



European Forum for  
Studies of Policies  
for Research and Innovation



## 2012 Eu-SPRI Conference

Towards  
Transformative  
Governance?  
Responses to mission-  
oriented innovation policy  
paradigms

12-13 June 2012  
Karlsruhe

Organized by

 **Fraunhofer**  
ISI



## Welcome message from Marion Weissenberger-Eibl, Director of Fraunhofer ISI



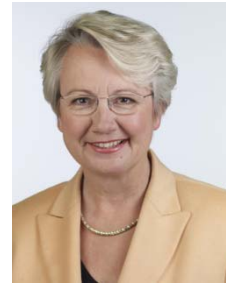
In 2012 Fraunhofer ISI is celebrating its 40th anniversary. Fraunhofer ISI is an applied research institute dedicated to the promotion of social and technological innovation which we see as the most important factor in economic growth and prosperity in Germany and worldwide. Innovation is a highly complex process, determined by scientific and engineering know-how, market development, policy and social change. Therefore, Fraunhofer ISI is at the centre of interdisciplinary applied social and technical research. Fraunhofer ISI has made major contributions to the development of innovation theory including the heuristics of (national) innovation systems, the analysis of sectoral systems of innovation, modeling of innovation processes in energy, transport and patent analysis. It is a leader in developing visions of the future and scenarios as part of policy processes for innovation and sustainability. It provides policy advice to the German government and federal states, to the EU Commission and parliament and is involved in policy discussions worldwide in areas such as lead market analysis, new technological trajectories and climate policy. It has a close relationship with industry in the management of innovation and facilitating strategic decision making.

As part of our celebrations, Fraunhofer ISI is pleased to be able to organise the 2012 Eu-SPRI conference. Our theme is "Towards Transformative Governance? Responses to mission-oriented policy paradigms". The Lund Declaration states that "European research must focus on the Grand Challenges of our time moving beyond current rigid thematic approaches". This has reinforced a development in the past few years in which governments and the European Union have adopted a new strategic rhetoric for their research and innovation policy priorities which addresses the major societal challenges of our time. This is evolving into the third major policy rationale besides economic growth and competitiveness. It is not yet clear whether and how any transformative effects from this new mission-oriented approach can be identified. This conference will bring together leading and up-and-coming researchers across a range of social science disciplines and provide an open forum to promote the emerging academic discussion about new developments in research and innovation policy and their effects on knowledge production, innovation and grand challenges at different levels.

We are delighted that Annette Schavan, Federal Minister of Education and Research and Winfried Kretschmann, Minister President of Baden-Württemberg, act as patrons of the event.

We welcome all participants to Karlsruhe and wish you an informative and enjoyable conference.

## Welcome message from Annette Schavan Federal Minister of Education and Research



Germany is one of the world's leading countries when it comes to innovation. Expenditure on research and development rose to an all-time high of almost 70 billion euros in 2010. In an international comparison, the investments in research and development in Germany are matched by high returns. In view of the high complexity of global challenges and changes, innovative solutions and scientific breakthroughs are needed more than ever before. Climate change, demographic trends, the spread of endemic diseases, the need to safeguard global food supplies and the finite nature of fossil raw materials and energy sources: All of these transformations which are taking place at the same time require comprehensive initiatives geared towards systemic solutions.

The German government has been bundling numerous research and innovation activities in its High-Tech Strategy since 2006. Its objective: To turn knowledge and ideas in Germany into innovative products as quickly as possible. The further development and implementation of the High-Tech Strategy is oriented on the benefits of technological progress for mankind. It focuses on forward-looking projects in the areas of climate and energy, health and nutrition, mobility, security and communication.

