

**CALL FOR PAPERS**  
*Special Issue of International Journal of  
Innovation and Regional Development*

**Intra- and Cross-Regional Economic Development Dynamics:  
Focus on Regional / Sectoral Innovation Systems**

**Guest Editors**

*Editor -- Elias G. Carayannis,  
Professor of Science, Technology, Innovation and Entrepreneurship  
Department of Information Systems and Technology Management  
Director of Research,  
Science, Technology, Innovation and Entrepreneurship,  
European Union Research Center (EURC)  
Co-founder and Co-Director,  
Global and Entrepreneurial Finance Research Institute (GEFRI),  
School of Business, George Washington University, USA  
Email : [caraye@gwu.edu](mailto:caraye@gwu.edu)*

*Co-Editor – Aris Kaloudis  
Program Director, NIFU STEP  
Oslo, Norway*

*October 20, 2007*

Deep and broad economic integration in Europe and especially within the European Union has been taking place mostly on an intra- and cross-regional basis transcending national frontiers and identities and being driven by affinities, complementarities and synergies at the regional level.

The presence, role and impact of this phenomenon as a driver of regional economic development and especially in the form of small and medium enterprise formation and growth is the motivation for this IJIRD Special Issue. In particular, the focus of this special issue is on profiling, analyzing, benchmarking, and modeling in socio-technical terms, ways and means that creativity, invention and innovation are manifested and drive economic development in regions such as for instance, the Balkan and Baltic regions within the EU as well as other parts of the world. Our focus is on deriving insights from comparing and contrasting similarities and differences and critical success and failure factors within and across the regions under study.

Particular focus is meant to be placed on the role that knowledge-based *innovation networks*<sup>1</sup> and *knowledge clusters*<sup>2</sup> (see definitions below) in this regard play as catalysts and accelerators of new, sustainable and scalable technological venture formation and growth. In this context, innovation-triggering *technological entrepreneurship* is viewed as a core element of local, intra-regional and cross- innovation systems, as well as ‘*glocal*’ (global/local) knowledge production and innovation-triggering networks<sup>3</sup>.

In this context, we welcome papers dealing with heterogeneity<sup>4</sup> within regions (national differences within seemingly homogeneous regions such as the Nordic countries for example) and homogeneity between seemingly heterogeneous regions to drive policy learning and identify successful catching-up strategies between leaders and followers or between countries with similar economic and societal challenges.

Moreover, EU-US comparative issues are of interest here, at the regional level. For instance, there are few studies on innovation practices and policies at the state level within the US and this is something we would like to mitigate with this special issue. A well-designed comparative study between two US regions (or even between two US states) could be an important contribution to ongoing policy discussions and would be welcome for this issue. For example, how do the state-based (not federal) innovation policies in Virginia, Maryland and Florida (or Texas) differ and why?

---

<sup>1</sup> Carayannis, Elias G. and Jeffrey Alexander, Strategy, Structure and Performance Issues of Pre-competitive R&D Consortia: Insights and Lessons Learned, *IEEE Transactions of Engineering Management*, May 2004, vol. 52, no. 2

<sup>2</sup> Excerpts from ‘“Mode 3” Knowledge Creation, Diffusion and Use in Innovation Networks and Knowledge Clusters: A Comparative Systems Approach across the United States, Europe and Asia’, *Technology, Innovation and Knowledge Management (TIK-M) Series*, Elias G. Carayannis and David Campbell, Editors, Greenwood Press/Praeger Books, In Press, Due to appear August 2005

<sup>3</sup> Carayannis Elias and Max Zedwitz (2005). Elias G. Carayannis and Maximilian von Zedwitz, Architecting GloCal (Global-Local), Real-Virtual Incubator Networks (G-RVINs) as Catalysts and Accelerators of Entrepreneurship in Transitioning and Developing Economies: Lessons Learned and Best Practices from Current Development and Business Incubation Practice, *International Journal of Technovation*, v. 25, no. 2, February.

<sup>4</sup> *Diversity in The Knowledge Economy and Society: Heterogeneity, Innovation and Entrepreneurship* Edited by Elias G. Carayannis, Professor of Science, Technology, Innovation and Entrepreneurship, School of Business, George Washington University, US, Aris Kaloudis and Åge Mariussen, NIFU STEP Studies in Innovation Research and Education, Norway May 2008 c 384 pp Hardback 978 1 84720 211

Other issues of interest and relevance could be framed by questions such as:

- Do innovation policies differ with the economic structure of a region or they remain more or less the same between regions and if so why)?
- What does this say about the quality and the societal relevance of the innovation policy measures in the respective states or countries (within the regions)?

In this context, papers related to projects such as TrendChart, ERAWATCH and ETEPS would also be of interest and relevance.

The targeted audience for this Special Issue of the IJIRD includes policy makers as well as academic researchers and practitioners of technology innovation and entrepreneurship in the regions of focus as well as the EU and the world as a whole as the inter-regional and cross-regional integration, development and convergence phenomenon is replicated around the earth.

In this context, this issue will promote the identification and articulation of insights that could inform *both public sector policies and private sector practices* to render them more effective and efficient. A series of recommendations for policy makers and practitioners would ideally emerge from this comparative, conceptual and empirical research contributing to the growing literature on the role of knowledge on *technology, innovation and entrepreneurship* and in particular with regards to the role of knowledge creation, diffusion and use in *local, national, regional, and global* innovation networks and knowledge clusters that form the underpinnings of the knowledge economy and society.

