Transforming the Knowledge System to Support Research Integration and Implementation

Jill Jäger
The Underlying Issues

- Accelerating global change
- Planetary boundaries
- Multiple and interacting pressures
- Partial solutions for one problem lead to pressures in another area
Often seen as a series of separate problems with separate priorities and solutions.

Strongly coupled with issues like poverty, inequality and lack of capacity.
But the Earth behaves as a system, where biological and physical processes interact (also with human systems) to determine prevalent global environmental conditions.
More than 20 years after the Rio Conference, we are faced with persistent problems of unsustainability, which are

• complex

• riddled with uncertainties

• deeply rooted in our societal structures and culture
Transformative systemic changes are needed to deal with Earth System challenges.
• Transformative change is not compatible with the “old model” of “science finds the answers and tells everyone else what to do”.

• Instead we need open cooperation and dialogue between the scientific community and all other stakeholders (those with relevant knowledge for contributing to solutions)
A Transformation of the Knowledge Systems

Knowledge as closed SES disembodied uniform system

Knowledge

Non-knowledge

Information and knowledge systems as composed by a single type of knowledge in a closed uniform space

Knowledge as an open but SES embodied diverse system

Information and knowledge systems as composed by multiple SES embodied Knowledge configurations in an open space

www.esf.org/RESCUE
Participation in Open Knowledge Systems

- Enhancing the use and validation of local and specialized knowledge
- Providing space for dialogue, communication and learning
- Supporting common framing of issues (place-based, needs-driven)
- Improving the legitimacy of processes
- Supporting “buy in”
- Improving understanding of the socio-ecological system
For Example: InContext

Abbildung 1: Schematische Darstellung des Projektablaufs "LebensKlima in Finkenstein"
A Transformation in Science

• Broad collaboration, transdisciplinary knowledge integration and understanding;
• Implementation – oriented (supports decisive changes in individual behaviours and collective values);
• A systemic open approach;
• New criteria and procedures for assessing scientific excellence and societal impact.
Example: Knowledge Integration

RESPONDER Project: [www.scp-responder.eu](http://www.scp-responder.eu)

System Mapping as a tool for knowledge brokerage
InContext Project: http://incontext-fp7.eu/

• (Action) Researchers working in the pursuit of sustainability are not neutral analysts and should engage in self-inquiry and reflection

• The practical experience from InContext shows that transparency, trust building and adapting to the local context are crucial in opening up and maintaining communicative spaces
Example: A systemic approach

Integrated Sustainability Assessment

The MATISSE Project: www.matisse-project.net
Example: New Evaluation Criteria

Discussed extensively in the Project VISION RD4SD: [www.visionrd4sd.eu](http://www.visionrd4sd.eu)

RD4SD-relevant evaluation practices:
An ad hoc study for the VISION RD4SD project

Paul M. Weaver
Moving forward

- Projects need time (fund phases);
- New skills (e.g. facilitation, mediation, system thinking);
- Researchers become a part of the process;
- The outcomes are open;
- “Excellence” refers to success in the process design and implementation and not the number of peer-reviewed papers.
A Transformation of the Knowledge System

- A deep, systemic change in both research and academia.
- Experimentation and learning
Thank you for your attention!