

Strategic Funding for Sustainability Science

Panel 2: Outcomes of the Discussion

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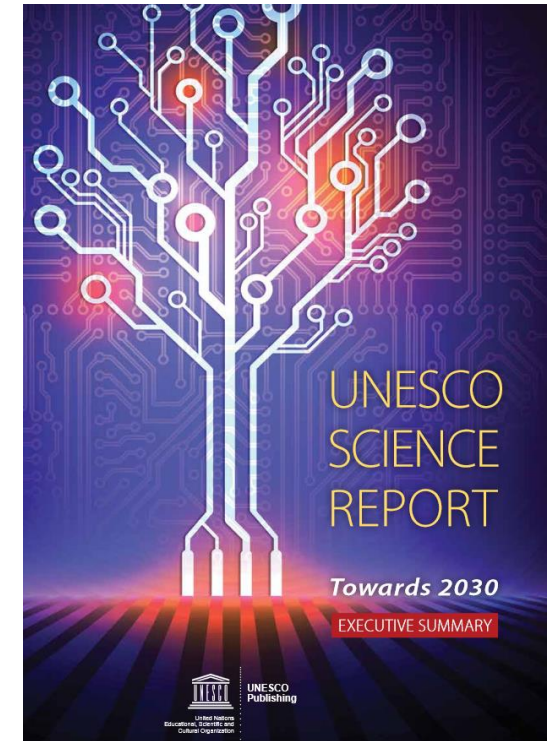
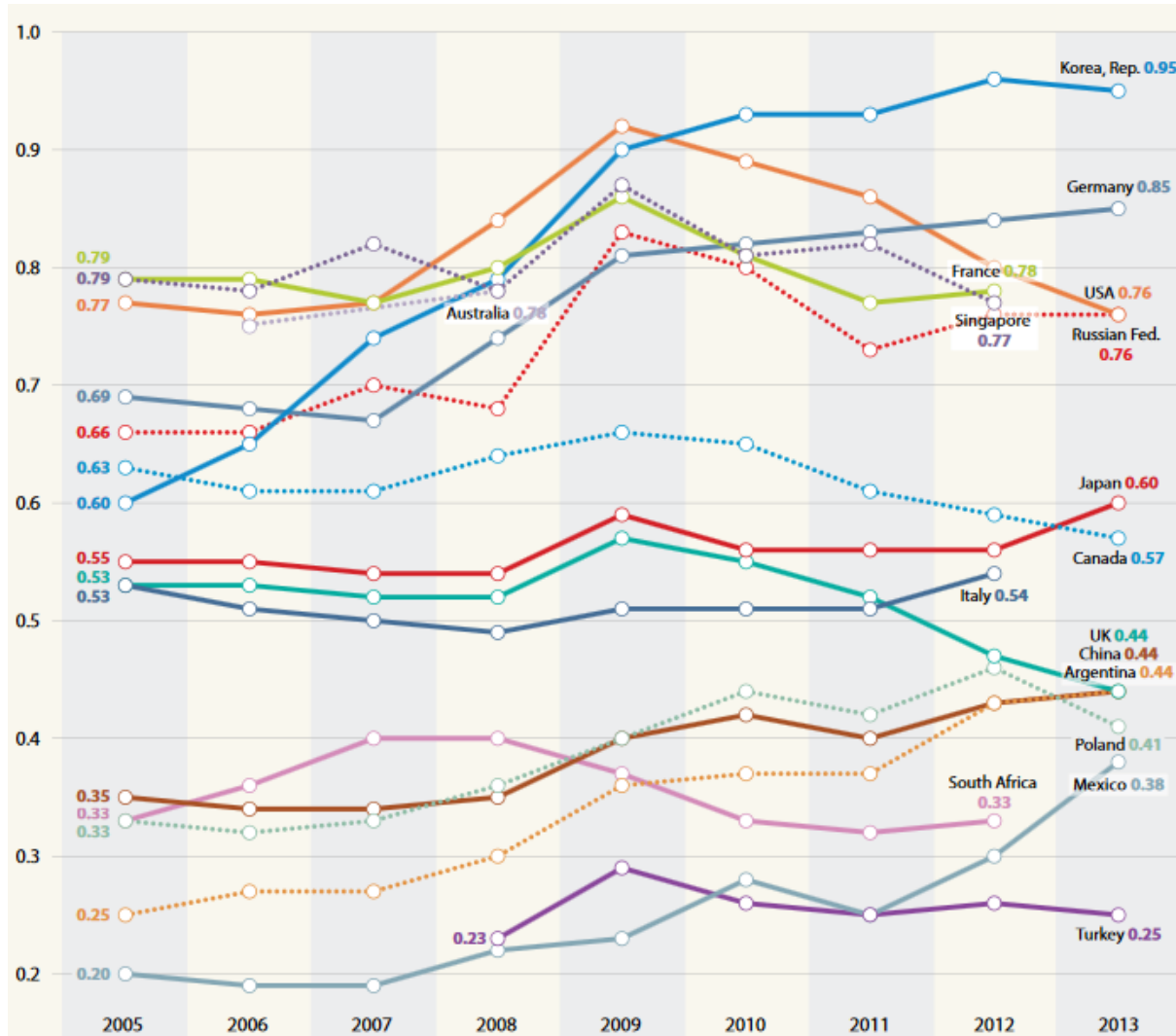
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United Nations
Educational, Scientific and
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German Commission
for UNESCO

