



# TIP Policy Roundtable on STI Governance

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**Recent trends and developments in  
STI Governance for societal agendas**

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# WHAT IS ON THE SOCIETAL AGENDA ?

Traditional dangers involved with meeting the proverbial iceberg?

New dangers involved with meeting real melting icebergs?

**New opportunities along with challenges?**



# Social change towards the emerging knowledge society

**„Social change“ depicts the transformation of structures in one or more social system(s). [+/-]**

**„Progress“ denotes a directed and perceptible impact of acknowledged positive social change. [+]**

## **Agents of social change**

- Demographic development
- Culture, arts, science
- Socio-technical systems
- Politics & social movements
- Environment (conditions of living, climate change ...)

## **Levels of social systems**

- Macro level: State, national and international regulations ...
- Meso level: corporations, enterprises, NGOs ...
- Micro level: Life styles, patterns of behaviour ...

**Involvement of stakeholders in the governance of STI policy requires collaboration of agents of social change at all levels of social systems**

# Features of the Knowledge Society

## The new notion of „hands“ and of „brains“ in the KS

- „Hands“ became part of technological (socio-technical) systems
- „Brains“ become part of science systems „Mode 2“

## The main indicator of the Knowledge Society is not sheer lots of knowledge

- The knowledge society applies **principles of scientific knowledge creation and its implementation** to wider walks of life
- Extended use of scientific principles at the same time **increases scrutiny concerning perception, cognition and knowledge**
- **Such scrutiny breeds uncertainty** even though usually higher certainty is expected by augmented knowledge:
  - ▶ a new „knowledge paradox“ \*)

**The Knowledge Society extends capacities to modify ways and scales of using resources and innovations**



\*) **Martin Heidenreich, 2003:** Die Debatte um die Wissensgesellschaft; in: Stefan Böschen und Ingo Schulz-Schaeffer (Hg.), Wissenschaft in der Wissensgesellschaft. Opladen: Westdt. Verlag

# Current features of social change

pertaining to the transition from the  
„Industrial Society“ to the “Knowledge Society”

## Science-based technologies

are indispensable engines of economic performance

## Globalisation

shapes the framework for world economy and world society

Life expectancy and **quality of life** in islands of prosperity  
grow in contrast to poverty regions and generally rising disparities

Increasing **individualisation, flexibility, mobility** and **migration**  
entail ethnic & social rearrangements, affecting states, markets, CSOs

**Amplification of knowledge also creates knowledge gaps and  
impact on cognition and perception of reality, learning and working**

# Rationale of policy action

## Response concerning societal challenges

**Globalisation, fiscal and economic crisis, ageing population** (in OECD countries) and **climate change** breed far reaching social consequences, particularly on core topics such as

- unemployment
- poverty
- migration
- regional and urban development

### **Tools of the knowledge society are**

- science
- technology
- innovation
- education and training (skills development and use)

**Building adaptive capacity**  
to meet unknown needs of the future  
requires thinking the unthinkable

- Increasing **pace, scale** and **complexity** of the challenges we face means that society and its institutions must become more **adaptable, collaborative** and **resilient**.
- This requires **systemic** innovation.

Maria Lemos (U. of Michigan, Ann Arbor) & Brenton Caffin (Australian Centre for Social Innovation)



# INCLUSIVE TYPOLOGY OF INNOVATION

The surface („first notion“) of innovations

More ↔ less, faster ↔ slower, growth ↔ decline

Innovation systems (sectors, regional, national, international)

confined ↔ open

## Typology of innovations, including social aspects

Technological business innovations		Non-technological business innovations		Social innovations in business sectors, politics/ public admin., state, civic society, social „milieus“		
Product *)	Process *)	Organi- sation*)	Marke- ting*)	Stakeholder involvement ◊]	Procedures in decision making ◊]	Behaviour, Life styles ◊]

Topical objectives („patterns“) of innovations

economic objectives ↔ social objectives

Socio-cultural foundations of innovations:  
Value systems, equity/disparities, inclusion/exclusion



\*) „Innovation“ as defined by the „Oslo-Manual“: OECD/EUROSTAT, 2005. -- -- ◊] Indicative examples

# The most needed social innovations of the 21st century

- Challenging the dominant conceptualisation of economy as management of scarcity by social principles aiming at management of abundance

cf. „affluent society“, Galbraith 1958; and recent debates addressing relations of the financial sector to the real economy

- Permeation and institutional implementation of lateral (non-linear) thinking in economic processes, education, science and research, politics and governance.