The Fraunhofer Institute for Systems and Innovation Research ISI has been an independent thinker and a trailblazer for new ideas, technologies and services for 40 years. It makes an important contribution to strengthening Germany as a location for innovation and research with its outstanding scientific expertise and systemic research approach. The European Forum for Studies of Policies for Research and Innovation (Eu-SPRI), of which Fraunhofer ISI is one of its members, represents a good opportunity to conduct an intensive dialog about the priority topics of the future and to promote the exchange of information and ideas among science, industry and policymakers. I hope the participants at the Eu-SPRI conference enjoy interesting meetings and discussions in Karlsruhe which may spark valuable impulses and pointers for the innovation system. I also wish the Fraunhofer ISI continued success in its work.

## Welcome message from Winfried Kretschmann Minister President of Baden-Württemberg



Baden-Württemberg has recognized the signs of the times: historical challenges like climate change, the decline of fossil fuels and natural resources, as well as the nuclear power phase-out in Germany call for re-thinking in politics, the economy and society. Our current standard of living must not be at the expense of nature. Instead we must put sustainability into practice in our actions and business activities and thereby, sustain what sustains us. The objective of the government of Baden-Württemberg is therefore to combine ecology and economics.

As a major automobile and research state in Germany, Baden-Württemberg attaches particular significance to the further development of sustainable mobility concepts. We must succeed in making road traffic as climate-friendly and resource-saving as possible in order to achieve the goal of emission-free driving. We want to turn Baden-Württemberg into a showcase and a region which pioneers intelligent and sustainable mobility.

A key element is the expansion of electric mobility: in close cooperation with science and industry, we want to exploit synergies, expand our existing strengths optimally and increase our expenditures on research and development (R&D) in order to make electric mobility more visible and above all, also more "tangible" – that is, suitable for everyday use. The government of Baden-Württemberg intends to pursue this course by investing 50 million euro in the next four years in the "Landesinitiative Elektromobilität II" to build the necessary infrastructure, implement measures promoting research and technology transfer as well as in procuring electric vehicles. In order to ensure that the electricity required for re-charging is generated by renewable energy sources, the state government is simultaneously working on expanding electricity generation from renewable sources, such as wind power. However, we must not stop here, but must simultaneously promote hybrid technology and an alternative transportation concept. Road, rail, public transport, cycling and car-sharing offers must be better networked and controlled. New, environmentally-friendly mobility solutions and technologies are real export hits. Last but not least, our industry and science will also profit from our pioneering role in this field.

My sincere thanks are therefore due to the Fraunhofer Institute for Systems and Innovation Research (ISI) for organizing and conducting the Eu-SPRI conference in Karlsruhe. With this conference, they are contributing towards finding solutions for the most urgent problems of our society, which certainly include the realization of sustainable mobility concepts. Hence, I am very happy to act as patron for this conference. I wish the event every success and all the participants stimulating discussions and new insights.



# Overview

## Monday, 11 June 2012

- 19.30 General assembly & dinner for invited representatives of Eu-SPRI Forum member organizations  
*Hotel Novotel Karlsruhe City*

## Tuesday, 12 June 2012

- 8.30 Registration and coffee *Foyer ground floor*  
9.30 Opening speeches *Friedrich-Weinbrenner-Saal*  
10.30 Keynote lecture *Friedrich-Weinbrenner-Saal*  
11.00 Coffee break *Foyer ground floor*

### 11.15 **Parallel sessions I**

Challenges and new approaches	<i>2.05 upper floor</i>
Transformative impacts on research	<i>2.07 upper floor</i>
National innovation systems and policies	<i>1.27 mezzanine floor</i>
Policy instruments	<i>Press center ground floor</i>
Governance and transformative strategy	<i>2.08 upper floor</i>
New methods	<i>1.31 mezzanine floor</i>

- 12.45 Lunch *Foyer ground floor*

### 13.45 **Parallel sessions II**

Challenges and new approaches	<i>1.27 mezzanine floor</i>
Transformative impacts on research	<i>2.07 upper floor</i>
National innovation systems and policies	<i>2.08 upper floor</i>
Policy instruments	<i>2.05 upper floor</i>
Governance and transformative strategy	<i>Press center ground floor</i>
New methods	<i>1.31 mezzanine floor</i>

