and natural capital. Underdeveloped character of stock market, small number of credit organizations, not transparent and risky type of their activity, limited opportunities for mortgage lending, low portions of people' resources in investments deprive the economy of regions of ability to accumulate the essential part of investment resources.

In regions, the following risks of investment process appear: the absence of funds for high-quality structural changes in regional economy; outrunning development of some regions during the stagnation of others, the escalation of concentration of investment streams around the administrative centers of regions; orientation on foreign markets in regions with appropriate investment securing, further decline of competitiveness of import-substitutive production; creation of barriers for becoming of regions as competitive subjects for foreign investment activity; weakening of interregional production links.

In order to allocate investment resources more uniformly alternative measures should be applied. The first way – we can forcibly take portion of resources from the most developed regions by not permitting to register enterprises at the territory of these regions if the main companies are allocated in these regions but the basic production assets are located in others. The unity of legislative field lets us do this. Another way – we can forcibly take out the portion of received resources from high-developed regions and distribute it through other regions. The consequences will be the outgoing of business into shade, social discontent, distortion of tax potential, decrease of budget incomes. The third way – we can create the conditions for generation of investment potential in less-developed regions and for its full disclosure at two levels – at the central and local. For local authority in order to form the sufficient amount of investments is it necessary: to reduce the narrow specialization of enterprises in regions; to formulate clearly the resource demand of local enterprises and organizations in budget request in order to define the priority sphere of investment; to create information data base of investments projects of enterprises in region; to support investment projects and control for effective use of involved funds; to implement the unified methodological ground for working out, analyzing and control for investment projects in regions; to consolidate efforts between domestic and foreign contractors in full and profitable use of industrial, scientific, technical, innovative, resource capacities of region; to involve resource potential of municipal banks and insurance, retirement and investments companies, dividends and state share packages into investment process. And the central organ regulating regional policy should working out the main directions of investment policy in region for the involvement of credits, grants, international technical and humanitarian aid, foreign investments for promising projects, use resources in those economic sectors which can create the multiplicative effect for the development of related sectors in short period and others.

## **INNOVATION, URBAN ATTRIBUTES AND SCIENTIFIC STRUCTURE: A ZERO-INFLATED-POISSON MODEL FOR BIOTECHNOLOGY IN BRAZIL**

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The paper assesses the extent to which the environment is associated with the incidence of innovation. Patents filed are used as proxy for innovation and Brazilian municipalities are the spatial unit. Two dimensions related to the location are taken into account: the presence of science and technology infrastructure and urban attributes, identified here as economic scale, industrial scale, modernity and urban hierarchy. The object of analysis is the biotechnology sector, a segment of high technological complexity, which is expected to be more sensitive to the environmental variables. Results show the importance of the public sector on the technological output as the findings indicate the importance of investing in urban structure, especially in regions with a lower level of economic development. Factors such as specialized services sector, degree of centrality and industrialization level are critical for the upgrade of non-innovating municipalities to the innovation generating group. This means that incentive policies regarding science and technology can be more successful if they encompass investments in qualification and modernization of the cities and their urban infrastructures.

## **HIGH-GROWTH FIRMS AS OBJECTS OF DESIRE FOR REGIONAL POLICY. A MICRO-BASED LANDSCAPE OF AUSTRIAN FIRMS**

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**Michael Wagner-Pinter, Synthesis Vienna, AUSTRIA**

Regional policy in support of employment and cohesion in face of restricted budgetary means has to focus on firms with revealed ability of resilience and of successful behavior over stretches of recession. The paper produces a landscape of firms marked by quite diverse forms of behavior – both across sectors (as a approximation for certain market conditions) as well as sizes of firms (as an approximation of organizational structure) – which survived the up and downs of cycles and the challenges of recession. Based on the integration of two sets of data - micro data of Austrian firms and data on employment - the paper analyses different kinds of growth cycles (in relation to the number of jobs) of firms between 2002 and 2011. Six kinds of growth patterns are distinguished: permanent growth, permanent decline, accomplished turnaround, decline after peak, strong variability, weak variability over the whole period. Out of a landscape differentiated by 20 sectors and 4 different firm sizes fields with marked forms of growth behavior will be identified. Criteria such as skill intensity, rate of firm foundation and absolute amount of employment growth will be added to the analysis of each specific field. Applying these criteria (and their quantitative operationalisation through indices) those fields - and the number of firms and their additional number of jobs within these fields – will be identified which show a distinct positive growth behavior over the cycle and the recession. Finally some conclusions as to the relevance for policy support and firm promotion will be drawn.