**KEY WORKING CONCEPTS DEFINED<sup>5</sup>:** We provide here a set of working definitions developed in the context of this and prior related research projects that are meant to inform the author contributions:

- **“MODE 3”:** *“Mode 3” for Knowledge Creation, Diffusion and Use<sup>6</sup>: “Mode 3” is a multi-lateral, multi-nodal, multi-modal, and multi-level systems approach to the conceptualization, design, and implementation of Government-University-Industry Public-Private Research and Technology Development Co-opetitive Partnerships<sup>7 8</sup>).*
- **KNOWLEDGE CLUSTERS<sup>9</sup>:** *Knowledge Clusters are agglomerations of co-specialized, mutually complementary and reinforcing knowledge assets in the form of “knowledge stocks” and “knowledge flows” and management of real and virtual, “knowledge-stock” and “knowledge-flow”, modalities that catalyze, accelerate, and support the creation,*

---

<sup>5</sup> Excerpts from “‘Mode 3’ Knowledge Creation, Diffusion and Use in Innovation Networks and Knowledge Clusters: A Comparative Systems Approach across the United States, Europe and Asia’, Technology, Innovation and Knowledge Management (TIK-M) Series, Elias G. Carayannis and David Campbell, Editors, Greenwood Press/Praeger Books, December 2005.

<sup>6</sup> Carayannis et al (2006), Technological Learning for Entrepreneurial Development, International Journal of Technovation, 26, 419-443.

<sup>7</sup> Inter alia see: Carayannis, Elias G. and Jeffrey Alexander, Strategy, Structure and Performance Issues of Pre-competitive R&D Consortia: Insights and Lessons Learned, *IEEE Transactions of Engineering Management*, May 2004, vol. 52, no. 2

<sup>8</sup> Inter alia see: Carayannis, Elias and Jeffrey Alexander, Winning by Co-opeting in Strategic Government-University-Industry (GUI) Partnerships: The Power of Complex, Dynamic Knowledge Networks, *Journal of Technology Transfer*, vol. 24, no. 2/3, pp. 197-210, August 1999. *Note: Awarded 1999 Lang-Rosen Award for Best Paper by the Technology Transfer Society*

<sup>9</sup> Carayannis et al (2006), Technological Learning for Entrepreneurial Development, International Journal of Technovation, 26, 419-443.

*diffusion, sharing, absorption, and use of co-specialized knowledge assets. "Mode 3" is based on a system-theoretic perspective of socio-economic, political, technological, and cultural trends and conditions that shape the co-evolution of knowledge with the "knowledge-based and knowledge-driven, gloCal economy and society"*<sup>10</sup>.

- **INNOVATION NETWORKS<sup>11</sup>**: *Innovation Networks<sup>12</sup> are real and virtual infra-structures and infra-technologies that serve to nurture creativity, trigger invention and catalyze innovation in a public and/or private domain context (for instance, Governm that exhibit self-organizing, learning-driven, dynamically adaptive competences and trends in the context of an open systems perspective.*

This IJIRD special issue will aim to attract a number of conceptual and empirical studies focusing on regions including US and EU regions - such as the Balkan and Baltic regions - as well as on a cross-regional comparative basis and leading to a better understanding of the role of specialized knowledge stocks and flows in triggering and catalyzing economic development driven by technological entrepreneurship. These studies will help illustrate and clarify intra- and cross-regional *socio-technical, knowledge-based innovation networks and knowledge clusters architecture design, form and function.*

The intent is to encompass and integrate diverse theoretical perspectives, including, regional development economics and sociology of innovation, as well as regional science, and, technology, innovation and knowledge management research as follows:

- Select industries of focus would be biotechnology, advanced materials and ICT (as well as cross-disciplinary, emerging threads such as nano/bio-technology, MEMS, bio-informatics, etc) and in each region and/or country therein, innovation networks and knowledge clusters based on such industries would be identified and studied.
- This is not to exclude low and medium technology sectors and regional innovation networks. For instance, innovation practices, clusters and networks in areas and sectors such as, construction, services, maritime and marine technologies, cleaner forms of energy production, eco-innovation, etc.
- Public-private partnerships for research and technology development, transfer, deployment and commercialization would also be studied in this context, and, in particular, their relationships and roles in catalyzing and accelerating the formation and growth of networks, clusters and individual new ventures.
- Top-down policies and bottom-up initiatives would be documented and reviewed to identify what works and what does not, how and why in each region, country and industry.

***Papers submitted to this special issue will be reviewed in accordance with the IJIRD's editorial policy and should be emailed in MS Word format to:***

- **Professor Elias G. Carayannis at [caraye@gwu.edu](mailto:caraye@gwu.edu)**

**DEADLINE FOR SUBMISSIONS: May 31, 2008**

---

10 Carayannis Elias and Max Zedwitz (2005). Elias G. Carayannis and Maximilian von Zedtwitz, Architecting GloCal (Global-Local), Real-Virtual Incubator Networks (G-RVINS) as Catalysts and Accelerators of Entrepreneurship in Transitioning and Developing Economies: Lessons Learned and Best Practices from Current Development and Business Incubation Practice, *International Journal of Technovation*, v. 25, no. 2, February.

<sup>11</sup> Carayannis et al (2006), Technological Learning for Entrepreneurial Development, *International Journal of Technovation*, 26, 419-443.

<sup>12</sup> Networking is important for understanding the dynamics of advanced and knowledge-based societies.

Networking links together different modes of knowledge production and knowledge use, and also connects (sub-nationally, nationally, trans-nationally) different sectors or systems of society. Systems theory, as presented here, is flexible enough for integrating and reconciling systems and networks, thus creating conceptual synergies.