- 15.15 Elevator pitch contest and coffee break *Foyer / podium*  
16.00 Wrap up day 1 *Friedrich-Weinbrenner-Saal*  
17.00 Eu-SPRI Forum news & announcements *Foyer / podium*  
17.45 Drinks *Foyer ground floor*  
19.00 City walk to Karlsruhe castle  
20.00 Conference dinner *Karlsruhe castle*

## Wednesday, 13 June 2012

8.30	Registration and coffee	<i>Foyer ground floor</i>
9.00	Opening speech Keynote lecture	<i>Friedrich-Weinbrenner-Saal</i>
10.00	<b>Parallel sessions III</b>	
	Challenges and new approaches	<i>2.05 upper floor</i>
	Transformative impacts on research	<i>1.31 mezzanine floor</i>
	National innovation systems and policies	<i>2.07 upper floor</i>
	Policy instruments	<i>Press center ground floor</i>
	Governance and transformative strategy	<i>2.08 upper floor</i>
	New methods	<i>1.27 mezzanine floor</i>
11.30	Coffee break	<i>Foyer ground floor</i>
11.45	<b>Parallel sessions IV</b>	
	Challenges and new approaches	<i>2.05 upper floor</i>
	Transformative impacts on research	<i>2.07 upper floor</i>
	National innovation systems and policies	<i>1.31 mezzanine floor</i>
	Policy instruments	<i>Press center ground floor</i>
	Governance and transformative strategy	<i>2.08 upper floor</i>
	New methods	<i>1.27 mezzanine floor</i>
13.15	Lunch	<i>Foyer ground floor</i>
14.15	<b>Parallel sessions V</b>	
	Challenges and new approaches	<i>1.31 mezzanine floor</i>
	Transformative impacts on research	<i>2.07 upper floor</i>
	National innovation systems and policies	<i>2.08 upper floor</i>
	Policy instruments	<i>Press center ground floor</i>
	Governance and transformative strategy	<i>1.27 mezzanine floor</i>
	New methods	<i>2.05 upper floor</i>
15.45	Coffee break	<i>Foyer ground floor</i>
16.00	Wrap up day 2 Good bye	<i>Friedrich-Weinbrenner-Saal</i>
17.00	Drinks	<i>Foyer ground floor</i>
17.30	End of conference	



# Programme

Last minutes changes in the programme can occur.

## Monday, 11 June 2012

19.30 General assembly & dinner for invited representatives of Eu-SPRI Forum member organizations

*Hotel Novotel Karlsruhe City*

## Tuesday, 12 June 2012

8.30 Registration and coffee

*Karlsruhe Convention Center, foyer ground floor*

9.30

Opening speeches

*Friedrich-*

Harald Hiesl

*Weinbrenner-  
Saal*

(Deputy of Fraunhofer Institute for Systems and Innovation Research ISI)

Engelbert Beyer

(Head of directorate 11, Innovation Strategies, Federal Ministry of Education and Research)

Margret Mergen

(First mayor of the city of Karlsruhe)

Stefan Kuhlmann

(President of Eu-SPRI Forum)

Knut Koschatzky

(Fraunhofer ISI, on behalf of the organizers)

10.30

Keynote lecture

*Friedrich-*

Pierre-Benoît Joly

*Weinbrenner-  
Saal*

(National Institute of Agronomic Research, Paris)

Looking for 'Responsible Innovation' – towards a new research agenda for studies of innovation?

11.00

Coffee break

*Foyer ground floor*

**Track 1**

*Room 2.05  
Upper floor*

**Challenges and new approaches****Session: Challenges to established models of innovation**

Chair: Steffen Kinkel

Service-oriented government as a driver for regional innovation: the case of Suzhou and Wuxi, China

Xuanwei Cao

Innovation without R&D – heterogeneous innovation patterns of non-R&D performing firms in the German manufacturing industry

Oliver Som

Agriculture and innovation – a neglected sector in innovation research and innovation policy