## LOCALIZATION AND CONCENTRATION IN URBAN LABOUR MARKETS AND SUBMARKETS IN THE METROPOLITAN AREAS OF CENTRAL MEXICO

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The urban labour market is one of fundamental significance due to the possibilities and constraints that imposes on population's wellbeing, and because its effects on national and local employment rates and wages. At a micro scale, employment is the main source of income and of other dimensions of welfare. At a macro scale, the labour market becomes a thermometer of cities' economic performance. The urban dimension of the labour market is closely linked to the spatial proximity between residence and workplace, and therefore it depends on the urban structure. The localization of labour demand and supply and its proximity has been the source of multiple research. During the sixties the Spatial Mismatch Hypothesis (SMH), referring to the existence of a spatial gap between labour demand and supply within the cities, was formulated. The SMH means that workers and firms have different locations and, depending on the extent of the separation, it can have negative effects on the efficiency of the labour market and the city. Particularly, the mismatch increases transportation costs, reduces income, and reveals an unequal access to employment within cities.

The origin of this hypothesis lies in the observation of black people segregation in the inner cities of the United States as a consequence of jobs suburbanisation, which increased jobs inaccessibility based on the lack of public transportation, insufficient information about jobs of low qualification, high costs of residential mobility, and long distances for accessing a job at the suburbs. The hypothesis has been revived lately due to the interest on the rising tendency to polycentricism in big cities. Polycentricism has been considered as a path for the integration of large cities, which acts in favour of areas that are more distant from the Central Business District (CBD), improving accessibility to jobs.

This paper deals with the SMH due to the importance of measuring and understanding location patterns of workers and jobs, and their interactions. Research on the SMH is valuable to clarify the link between salary differences, unemployment rates and welfare; it is also useful for informing public policies that promote equity in cities. However, we centre our attention on the location, concentration and the spatial separation of labour demand and supply as a first step to approach the spatial mismatch problem in urban labour markets. First, we aim at identifying the spatial patterns of workers and jobs; we suggest different methods to measure the spatial mismatch; we investigate the differences between submarkets which are determined by the workers' level of education and the corresponding jobs according to their knowledge and technology level required; finally we contrast the results for metropolitan areas of different sizes.

The manuscript will present the results for the six biggest metropolitan areas in central Mexico: Pachuca, Queretaro, Mexico City, Puebla-Tlaxcala, Cuernavaca and Toluca. These represent almost 25% of Mexico's total population, include the largest metropolis in the national urban system and are part of the so-called Megalopolis of Mexico City. For Mexico, the SMH has been a source of different researches that have focused particularly in the case of Mexico City Metropolitan Zone (MCMZ) given its population size and economic significance (it concentrates 25% of national GDP and 23% of the jobs located in the country). There are some studies that analyse other cities such as Hermosillo, Zacatecas and Ciudad Juarez (Rodriguez, 2009; Fuentes, 2008 and Gonzalez, 2007). Overall, these works conclude that even though the number of sub-centres of employment is increasing, cities present important levels of mismatch situation that can be related to the accelerated urban expansions in the last years in nearly all of Mexican cities. These results suggest that not only in large areas such as Mexico City the spatial mismatch is a problem.

