

Call for Papers for Special
Sessions on

"Ex-ante policy evaluation of sectoral and regional
innovation systems"

to take place during

The IV International Workshop on Computational
Economics and Econometrics
June 30 – July 1, 2016,
Rome, Italy

For further information, please visit:
<http://www.ircres.cnr.it/index.php/it/iwcee16>

Technological innovation is recognized as the prime driver of economic growth. Not surprisingly, policy makers seek to shape innovation systems for the benefit of industries with high growth potential. However, innovation activities are characterized by inherent technological and market uncertainty, dynamic inefficiencies, suboptimal allocations, and market failures. This special session brings together research on the application of agent-based models (ABMs) for ex-ante innovation policy evaluation.

ABMs account for potential non-linearities in a system and they are well-suited to model systems in which agents possess multiple different properties and behaviors and are capable of purposeful decision making and learning. Based on these features, endogenously emerging phenomena can be modelled and explained. Current research focuses on questions such as the calibration of models with empirical data, the validation of models, predictive power of simulation models and simulation results.

With agent-based modeling, innovation researchers can support policy makers in several ways. Most notably, the ABM approach (i.) allows us to gain a better understanding of the

relevant processes within innovation systems, (ii.) overcome the simplifications of more traditional research and modelling approaches, and (iii.) enable researchers and policymakers to ex-ante evaluate R&I policies. Thus, ABM can help to reduce uncertainties of decision making, repair market failures, improve timing of policy implementation and technological focus decisions, and increase efficiencies by innovation and production system design.

Modelling innovation systems *in silico* offers unprecedented possibilities for *ex-ante policy evaluation* and *experimentation*. Computational models allow for monitoring agent behavior and decision making, while policy makers may experimentally influence the agents by alternating e.g. the system environment, incentives and decision making rules. As such, policy makers are able to evaluate the effects of alternative instruments and system interventions.

Despite all these interesting features we are still at the very beginning when it comes to the application of ABMs for ex-ante policy evaluation. We cordially invite work including but not limited to:

- (i) Description and application of innovation system ABMs,
- (ii) Methodological discussion of empirical calibration of innovation system ABMs
- (iii) ABMs designed for ex-ante policy evaluation
- (iv) Methodological and technical considerations in ABM design (e.g. model design, software platform)

Important dates:

Extended abstract: May 27, 2016

Notification to authors: May 31, 2016

Paper (or presentation): June 20, 2016

Workshop: June 30 – July 1, 2016

Correspondence:

For any inquiry, please do not hesitate to contact one of the organizers of the special session:

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Mueller, Matthias, University of Hohenheim

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Submission:

Please submit your paper to the following e-mail address: muhammed.kudic@stifterverband.de

Best papers presented at the workshop will be published in a Special Issue of The International Journal of Computational Economics and Econometrics (IJCEE).