Knut Koschatzky, Thomas Stahlecker

**Track 2**

*Room 2.07  
Upper floor*

**Transformative impacts on research****Session: Transformative impacts on the actors performing research**

Chair: Maria Paloma Sanchez

The impact of international research joint ventures on SMEs performance  
Ascension Barajas, Elena Huergo, Lourdes Moreno

Third-party funding as a challenge to international academic co-publishing  
Torben Schubert, Stephanie Daimer

Inside centres of excellence – funding schemes' effect on researcher identities and practises

Siri Borlaug, Magnus Gulbrandsen

**Track 3**

*Room 1.27  
Mezzanine  
floor*

**National innovation systems and policies****Session: Transformative impacts on the funding landscape**

Chair: Erik Arnold

Innovation subsidies in a federal system – innovation policy at different political levels in Germany

Lasse Becker

R&D costs evolution, new R&D models and its implications for policy  
Bianca Poti, Karl-Heinz Leitner, René Wintjes

Explaining public support for government spending on science and technology  
Luis Sanz-Menéndez, Gregg G. van Ryzin, Eloisa del Pino

## **Track 4**

*Press center  
Ground floor*

### **Policy instruments**

#### **Session: Transition-oriented policy instruments**

Chair: Emmanuel Muller

State aid regulation in the nanoelectronic innovation system  
Clemens Blümel, Sven Wydra

Credibility and legitimacy in policy-driven innovation networks: resource dependencies and expectations in Dutch electric vehicle subsidies  
Frank van Rijnsoever, Leon Welle, Sjoerd Bakker

Policies for research excellence: a comparative study of centres of excellence schemes

Liv Langfeldt, Egil Kallerud, Siri Borlaug, Mats Benner, Hanne Foss Hansen, Antti Pelkonen, Ernst Kristiansen, Dag Aksnes, Gunnar Sivertsen

Competitiveness policy evaluation as a transformative process: from theory to practice

Mari José Aranguren, Edurne Magro, James R. Wilson

## **Track 5**

*Room 2.08  
Upper floor*

### **Governance and transformative strategy**

#### **Session: Role of visions and strategy**

Chair: Ralf Lindner

Priority setting for international STI collaborations to address global challenges

Florian Holzinger, Wolfgang Polt

Anticipatory knowledge and epistemic policy communities: exploring future-oriented strategic activities in the context of transformative governance

Toni Ahlqvist

Strategic Policy Making and innovation systems theory: beyond systemic instruments

Miriam Hufnagl, Philine Warnke, Stephanie Daimer

## **Track 6**

*Room 1.31  
Mezzanine  
floor*

### **New methods**

#### **Session: Measuring emerging research areas and technologies**

Chair: Thomas Reiß

Identifying hot Brazilian science and technology: tech mining methods for relating sources of knowledge and emerging research areas

Hannes Toivanen

Innovation as a nonlinear process and the bibliometric perspective

Loet Leydesdorff, Daniele Rotolo, Ismael Rafols

Evaluating systemic innovations: the case of clean energy technologies

Floortje Alkemade, Gaston Heimeriks, Antoine Schoen

12.45

Lunch

*Foyer ground floor*

Have a ride on a Segway

*Outdoor area in front of convention center*

13.45

## **Parallel sessions II**

### **Track 1**

*Room 1.27  
Mezzanine  
floor*

#### **Challenges and new approaches**

##### **Session: Rethinking indicators for policy and governance development**

Chair: Oliver Som

Breaking down the innovation policy and system debate towards an effective toolbox of instruments

Carsten Dreher, Martina Kovac

The use of indicators and evidence in governance and policy development of science, technology and innovation

Manuel Laranja, Nuno Boavida

Policies supporting technological dynamics: why a narrow focus on R&D will not work

Jan Fagerberg, Maryann Feldman, Martin Srholec

### **Track 2**

*Room 2.07  
Upper floor*

#### **Transformative impacts on research**

##### **Session: Transformative impacts on research organisations**

Chair: Matthias Weber

Shifting power in higher education policy making. The influence of the evaluation agencies for transforming universities knowledge production  
Emanuela Reale