The methodology we use incorporates as the main tool the Exploratory Spatial Data Analysis (ESDA). Using LISAs and Moran indexes in their univariate version allows identifying the location patterns of employment and workers. The measurement of the spatial separation is developed as a combination of methods: on the one hand, it employs the "spatial mismatch index" developed by Raphael and Stoll (2002) as a particular form of Dissimilarity Index that links employment opportunities with groups of workers, and also a spatial version that was proposed by Wong (2003). On the other hand, the bivariate version of LISAs and Moran indexes show in which areas jobs and workers match.

We use data from the population and household census of 2010 and the economic census of 2009 carried out by the National Institute of Geography, Informatics and Statistics (INEGI) at the level of the basic geo-statistic areas (AGEBs) in the country. Submarkets are identified according to occupied population's education levels and the technology intensity of economic activities.

*Gateway J*

## **"REGIONALISM" OF REGIONAL AIRPORTS IN THE CONTEXT OF DOMINATION BY LOW COST CARRIERS AND GLOBAL RECESSION. THE CASE OF POLAND**

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Socio-political transformation towards the turn of eighties and nineties brought to inhabitants of Central and Eastern Europe – including Poland – the possibility of free travel beyond borders of their home countries. However, they were able to capitalize on that possibility only after liberalization and deregulation of air transport, which came with the accession to the European Union. Although mobility of Poles by air is still not on par with western European societies, the dynamics of changes in this area is among highest in Europe. A significant characteristics of aforementioned changes is that they are primarily induced by regional airports. As a consequence, the stake of Polish capital in total air traffic volume declined from 80 % to below 50 %, although the number of flights from Warsaw airport also increased. This shift therefore is rooted in a bigger dynamics of regional airports in relation to the central one.

The process of decentralizing Poland's airport system can be additionally boosted by problems experienced by the national carrier. LOT Polish Airlines, in a tradeoff for financial assistance from the government was forced to close down all non-domestic connections originating from regional airports. This niche will be probably quickly filled by – among others – Lufthansa, which is continuously strengthening its foothold in this part of Europe. Interest will also likely be shared by low cost carriers, as it proved to be the case in Hungary after the collapse of Malev. Success enjoyed thus far by Polish regional airports is mainly brought by popular destinations offered by low cost carriers. The backbone of destinations consists therefore of European cities whose air nodes include a secondary airport such as London Stansted, Milan Bergamo, Stockholm Skavsta, Brussels Charleroi or Frankfurt Hahn. An offer like that was a response to a huge wave of migration set into motion by Poland's entry into the European Union. Gravity of those connections outlived the first decade of Poland's membership in the EU. A question arises however of their longevity, and with it – perspectives for the Polish airport system in its current form. Causes for concern include:

- a) Persistence of global recession
- b) introduction into service of subsequent airports in the context of a still relatively low air mobility
- c) policies of low cost carriers

Recent years saw a dynamic growth of road infrastructure in Poland (construction of motorways and highways). In 2012 it became possible to travel from Berlin to Warsaw entirely by a motorway. Polish regions became connected with the European motorway system and as a consequence, accessibility landscape was reshaped. Presence of a motorway meant that the Berlin air node became significantly more accessible to western regions of Poland. Therefore the opening of Berlin Brandenburg Airport will have an effect on smaller, regional airports.

Most recent developments indicate a growing threat to profits of especially smaller regional airports. Low cost carriers dominating the offer of small airports are stepping up their demands for further reductions in airport charges, threatening with reduction of connections. Meeting those demands will drive airports into serious distress if they are unable to attract enough passenger traffic to reach profit. The problem is compounded by the fact that many of those airports (using a significant boost from EU funds) embarked on large scale investment in spacious terminals, riding on a wave of prosperity preceding the Credit Crunch. Those circumstances brought up once again the discussion on a need of new, entirely different approaches to the design of destinations network, a one less reliant on low cost carriers, or in some cases – even monopolized by one of them.

The aim of this study is to identify the level of match between the destinations network offered by Poland's regional airports and the diverse sources of demand. For each catchment area identified on the basis of existing airports' accessibility, a questionnaire survey aimed at inhabitants and entrepreneurs was conducted, in order to formulate answers to following questions:

- a) does the network of destinations reflect the geography of region's socio-economic gravity and if so, to what extent?
- b) To what extent the offer of Polish airports is market-pushed, and to which degree it is carrier-pulled?
- c) To what extent diverse deficits in the offer of regional airports result in migration of passengers from their catchment area?