Upscale public funding for any science



GERD financed by government as a share of GDP, 2005–2013 (%)



Upscale public funding for any science

- To expand knowledge
- To solve social challenges
- To improve innovation and competitiveness
- To spur private-sector research
- To overcome „resource curse”
- To promote peace and collaboration

Sustainability Science is an addition to the scientific portfolio. It can be disciplinary, interdisciplinary and transdisciplinary research, these complement each other.

Sustainability Science

- *Sustainability Science is any form of research and education that results in knowledge, technology, and innovation which will allow to better address global and local sustainability challenges.*
- Problem-oriented, i.e. oriented towards a *“real problem” defined in the world*, not mainly addressing a research question as defined by the scientific community
- Not only individual challenges (e.g. climate change), but *interdependence* of challenges, *dilemmas*, *complexity* and *reinforcement*, the *conflicts of goals and interests* (“wicked problems”)
- *Science which is structurally and methodologically adapted to these wicked problems* to have potentially useful results (options, scenarios to make the world more sustainable)



An integrated agenda?

We often simplify:
“an integrated agenda”



We ignore dilemmas,
conflicts of goals,...



The reality: Institutions
follow sectoral approach



“Nexus” concepts as first
attempt for way out

Sustainability Science focusses on interdependence of SDGs, trade-offs, dilemmas, complexity and reinforcement, the conflicts of goals and interests

Sustainability Science – The challenge

What is the research about – The research question



Basic research: Defined by researchers

Contract research: Defined by users



Co-design: Through dialogue



Sustainability Science – The challenge

How is knowledge generated?



Disciplinary research



Interdisciplinary research



Co-production of knowledge



Sustainability Science – The challenge

How is knowledge applied?