The PBF as an instrument for fair funding? The performance based funding in German university medicine

René Krempkow, Uta Landrock

Policy and governance for research institutes in a time of renewed mission orientation

Kate Barker, Erik Arnold

### **Track 3**

*Room 2.08  
Upper floor*

#### **National innovation systems and policies**

##### **Session: National innovation systems**

Chair: Susana Borrás

Science, technology and innovation for economic competitiveness: bridging academic to policy practice in the case of Bulgaria

Sorin M.S. Krammer, Gabriel J. Goddard

Innovation policy, human capabilities and democracy

Reijo Miettinen

**Track 3***continued*

The Norwegian innovation system decomposed: where are the synergies and which is the role of the universities?

Øivind Strand, Loet Leydesdorff

Trial and error in France's innovation policy: an activities-based approach of the restructuring of the French innovation system

Mafini Dosso

**Track 4***Room 2.05  
Upper floor***Policy instruments****Session: Public procurement for innovation (PPI) as mission-oriented innovation policy I**

Chair: Charles Edquist

Public procurement and innovation in an evolutionary framework: evidence from public sector suppliers

Jakob Edler, Luke Georghiou, Elvira Uyarra, Jillian Yeow

Defence procurement and innovation dynamics: changing patterns and policy responses

Andrew D. James, Jordi Molas-Gallart, Rikard Stankiewicz

Forward commitment procurement – practical pathways to buying innovative solutions

Gaynor Whyles, Joram Nauta, Hendrik van Meerveld

**Track 5***Press center  
Ground floor***Governance and transformative strategy****Session: New policy paradigms for radical change**

Chair: Philine Warnke

Policy-making practices and governance models of transformative change  
Marja-Liisa Niinikoski

The neglected transformation of socio-technical systems: discontinuation governance

Peter Stegmaier, Stefan Kuhlmann

Can markets function as learning arenas? Feed-in tariffs, technological innovation systems and energy transition

Jens Hanson

**Track 6***Room 1.31  
Mezzanine  
floor***New methods****Session: Sustainability transitions**

Chair: Philippe Larédo

The quest for mission-oriented science-society relations

Nicolaj Tofte Brenneche

Local leadership transforming governance to support locality eco-systems for innovation

Su Maddock

Constructing sustainable cities

Ove Langeland, Roar Samuelsen

15.15	<p><b>Elevator pitch contest</b> (Moderator Thomas Reiß) and coffee break  <i>Foyer ground floor / podium</i></p> <p>Synthetic biology  Davy van Doren</p> <p>Societal impact assessment of research programmes  Stefan De Jong, Tjerk Wardenaar</p> <p>Time lags in dynamics of GERD and GDP: cross-country analysis  Maxim Kotsemir</p>
16.00	<p>Wrap-up day 1</p> <p><i>Friedrich-Weinbrenner-Saal</i></p> <p>Towards transformative governance? Responses to mission-oriented innovation policy paradigms</p> <p>Highlights of session discussions in response to main conference questions. Presented by Philine Warnke, Philippe Larédo, Jordi Molas-Gallart, Andrea Bonnacorsi</p> <p>Plenary discussion</p>
17.00	<p>Eu-SPRI Forum news &amp; announcements  Moderator Stefan Kuhlmann (Eu-SPRI)  <i>Foyer (Elevator pitch podium)</i></p>
17.45	<p>Drinks  <i>Foyer ground floor</i></p> <p>Have a ride on a Segway  <i>Outdoor area in front of convention center</i></p>
19.00	<p>City walk to Karlsruhe castle  Meeting point: in front of convention center main entrance</p>
20.00	<p>Conference dinner  <i>Karlsruhe castle</i></p> <p>Award ceremony for best elevator pitch (Moderator Thomas Reiß)  Dinner music by Music Expose</p>

## Wednesday, 13 June 2012

8.30 Registration and coffee

*Foyer ground floor*

9.00 Opening speech

*Friedrich-  
Weinbrenner-  
Saal*

Theresia Bauer (Minister for Science, Research and Arts, Baden-Württemberg)