*Gateway Ssa*

### **EXPLORING INTEGRATIVE MULTIDISCIPLINARY (IMD) RESEARCH IN 21ST CENTURY REGIONAL HISTORY: THE CASE OF THE BEKKERSDAL COMMUNITY IN THE WEST RAND MINING REGION OF SOUTH AFRICA, 1945-2013**

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In the regional history research under discussion – explored in a space of the eminent and historical West Wits Line gold mining region's rich history in the West Rand, South Africa – the newly developed Integrative Multidisciplinary (IMD) approach is challenged. The particular space is the tiny formal, as well as the mammoth-like informal settlements of Bekkersdal: A township existing since 1945 within the present day Westonaria municipal region, and currently challenging the local infrastructural initiatives to its limits. Settlement for people of colour in erstwhile Apartheid South Africa resulted in parts of the West Rand being formerly managed as part of the Greater Soweto.

Doing regional history studies in traditional times, and even more so in challenging complicated present day research contexts, require disciplinary inputs across borders to contest traditional ways of knowledge production in dealing with disciplinary, multidisciplinary, interdisciplinary or/and transdisciplinary research. It has always been proudly felt that regional history studies also embrace integrative multidisciplinary modes of knowledge production in investigating a broad spectrum of phenomena. However, possible integrative-progressive ways of doing so remained within the realms of "other" disciplines rather than regional history. By opposing this reality, and also adding value to knowledge production outcomes, an IMD project on Bekkersdal Township was imposed by a regional history studies expert as project leader. This study has as broad emphasis the determining of the ecohealth and wellbeing status of this controversially perceived poverty stricken, violent fit, cosmopolitan community.

What will be emphasised in this paper are i) A concise view on IMD research in Regional history studies ii) The current IMD research project in Bekkersdal as typical community in a post-mining context iii) Concisely outlining the value of being informed on the land and the service delivery history of Bekkersdal to progress towards doing IMD research on for example the area's ecohealth and wellbeing status, which could serve as a valuable map in understanding similar-like, other geographical spaces and places. From pooled, but integrative knowledge, should come forth proactive thinking and action to progress towards resilient and sustainable community environments.

## FROM NATIONAL TO LOCAL: IDENTIFYING SPATIAL INDUSTRIAL COMPLEXES IN MEXICO

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This paper aims to identify local industrial complexes of interrelated firms and establishments in Mexico by developing an exploratory spatial analysis of detailed municipal-level employment data. An important aspect of this research is the recognition that industrial clusters do not represent purely a national phenomenon, but rather differences arise according to interrelated industries in the local arena revealing thus geographic differences on regional employment.

Specifically, we show evidence that once national industrial clusters are identified through an Input-Output table, their regional distribution and spatial concentration can potentially be examined. In doing this, we overcome some of the limitations arising from standard location quotients or a-spatial methods which only considers only the industrial structure within a given areal unit but does not consider the characteristics of the surrounding area.

In a first step, national clusters of the 5 most significant value chains are identified: Electronic Components, Automotive, Chemical, Textile & Apparel, and Agricultural Products and Processed Foods. In a second step, local spatial statistics such as the Focal Location Quotient (FLQ) and the Getis-Ord  $G_i^*$  for local spatial autocorrelation, are used in order to explore and compare the extent to which regional value chains lead the formation of industrial complexes across the Mexican geography.

The evidence suggests spatial variability within Mexico's geography is linked to regional factors influencing geographic location, size and regional association of the industries under study. The North region concentrates a greater proportion of employment in almost three out of the 5 value chains here identified being the electronics manufacturing the greatest among all with 86.7 percent of the total employment in the value chain. The other two belong to automobile manufacturing and apparel industry with 60 and 42 percent, respectively. While the chemical industry complex exhibit a higher concentration in the capital region of almost 50 percent of the total employment, food processed value chain seems to be more evenly distributed across regions except for the southern region.