Standard research



Co-implementation

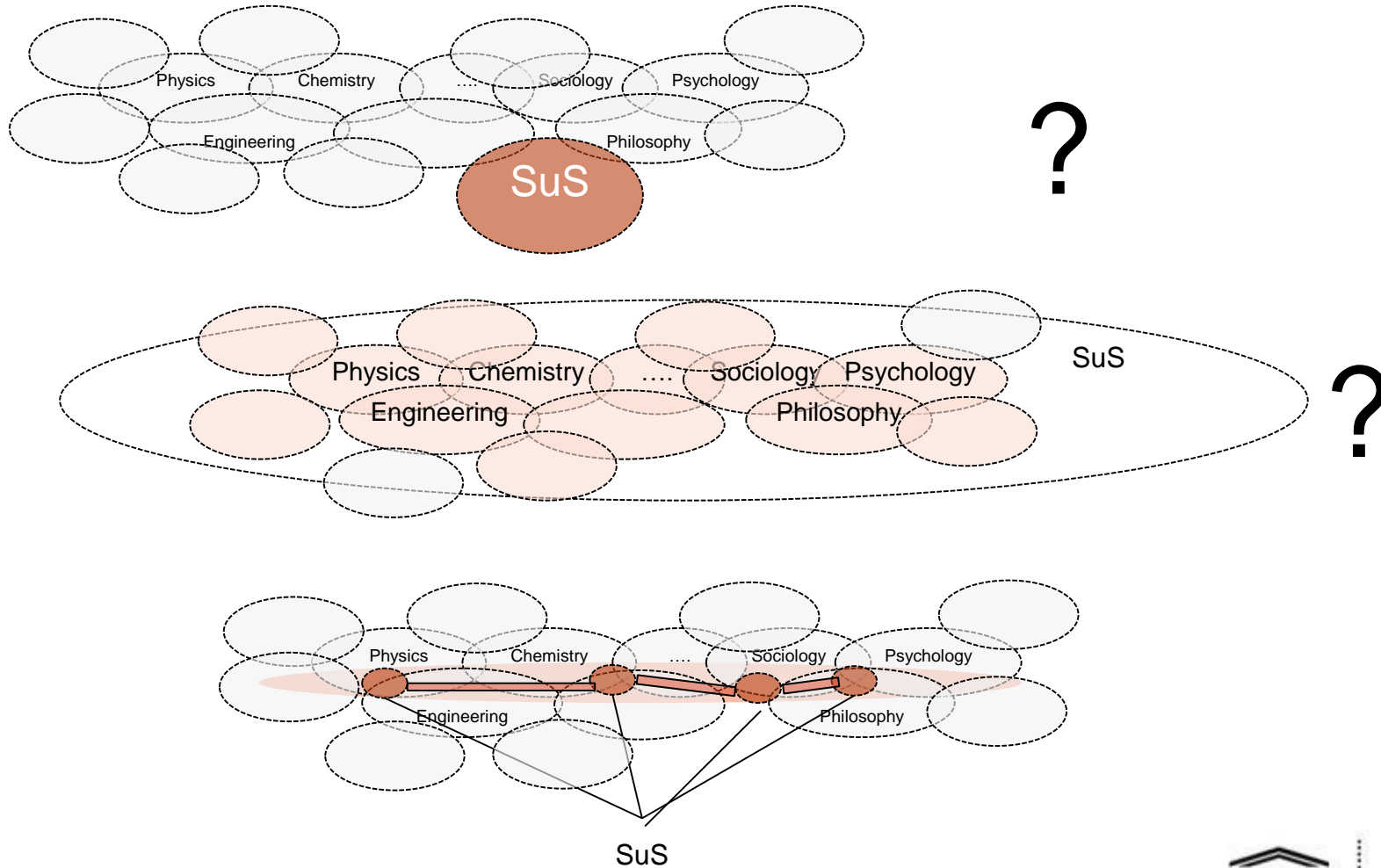


Sustainability Science – An example

- Traditional textile industries in the small town of Dietenheim (6,000 inhabitants South Germany)
- High competition from global markets
- Factories squeezed out, unemployment, New trend in Europe of “throw-away textiles”, deserted inner city
- *Sustainability as a future for these textile industries – Sustainability Science project “Dietenheim as Sustainability real life laboratory”*
- Co-design and co-production with companies and local industries (lead by 2 local universities)
- New initiatives in design & creativity, city as flagship for ecologically responsible, local and fair production & consumption, sharing economy, revitalizing intangible heritage



Sustainability Science – new method, no new discipline



Funding strategies

- Based on *competitive frameworks* to ensure scientific excellence
- Implement through *same funding agencies* in charge of other scientific fields/methods to avoid impression of different value of Sustainability Science
- *Diversify sources*, e.g.
 - international organizations,
 - government departments,
 - academies,
 - other science-based bodies as well as
 - public and private foundations
- *For international cooperation*, further diversify sources, e.g.
 - development agencies, both national and multilateral
- *Crowdfunding* could be a future option

Funding requirements

Adapt to the requirements of Sustainability Science

- Co-design needs time to build understanding and trust
- In particular, co-design between the North and the South needs time
- Co-production needs time, in order to understand approaches, to test and verify knowledge
- In particular, co-production between the North and the South needs time
- Co-implementation needs time, in comparison to „end-of-pipe“

Funding requirements

The reality of research funding today:

Calls for proposals often

- are open only for some weeks
- only cover projects of 1-3 years
- do not cover preparatory work
- do not cover implementation, evaluation and „transfer“
- are very prescriptive in terms of disciplines
- are very restrictive in terms of who can benefit from funding
- do not allow real co-operation at eye level (North-South)



Recommendations

- Calls for proposals with sufficient time, to allow co-design
- Provide funding for preparing project proposals and possibly require co-design elements
- Funding periods of more than 3 years, to allow co-production
- Provide funding for implementing and evaluating research and possibly require co-implementation elements
- Requiring co-operation at eye level in international partnerships (North-South)
- Provide for methodological diversity
- Support the development of new indicators for the impact of Sustainability Science

Thank you for your attention!

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