Edward de Bono: "Lateral Thinking is for changing concepts and perceptions"  
<http://www.edwdebono.com/debono/lateral.htm>



# The role of science in society shifts from transfer to co-production of knowledge

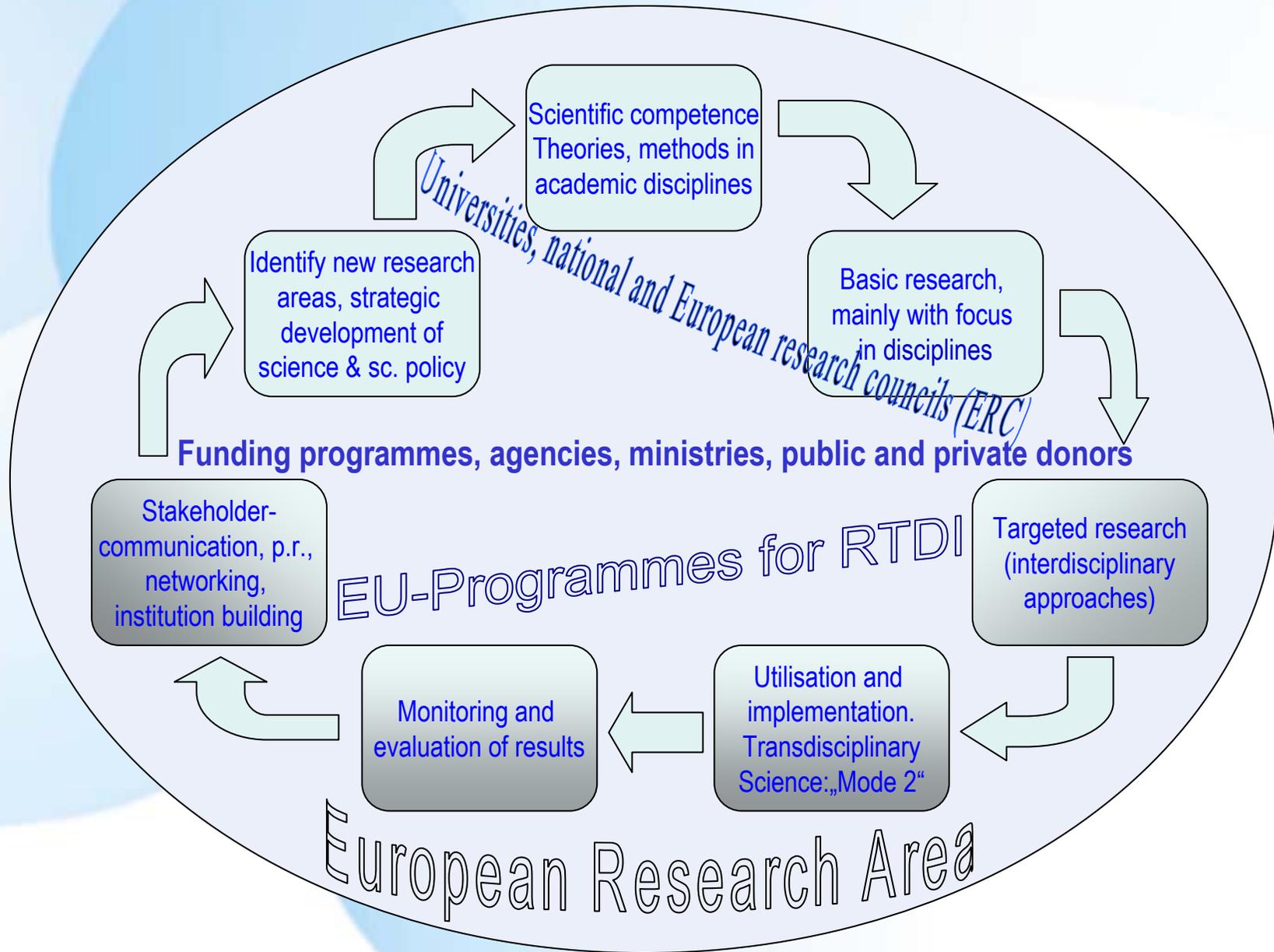
Organisations of education and science need to become learning organisations, aiming to institutionalise social networking research, to **produce socially robust knowledge.**

Hans-Werner Franz, University of Technology, Dortmund



# The widening scope of social science

The trans-disciplinary cycle covering development of the knowledge base, knowledge production, use and diffusion of knowledge



# Involvement of stakeholders

## EU Framework Programme for RTDI

- Social Sciences and Humanities and other research programmes
- Social platforms, provide opportunities for progress of knowledge and concrete initiatives, including participative approaches with the users

## Infrastructures

- Networks: ERA Net and INCO Net projects
- FP7 supports infrastructure development in social sciences
- In addition: Complementary national programmes for the improvement of social sciences infrastructures should be established

## Public consultations

- Greenbook / Whitebook procedures
- Other models of participation, e.g. “Consensus conferences”

# Governance

## OECD

- “Investing in Innovation for Long-Term Growth” (June 2009)
- Development of a systemic concept and comprehensive indicators of innovation (beyond the business sector and including social aspects)

## European Union

- **The post-Lisbon strategy, ”EU 2020”**  
Strong support by President Barroso for “social innovation”
- **“Renewed Social Agenda”** (2020); sector policies take more and more care of social innovation in the definition of policies: employment, health, education and life long learning, cohesion, inclusion,...
- **“European Innovation Act”** and **“European Research Area”**, driven now by societal challenges
- **“Financial perspectives”** (2013-2020) will be the most crucial

## The public sector at national levels

- Public funding agencies/research councils
- Supporting new jobs for “green economy”
- Funding of research on social innovation and implementation
- Welfare systems for urban and cohesion issues

## Private business sectors and foundations

- Investment in social economy and social entrepreneurship

**Thank you for your attention !**



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