

TRACK 1: The Context, Content and Future of STI-Policy: Towards a New Framing?

Session Proposers:

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Description:

The world is in transition. Many interlocking environmental, technological, economic, political and cultural trends such as resource depletion, population growth, industrialization, urbanization, inequality or individualization are creating collective challenges (United Nations, 2015) that exceed the ability of any single country, body of governance or scientific discipline to manage them. Our innovation engine is faltering with the fruits of creative destruction increasingly morphing into destructive creation (Soete, 2013). It is amply clear that traditional Science, Technology and Innovation (STI) policy has not delivered on these challenges nor are there good reasons to expect that it would do so in the future. Socio-technical systems need to be significantly reconfigured and STI policies re-invented to rise to the grand challenges. What is needed is not just the improvement of existing STI policy but adding a whole new set of rationales and instruments which would amount to a truly transformative innovation policy.

This diagnosis and respective solutions have recently begun to be articulated under many different labels, for example, Responsible Research and Innovation (Stilgoe et al., 2013), inclusive innovation (Agola and Hunter, 2016), social innovation (Joly, 2016) or the governance of sustainability transitions (Grin et al., 2010). While differing in many aspects the basic themes of these approaches seem to be recurrent: attention to alternative futures and the co-production of science, technology and society, emphasis on the non-neutral nature of technology, focus on disruptive socio-technical systems change in addressing societal and environmental challenges, stress on the transformative potential of civil society and attentiveness to the needs and wants of users and non-users alike. This has led to a suggestion that we might be witnessing the emergence of a new framing of STI policy (Weber and Rohracher, 2012; Schot and Steinmueller, 2016), one markedly different from traditional approaches to STI policy-making that have focused on boosting R&D, promoting entrepreneurship or building innovation systems. The research session is therefore devoted to the exploration the context, content and future of transformative innovation policies.

More specifically, the papers in the session are called to reflect on the following questions:

- What are the implications of changing societal and global context for STI policy? How might broader social and environmental changes facilitate or hinder the potential renewal of STI policy towards transformative change?
- How has STI policy reacted to these changes until now and how are STI policies likely to react/adapt in the future? Which transformative policies and governance arrangements would be useful for addressing the world in transition?

We are interested in theoretical as well as empirical papers: however, all papers should contribute to the debate on how STI policy for transformative change could be articulated and evaluated. The possible topics include (but are not limited to) the following:

- The possible impact of major long-term landscape changes (e.g. the crisis of neoliberalism, the increasing financialization of world economy) or short-term shocks (e.g. financial crisis, Brexit) on STI policy, including its transformative potential
- Innovative approaches that do not only aim to reduce inputs or overall consumption but try to reconfigure the relations between consumers, investors and/or markets (e.g. Freecycle, benefit corporations)
- Stimulating and managing conflict in implementing policies directed towards the achievement of disruptive socio-technical systems change
- Ways of challenging environmentally harmful industrial sectors and socio-technical systems while addressing the possibly accompanying adverse impacts on local economies (e.g. unemployment, decreased energy security, skill mismatch etc.)
- Building multi-level policy mixes (supporting niches, destabilizing regimes, tilting the international playing field), balancing new policy mixes with existing policies
- The challenges and possible futures of STI policy in the context of permanent slow-growth economy or the slowdown in technological progress (Gordon, 2016)?

Empirical research can include individual in-depth case studies, comparative case studies or broader survey-based approaches. We are looking for research at the international, national, regional and local level, and contributions from outside Europe too. The expected outcome of the sessions within this theme is a better articulated overview and analysis of the current situation as outlined above and suggestions for STI policies of the future.

References:

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Weber, K.M., and Rohracher, H. 2012. Legitimizing research, technology and innovation policies for transformative change: Combining insights from innovation systems and multi-level perspective in a comprehensive 'failures' framework. *Research Policy* 41(6): 1037-1047.