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## Editorial

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**Biographical notes:** Tommi Inkinen is a Professor of Economic Geography at the Department of Geosciences and Geography, University of Helsinki, Finland. His research interests focus on human and economic geography, including the regional structuring of innovation systems, technology implementation and information networks as well as electronic government and governance. He has also worked with the questions of logistics and transport, on which he has published extensively in national and international journals and books. He is a steering group member of the International Geographical Union's (IGU) Global Information Society Commission and the Editor-in-Chief of the peer-reviewed quarterly journal *Terra: A Geographical Journal*.

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This special issue of the *International Journal of Knowledge-based Development* is devoted to analyses of spatial and regional foundations underlying KBD in the international context. One of the main motivators for this special issue is its aim to integrate elements of spatial analysis into knowledge-based development theory. In spatial research, Graham and Marvin (1996) produced one of the first extensive accounts of city technology relations that embed key elements of the development of human interaction in urban contexts. Their approach stressed the importance of information and communication technologies in the spatial structuring and development of cities.

The articles of this theme issue provide insight into the spatial formations of KBD from various perspectives, including analyses of public and private sector collaborations with NGOs and other stakeholders. KBD emerges most commonly in urban contexts. Cities, their surroundings and the interaction between them both nationally and internationally comprise the foundation for urban and regional hierarchies. KBD is commonly associated with other academic concepts such as innovation systems (Asheim et al., 2011), creativity (Florida, 2002) and clusters (Porter, 1990). This involves recognition of the epistemological considerations of information and knowledge as well as theoretical complexities arising from interlinkages between space, industrial organisation, knowledge support systems and innovation creation. In empirical studies of spatial knowledge, sources for economic growth involve the recognition of cities as clusters of knowledge creation. Cluster life cycles, for example, have been a focus of recent research (Boschma and Fornahl, 2011).

Accounts of innovative (Simmie, 2001) and intelligent (Komninos, 2002) cities round the world indicate that Marshallian spatial agglomeration theory and Schumpeterian evolutionary economics provide another traditional background for theorising about spatial clusters and knowledge creation within locations. Knowledge creation in a spatial context is a mixture of the ability of business organisations to use and create innovative

solutions for their products in order to increase the resilience of targeted regions (Clark et al., 2010). The classic work of Nonaka and Takeuchi (1995) provides a theoretical foundation for considering the key elements of human interaction, creativity and the formalisation of sources of tacit knowledge. In addition, clusters are commonly supported by intermediating organisations (Inkinen and Suorsa, 2010), thus comprising an essential part of an innovation system.

A spatial understanding of KDB is fundamental due to cultural and behavioural locational differences. Organisations and their working cultures differ considerably from country to country. Industries matter because knowledge-creating clusters involve companies of different sizes, production modes and business logics. All of these issues integrate a knowledge economy into societal fabrics that always have specific national contexts. This special issue includes papers with clear and illustrative examples of the spatial dimensions involved in understanding regions and urban locations as sources of knowledge creation. Empirical variations in KBD studies are broadly evident in the articles. The methods involve qualitative tools such as focus interviews and textual data analysis, which are supported by quantitative indicators applied in statistical analyses. Policy implications represent a third highly important aspect of the present KBD studies.

One of the main challenges and potentials in spatial KDB is the direct link between research and practical applications in terms of the strategic planning of cities and regions. Theoretical literature has identified factors influencing the knowledge creation process, including elements of leadership, trust, collaboration and technology integration. These elements provide a background for the paper of den Heijer and Curvelo Magdaniel who start with the role of universities in KBD and the significance of various stakeholders and policy options. They emphasise the importance of the spatial integration of universities into the city fabric, there by recognising the modes of collaboration and interaction between stakeholders operating within a city space. They use the city of Bogotá to analyse the challenges and interlinkages between campus management and stakeholder organisations that stress the policy implications involved.

The urban connection continues in the paper of Alizadeh, who focuses on information workers and their life configurations. He pays particular attention to small towns and suburban locations, thus reviewing extensive debate surrounding the issue. He examines two cases from Australia and the USA in order to analyse qualitative interview data on the contemporary working life of skilled knowledge workers. Spatial concepts of suburbs, communities and neighbourhoods advance the spatial thematic of the theme issue towards larger spatial scales.

Thematically, the paper of Kolehmainen further addresses the organisational interaction and the networking of key-individuals by exploring the concept of the 'local innovation environment'. He focuses on a professional association as a forum for learning and knowledge creation processes. Using a case study from Tampere, Finland, Kolehmainen discusses the development path of the collaboration forum and its changing role over time as a platform for local knowledge creation. Interpersonal and organisational relationships as well as forged collaboration modes change temporally, thus creating the demand for change presently facing traditional forums (clubs). The article of Makkonen continues the context with Finnish case studies tackling with university-driven regional development. Makkonen conducts expert interviews with the most important stakeholder groups in the location of Joensuu in Eastern Finland. The study presents a thematic classification of stakeholder opinions and appreciations of university-industry relations and their impact on spin-offs.

This special issue tackles also with the regional level. Qualitative case studies provided in the other articles are supplemented by the quantitative analysis of Moon and Rho who present a statistical analysis from China that finalises this number of *IJKBD*. In particular, they address the knowledge spill-over of innovation activity. Drawing on contemporary regional innovation systems and knowledge-based development theories, they underscore the importance of location in spatial knowledge spill-over analysis. They also highlight the importance of entrepreneurial activity within regions in boost economic growth. Again their analysis represent the problematic involved in the direct research and development measures in overall regional development that are debatable.

The articles presented in this special issue showcase the diversity of global examples in KBD in terms of theory and empirics. The articles target the academic community as well as practitioners, such as spatial developers, planners and officers in order to increase their understanding of the dynamics and factors affecting KBD. In particular, the information regarding the challenges and obstacles that one should take into consideration in decision-making in cities of various sizes and peripheral locations.

I wish to thank all the contributors for their extensive work as well as a larger number of anonymous reviewers around the world whose contribution improved the quality of this special issue. I also wish to thank the editorial office of *IJKBD* for their smooth collaboration and the invitation to guest-edit this special issue. I trust that this issue will present new ideas and stimulate future research interest in the field of combining the spatial aspects of knowledge creation, societal technology integration and urban studies with the interests of economic geography and regional development. Additional comparative studies of KBD and innovative growth are needed to tackle this important topic and to further elaborate the complexity of KBD as a global phenomenon.

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