A Special Issue on

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SYSTEMIC COMPROMISE
AND ITS APPLICATIONS
TO THE KNOWLEDGE AND INNOVATION ECONOMY
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July 31, 2014

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Concept

The modern theoretical studies of rational behavior of economic agents in complex socio-economic systems (SES), including game-theoretic approaches, assume that the agents’ decision-making is normally limited to just selecting an action from a set of alternatives which is known a priori. That means that the actual rules of behavior are already established.

However, in many real systems, there are participants who are empowered not just to select an action, but also to develop the rules (and perhaps principles) of interaction and coordinate this decisions with other agents. Since such decisions are important and may be critical for the system, these participants have some responsibility for the results of the functioning of the
system or its parts. Examples are hierarchical systems, systems with distributed control and many decision-making centers, franchising, financial and commodity markets, etc.

Inconsistencies of participants’ interests, incomplete, imperfect and asymmetrical information in SES, typical for such systems, impede effective coordination of decision-making in SES. So, the coordination of decision-making in complex systems requires a purposeful change of the level and quality of information and knowledge available for the SES agents.

The distribution and exchange of rights, powers, responsibilities, priorities, information, and decision rules constitute some system structure of interaction and decision-making in a SES. A problem of systemic compromise is defining, designing and constructing such a structure of interaction and decision-making in a SES which are acceptable (satisfying enough) in some sense for the SES participants. Solving such a problem may require considerable efforts and resources from the participants. Additionally, uncertainty and unpredictability are to be considered systemic determinants of rational behavior of the participants.

A conception and methodology of systemic compromise can be applied to studies and analysis of different aspects of the knowledge and innovation economy which based on the processes of production, diffusion, distribution and consumption of information, knowledge, ideas and innovation. The systemic compromise methodology can help to best foster a more effective, efficient, and transformative dialogue among key stakeholders in the innovation and entrepreneurship ecosystem (government, universities, industry, and civil society) (see Carayannis and Campbell (2009, 2010), on the Quadruple Innovation Helix concept\(^1\)) on a cross-disciplinary basis. These stakeholders have different interests, as a rule. So, we need some kind of systemic compromise in the incentives, strategies, and behaviors of both innovators and policymakers. The application of systemic compromise can help to best identify “win-win-win” overarching goals and opportunities for all key public- and private-sector stakeholders (government, universities, industry, and civil society) of the innovation and entrepreneurship ecosystem.

Basic concepts of systemic compromise are developed and presented in two monographs by Gennady I. Algazin (1999, 2009)\(^2\) and a number of other publications. However, despite the obvious methodological power of this approach and a wide range of potential applications, the current results of modeling and studies of systemic compromise seem rather modest and narrow today, and they recently have just little respect to important issues of the knowledge and innovation economy.

Search for systemic compromise in the modern economy of knowledge and innovation is a multifaceted, multidimensional and multidisciplinary problem. We invite scholars and

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researchers from the fields of economics, government and business administration, knowledge and innovation management, mathematical modeling and optimization, computer simulation and other relevant disciplines to submit original research papers or review articles on the topics of this Special Issue.

**Content**

This Special Issue invites scholarly articles of a both theoretical and empirical nature, from researchers and practitioners. The Special Issue topics can be identified by, but are not limited to, the following themes and subjects:

- Theoretical aspects of the concept and models of systemic compromise
- Applied models and methods of systemic compromise
- Principles of systemic compromise, and related problems
- Institutional mechanisms of the systemic compromise
- Systemic compromise in the study and analysis of the knowledge economy
- Systemic compromise in the innovation economy
- Systemic compromise, Game Theory and optimization methods: theory and applications

The Special Issue encourages submissions which deal with the above themes, but are not limited to the above list.

The papers can be based on mathematical and formal approaches, but should not be “purely” mathematical and should be also understandable for non-mathematicians.

**Submission details**

Please contact the Guest Editor (igor_dubina@yahoo.com) with your paper proposal (350-500 words) by **December 31, 2014**. Please also cc the JKEC Editor-in-Chief (caraye@gwu.edu) at all times.

Selected papers’ authors will be informed by **January 31, 2015**.

Full papers should be developed by **May 31, 2015**.

Using appropriate theories and research methods, all submissions to the journal are made online at:

- [https://www.editorialmanager.com/jkec/](https://www.editorialmanager.com/jkec/)

Submissions should follow the Springer Journal of the Knowledge Economy guidelines at:


**All papers will be blind reviewed following JKEC’s normal review process and criteria.**

For further information please contact the Guest Editor or JKEC Editor-in-Chief.