Keynote lecture

Fred Steward

(Professor of Innovation & Sustainability, Policy Studies Institute, University of Westminster)

Europe's 'challenge-led & broad-based' innovation policy revolution  
- a convoluted and contested transition

10.00 **Parallel sessions III**

### **Track 1 Challenges and new approaches**

*Room 2.05  
Upper floor*

#### **Session: Transformative impacts on technologies and sectors**

Chair: Ulrich Schmoch

Smoke screens and sacred fires: translational research and grand challenges in European biomedicine

Etienne Vignola-Gagné

Role of a policy mix for innovation in low-carbon power generation technologies

Kristin Reichardt, Karoline Rogge

Does the technology life-cycle moderate the innovation impact of demand-pull policies? – The case of wind turbine technology

Jörn Hünteler, Michael Peters, Malte Schneider, Volker H. Hoffmann

Unpacking the grand challenges of nanotechnology

Harro van Lente, Colette Bos

### **Track 2 Transformative impacts on research**

*Room 1.31  
Mezzanine  
floor*

#### **Session: New forms of cooperation**

Chair: Maria Paloma Sanchez

Governance and coordination of mission-oriented innovation policy: a critical analysis of partnership approaches

Erkki Karo, Rainer Kattel

Public-private partnership research cooperation

Dirk Meissner

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**Track 3**      **National innovation systems and policies**

*Room 2.07  
Upper floor*

**Session: Emerging economies**

Chair: Susan Cozzens

Assessing strategies for promoting environmental innovation: a case study of India's national solar mission

Rainer Quitzow

Chinese Shanzhai innovation as a central challenge for Europe

Jean-Marie Rousseau, Kathrin Peters

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**Track 4**      **Policy instruments**

*Press center  
Ground floor*

**Session: Public procurement for innovation (PPI) as mission-oriented innovation policy II**

Chair: Jon Mikel Zabala

Process Intermediation in public procurement of innovation

Jakob Edler, Jillian Yeow

Demand-side innovation policies in promoting mission-oriented innovation – the case of new energy vehicles in China

Yanchao Li

The transformation of the greater Manchester waste system: a role for public procurement in system innovation

Sally Gee, Elvira Uyarra

Public procurement for e-government services: challenges and problems related to the implementation of a new innovative scheme in Greek local authorities

Yannis Caloghirou, Aimilia Protogerou, Panagiotis Panagiotopoulos

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**Track 5**      **Governance and transformative strategy**

*Room 2.08  
Upper floor*

**Session: Mission-orientation in European level policies**

Chair: Knut Koschatzky

The impact of the EU structural funds and the quality of local government in the European regions

Andrea Filippetti, Luigi Reggi

Challenge-driven priorities in European research and innovation policy

Dorothy Olsen, Egil Kallerud

Joint programming initiatives: balancing national dynamics and European interests in research cooperation

Susanne Meyer, Florian Holzinger, Wolfgang Polt

Transformation of European governance via integrated policy approaches – challenges and opportunities

Nina Maier

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**Track 6**

*Room 1.27  
Mezzanine  
floor*

**New methods****Session: Foresight and participatory methods**

Chair: Kerstin Cuhls

The design of design: a systems approach to integral planning and spatial design in the Dutch Southwest delta

Bonno Pel, Jurian Edelenbos, Arwin van Buuren

Shaping social reality: foresight as catalyst for institutional change?

