UNIVERSITY OF TWENTE.

IGS INSTITUTE FOR INNOVATION AND GOVERNANCE STUDIES

Eu-SPRI Forum
European Forum for 'Studies into Policies for Research and Innovation'

International Conference

TENTATIVE GOVERNANCE IN EMERGING SCIENCE AND TECHNOLOGY

ACTOR CONSTELLATIONS, INSTITUTIONAL ARRANGEMENTS & STRATEGIES

October 28-29, 2010, University of Twente, The Netherlands

Theme

For emerging science and technology (EST) governance becomes tentative when it is designed as a *dynamic* process to manage interdependencies and contingencies. Tentative governance aims at creating spaces of openness, probing and learning instead of trying to limit options for actors, institutions and processes. It answers political and organizational complexities with explorative strategies, instead of relying only on orthodox or preservative means.

Tentative governance is a particularly pertinent issue for EST such as nanotechnology, life sciences, genomics and other emerging fields of innovations with the potential to radically transform domains and sectors,. These fields are subject to a broad array of inherent uncertainties related to technological shape, configurations and applications and the resulting societal benefits and risks. At the same time, actor constellations and practices related to knowledge production, innovation and societal appropriation are in the process of emerging and largely differ from established technologies. This poses specific challenges to the governance of these fields, which has to address ill-defined and sometimes 'moving targets'. Simultaneously, promises and expectations abound. Many actors from government, academia, industry, and civil society expect that EST will constitute "key technologies of the future" and that some may even lead to a "next industrial revolution". Thus, developing appropriate governance modes seems all the more important. However, modes of governance are usually attuned to established technologies. Innovative modes of governance under headings such as 'reflexive governance', 'transition management', 'Constructive Technology Assessment', 'Ethical, Legal and Societal Issues (ELSI) Studies', or 'Real-Time Technology Assessment' are only now emerging. What we are seeing, in other words, is a co-evolutionary growth of innovative modes of governance and constellations, practices and technologies in EST. Hence, it can be argued that governance modes, be they regulatory approaches, institutional arrangements or modes of coordination among various actor constellations turn out – and probably even need – to be tentative in order to respond to the uncertainties and to be prepared for further dynamics. We assume that tentative governance is neither a particularly desirable or worrisome approach, but rather an empirical phenomenon.

The aim of the conference is to identify and elaborate the specific governance challenges of EST and to discuss ways of responding to them. Papers may address these issues conceptually or empirically for EST in general or for a specific innovation. We invite interdisciplinary contributions from policy and regulatory governance studies, legal studies, higher education studies, science and technology studies, technology assessment and innovation studies.

The International Programme Committee includes: Prof. Arie Rip, Prof. Stefan Kuhlmann, Dr. Bärbel Dorbeck-Jung, Prof. Jürgen Enders (University of Twente), Prof. Philippe Larédo (ENPC Paris, Manchester University); Prof. Susan Cozzens (Georgia Institute of Technology), Prof. Charles Edquist (Lund University) and Prof. Susana Borrás (Copenhagen Business School).

The Programme Committee is calling for proposals for papers, sessions or posters presenting research on the Governance of EST. The following gives a non-exhaustive list of topics the papers may address:

- *Governance of Innovation Networks and Systems*: Which constellations of innovation "enactors" and "selectors" in industry, public research organizations, policy, NGOs, users, consumer organizations and intermediary organizations are emerging; what are their particularities; how do they interact and which institutional arrangements are structuring these interactions? What is the role of public policies in this process? How do new socio-technical spaces and platforms for organized interaction between actors who, until now, have belonged to largely separate fields, open up and evolve? How do rules, institutional arrangements and informal prerequisites of coordination such as trust emerge?

- *Governance of Science and Research Organizations*: What is the interrelation between external and internal governance practices and research practices in public research organisations? What are appropriate governance models for cooperative knowledge production among universities, research institutes and industry? What are the specific governance challenges of emerging fields of research in science and technology, the humanities and social sciences?

- *Regulatory Governance*: Which regulatory problems does the governance of emerging technologies have to face? Which innovative governance approaches and methods are emerging to cope with these problems? What are the specific problems of legitimacy and effectiveness of certain governance arrangements? What can be learned from successes and failures in the regulation of other technologies?

- *Governance of Promises and Risks*: How can promising applications be explored and supported while taking risk concerns into account? How to assess promises and visions and how to identify and respond to hype? What are the generating processes, structures and institutions of expectation-building and how do they relate to the societal perception and dynamics of promises and risks? In the face of uncertain benefits and risks, what are the possibilities to avoid premature lock-ins and maintain reversibility while at the same time attaining a sufficient degree of stability?

- *Governance Approaches to Emerging Science and Technology in long-term perspective*: How have governance approaches and the emergence of new scientific and technology fields interacted in the past? How have governance approaches changed over time? To what extent are EST we observe today either similar or fundamentally different from former emerging science and technology fields?

- *Methods, Measures, and Data for the Analysis of Governance Issues*: How are existing methods being applied in new ways, including visualizing science and innovation dynamics? What analytic techniques and models are emerging, both quantitative and qualitative?

- *Reflection on Concepts:* Finally, we also encourage contributions reflecting on the underlying concepts and appropriate methods for investigating emerging science & technologies, such as the concepts of 'emergence', 'innovation', and 'governance'.

Submission Guidelines and Additional Information

The Conference will extend over two days, with plenary and parallel sessions. The conference will convene internationally leading experts and scholars studying issues of the governance of EST. At the same time, early career researchers are welcome as well.

We invite proposals for presentations of papers, sessions or posters. Poster sessions are particularly targeted at PhD students, but PhD students may submit proposals for papers as well. Please indicate which of the above mentioned topics your paper addresses.

- The deadline for submission of proposals for papers, sessions or posters is March 16, 2010.
- Decisions on acceptance will be made by mid May, 2010, based on advice from the international programme committee (see above).
- Please submit all paper, session and poster proposals at http://www.igs.utwente.nl/international_conference_tenta/.
- Paper proposals should include an abstract of max. 400 words, describing the research question, methods, and preliminary results.
- Session proposals should include a max. 250 words description of the session and an abstract for each paper.
- Extended Abstracts for papers and posters can be submitted until September 30, 2010. These will be circulated at the Conference in the form of a booklet.
- Papers will be considered for post-conference edited volumes and special issues.

Organizers

The conference is organized by the **Institute of Innovation and Governance Studies (IGS)** in collaboration with the MESA+ Institute for Nanotechnology of the University of Twente. Internationally, the conference will be run as a key event of the European Forum for 'Studies into Policies for Research and Innovation' (**Eu-SPRI Forum**; succeeding the PRIME Network of Excellence; http://www.euspri-forum.eu/).

The **Conference Organization Board** includes Prof. Stefan Kuhlmann, Dr. Kornelia Konrad, Dr. Roel Nahuis; Dr. Peter Stegmaier (STəPS Twente); Prof. Jürgen Enders (CHEPS); Dr. Bärbel Dorbeck-Jung (LEGS); Sjoerd van Tongeren (IGS).

Conference Secretariat: Marcia Clifford (IGS); m.f.clifford@utwente.nl.

Conference Website: http://www.igs.utwente.nl/international_conference_tenta/

IGS: http://www.universiteittwente.nl/research/igs