Hence, the research offers a suitable approach for regional industrial targeting particular sectors that can be supportive for rational decision-making in cluster development and policy.

## SUB-PROVINCIAL REGIONAL DEIPARITY IN CHINA

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China's regional disparities are characterised by horizontal (interregional), vertical (between upper and lower-levels of administration), and rural-urban disparities. The horizontal disparities are displayed at supra-provincial, provincial, and sub-provincial scales, while the vertical disparities exist between different levels of administration, namely township, county, prefecture, vice-provincial, and provincial-level territories, whereas rural-urban disparities are the differences between urban and rural areas. Regardless of how the disparities are categorised, they consist in the social, economic, cultural, and political lives. Privileged places or groups of people are taking every kind of advantages over other disadvantaged places and people.

The existing literature on China's regional disparity tends to concentrate on supra-provincial and provincial levels and between rural and urban. Little attempts have been made to analyse sub-provincial regional and vertical disparities. Given the multi-layers of governmental structure (national, provincial, prefectural, county, and commune in descending order) and the economic-centred development strategy in the post-reform period, the prioritised functional responsibility of every unit of governments is to make economic growth of the place under jurisdiction, which has led to governments competing for economic and fiscal resources not



only horizontally but also vertically. The tax sharing model of fiscal system allows the upper level governments receive much more tax revenue than lower ones but spend less. Nonetheless, because the political control, governments at upper levels can mandate responsibilities and tasks to the lower level ones. Under such institutional arrangement, lower level governments are taking more social and economic responsibilities with less fiscal resources. The initially poor counties have become even poorer because their fiscal revenues in absolute term are much less than the initially rich ones. They are struggling with the mandated provision of basic public spending, let alone investing in economic development. It is therefore argued that the inter-county disparity matters more than inter-provincial or inter-regional disparities.

This paper is the first attempt to explore the general features and trend of sub-provincial regional disparities. Due to funding limit, we can only deal with inter-prefectural disparities at this time. We find that while the inter-provincial and/or inter-regional disparities started to decline, inter-prefectural regional disparities are increasing over the last decade. This means the central government's effort in rebalancing regional development has failed to reach the people. Further studies need to be conducted to examine inter-county disparity which would draw the real picture of China's regional disparity and inequality because only the county level directly involves in general public's life.

*Gateway N*

## **ECO-CITIES IN CHINA: A NEW AGENDA OF PLANNING FOR SUSTAINABLE URBAN DEVELOPMENT**

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During the past three decades, China's fast economic growth and rapid urbanisation have resulted in unsustainable development in economic, social and environmental respects. Today, with increasing energy demand, climate change, labour cost and global financial crises, China's government has committed to develop a sustainable and low-carbon economy as a top policy priority. A "Green GDP" with balanced economic growth and environmental quality has been targeted as a new economy measure from central government to cities and regions in China. Chinese cities were used as the instrument for fostering economic growth during its rapid urbanization. Post-reform urban transition has created intense inter-city competition, which requires localities to act entrepreneurially to focus on economic growth through place promotion or city re-branding. Eco-innovation technologies have been widely applied in eco-city planning. Eco-city plans are booming in China now. This widespread enthusiasm for eco-cities development in China is examined with the transformation of urban and regional governance.

This paper systematically reviews the development of eco-cities in China and reveals the dynamics of eco-city development and planning practices under various low-carbon initiatives. This paper aims to explore the driving forces for eco-city development and the role of planning on sustainable urban development in China. It is argued that new eco-city planning may open another opportunity for creating an exemplar for sustainable urban development. It remains unclear what role of local government play in eco-city development. Whether 'eco-city' is an innovative label or an instrument for local government to pursue its urban development strategy? Will eco-cities in China, like Dongtan, remain only a dream as the future city of China? Will China's recent leapfrog in eco-innovation technologies turn China's urban development into a substantial reality? What are the challenges and discourse of China's sustainable development?

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