Katharina Jarmai

Understanding how mission-oriented research changes expert processes in foresight and how this reflects to governance

Mikko Dufva

Shaping the future – participatory foresight at the intersection of design and technology

Martina Schraudner, Michael Rehberg, Kora Kimpel

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11.30

Coffee break

*Foyer ground floor*

11.45

**Parallel sessions IV**

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**Track 1**

*Room 2.05  
Upper floor*

**Challenges and new approaches****Session: Technological innovation systems**

Chair: Harro van Lente

Tracing long term and multidimensional sequences of impact from academic R&D

Eugenia Perez Vico

Governance of offshore wind innovation in Western Europe

Marko Hekkert, Anna Wieczorek, Robert Harmsen, Gaston Heimeriks, Simona Negro

Mission-oriented policy and governance regimes in public services – the case of an innovation in sustainable public transport service

Rannveig Røste

Transition towards replacing animal tests in safety assessment of cosmetics and chemicals: a combined TIS-MLP framework

Marlous Kooijmann, Peter J.K. van Meer, Ellen H.M. Moors, Huub Schellekens, Marko P. Hekkert

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**Track 2**

*Room 2.07  
Upper floor*

**Transformative impacts on research****Session: New directions in arts and humanities**

Chair: Paul Benneworth

Arts and humanities research policy and practice in Ireland

Elaine Ward

Are arts and humanities researchers liminal in the current policy environment?

Magnus Gulbrandsen, Siri Aanstad

The eternal search for accountability and steering in Dutch humanities valorisation debates

Paul Benneworth

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**Track 3**

*Room 1.31  
Mezzanine  
floor*

**National innovation systems and policies****Session: Innovation policy dilemmas in developing countries**

Chair: Stefan Kuhlmann

Political commitment as a critical ingredient for and driver of a workable STI policy in Africa: the experience from Nigeria

Ayo Oyewale, Omowumi Hassan, Wale Olaopa

The relationship between interdisciplinary research and local knowledge: the case of Colombia

Diego Chavarro, Puay Tang, Ismael Rafols

Science, technology and innovation policy in developing countries: rationales and relevance

Gonzalo Ordóñez-Matamoros, Stefan Kuhlmann, Britta Rennkamp

An attempt to include social innovation issues in research and innovation policies in Colombia

Mónica Salazar, Martha Angélica Barrantes, Diana Lucio-Arias, Marcela Lozano

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**Track 4**

*Press Center  
Ground floor*

**Policy instruments****Session: Systemic policy instruments**

Chair: Ralf Lindner

Struggling for space: solar photovoltaic niche developments in the Netherlands and the UK

Adrian Smith, Florian Kern, Rob Raven, Bram Verhees

Managing uncertainty for radical products: changing and creating market infrastructure to prepare future markets

Aurelie Delemarle, Philippe Larédo

Managing urgent innovations – exploring restrictive and broad strategic niche management

Ellen H.M. Moors, Wouter Boon, Albert J. Meijer

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**Track 5**

Room 2.08  
Upper floor

**Governance and transformative strategy****Session: Methods for European innovation policy analysis**

Chair: Emanuela Reale

Using governmentality as a new approach to innovation policy analysis  
Peter Mayr

Conceptualising and measuring the European Research and Innovation System (ERIS)

Dimitrios Pontikakis, Luisa Henriques, Laura de Dominicis

Innovative SMEs in Europe: an integrated analysis of European and national policies

Meral El-Zein

Integration and coordination dynamics of the European Research Area. A measurement framework and its application

Remi Barré, Luisa Henriques, Dimitrios Pontikakis, Matthias Weber

**Track 6**

Room 1.27  
Mezzanine  
floor

**New methods****Session: Modeling innovation**

Chair: Jonathan Köhler

University research system dynamics: can policies effectively boost research system performance?

Jian Wang, Diana Hicks

New directions in modelling innovation: applying agent-based methods and complex systems analysis to socio-technological transitions

Jonathan Köhler, Michaela Gigli, Antje Bierwisch, Arne Lüllmann

Towards strategic management of complex systemic innovation environments: Integrating foresight, assessment, system dynamic modelling and societal embedding into a coherent model

Toni Ahlqvist, Mika Nieminen, Anu Tuominen

13.15

Lunch

Foyer ground floor

**Track 1**

*Room 1.31  
Mezzanine  
floor*

**Challenges and new approaches****Session: User and consumer dynamics**

Chair: Egil Kallerud

Consumption, configurations and innovation: Exploring new patterns of user dynamics

Ingo Rollwagen, Alexander Peine

Governance of learning processes in transdisciplinary climate adaption research projects

Wouter Boon, Edwin Horlings, Peter van den Besselaar

Innovation and infrastructure – the case of electric vehicles in Germany

Patrick Plötz, Elisabeth Dütschke, Till Gnann, Uta Schneider, Martin Wietschel

**Track 2**

*Room 2.07  
Upper floor*

**Transformative impacts on research****Session: The role of bottom-up and frontier research**

Chair: Bernd Beckert

Frontier research and mission oriented policies in university-based innovation centers – towards a new hybrid order?

Taran Thune, Magnus Gulbrandsen, Siri Borlaug

Overcoming critical gaps in the innovation value chain: the nano-to-macro approach

Peter Heydebreck, Andreas Gerdes

**Track 3**

*Room 2.08  
Upper floor*

**National innovation systems and policies****Session: Mission-orientation in innovation policies**

Chair: Jakob Edler

Investing in research and innovation for grand challenges

Johanna Kohl, Jos Leijten, Maurits Butter

Science policy approaches and responses to grand societal challenges: a comparative

analysis of research systems in Norway, Denmark, Germany and the United Kingdom

Antje Klitkou, Lisa Scordato, Dorothy Olsen

The Coordination of stakeholders in Japanese science, technology and innovation policy at the cabinet level

Noriyuki Morichika, Lee Richard Woolgar

**Track 4**

*Press center  
Ground floor*

**Policy instruments****Session: Challenges to evaluation**

Chair: Jordi Molas-Gallart

Understanding evaluation of science and technology policy in a multilevel governance context

Eduarne Magro

Using evaluation research as a means for policy analysis in a 'new' mission-oriented policy context

Effie Amanatidou, Ioanna Garefi, Paul Cunningham, Abdullah Gök

Evaluation and policy learning: toward a new approach to the evaluation of social impacts of public research activities

Laurence Collinet, Pierre-Benoît Joly, Philippe Larédo

What constitutes a good research design when evaluating research and innovation policy?

Mark Knell, Inge Ramberg

**Track 5**

*Room 1.27  
Mezzanine  
floor*

**Governance and transformative strategy****Session: International collaboration**

Chair: Knut Koschatzky

Evolution of regional scientific collaboration networks: China-Europe emerging collaborations on nano-science

Yantai Chen, Dimitris Assimakopoulos

New ways of solving problems in applied research: the example of a joint French-German research programme

Andrea Zenker, Elisabeth Baier, Emmanuel Muller, Volker Tippmann, Jean-Alain Héraud

Towards effective governance of multilateral science, technology, and innovation (STI) co-operation to address global challenges

Andreas Stamm, Aurelia Figueroa

**Track 6**

Room 2.05  
Upper floor

**New methods****Session: Multi-level perspective**

Chair: Jonathan Köhler

Using the multi-level perspective on socio-technical transitions to assess innovation policy

Florian Kern

Tracking synergies between energy security of supply and the development of the wind energy industry in Spain: an approach from a multilevel policy analysis

Cristian Matti, Rodrigo Martinez Novo, Mayte Lopez Ferrer

Systems of innovation, production and consumption. A systems perspective on goal-oriented transformative change to tackle grand challenges

Matthias Weber, Harald Rohrer

15.45

Coffee break

*Foyer ground floor*

16.00

Wrap-up day 2

Towards transformative governance? Responses to mission-oriented innovation policy paradigms

Highlights of session discussions in response to main conference questions  
Presented by Philine Warnke, Jonathan Köhler, Matthias Weber, Susan Cozzens

Plenary discussion

*Friedrich-Weinbrenner-Saal*

Good bye

Stefan Kuhlmann (President of Eu-SPRI Forum), and Jonathan Köhler (Fraunhofer ISI)

*Friedrich-Weinbrenner-Saal*

17.00

Drinks

*Foyer ground floor*

17.30

End of conference

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