



Connecting science and policy to improve sediment management

Adriaan Slob





SedNet introduced sustainable sediment management

- › Systems perspective, holistic approach;
- › Balancing economy, ecology and social aspects;
- › Stakeholder involvement;
- › Institutionally complicated: which laws and regulations are applicable?
- › Integrated approach needed but policy “silo’s” are very dominant
- › Many scientific disciplines involved
- › Complexity!





Spatial Planning

Soil

Surface water

Sediments

Politics

Ministry

Ministry

Ministry

Ministry

Stakeholders

Province

Province

Province

Civilians

Municipality

Municipality

Municipality

Municipality

Spatial planning
research

Water Board

Water Board

Sociology

Toxicology

Ecology

Hydrogeology

Regional
economics

Geology

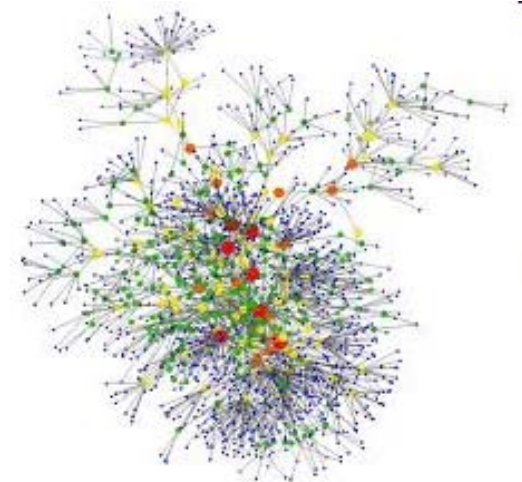
Hydrology

Chemistry



The Science-Policy landscape:

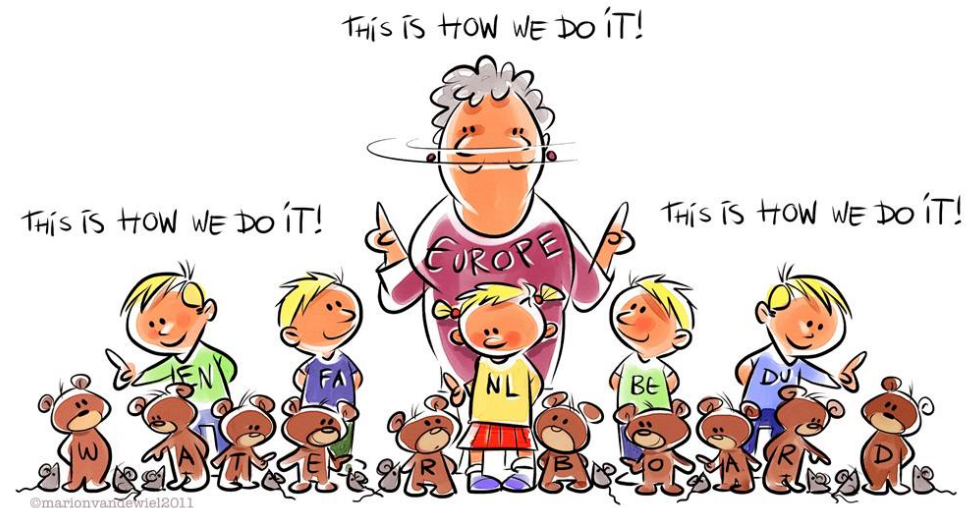
- › Fragmentation
- › Many Boundaries:
 - › science-science boundaries
 - › policy-policy boundaries
 - › science-policy boundaries
- › **How to connect?**
- › Some answers from different projects





Connecting policy and science

- › The governance processes differ on the local, national and EU-scale. They require different approaches and timing;
- › Making the connection takes a lot of time and is crucial to build trust and create commitment;
- › The timing must be right: identify windows of opportunity;
- › Commitment and facilitative leadership on the policy side and flexibility on the research side are prerequisites for the connection between the two





Knowledge brokering instruments

- › Instruments are available that foster :
 - › the sharing of experiences and knowledge,
 - › the integration of different types of knowledge,
 - › and the generation of new views, insights and knowledge
- › Not the instruments itself, but the process that is unrolled by the instruments leads to these impacts





Knowledge brokering processes

- › The process needs a facilitator to apply the knowledge brokering instruments properly
- › To achieve continuity we must go beyond the use of knowledge brokering instruments and take into account organisational structures and institutional boundaries





The role of the knowledge broker

- › A knowledge broker has good communication skills, a broad background, can operate between domains, and knows the languages of the domains
- › Various people in a group can act as knowledge brokers representing their domain. However, often there is no 'one person' that overlooks the whole system or process





The new role of knowledge

- › System understanding and “system knowledge”
- › Scientists and actors in the system can fill in parts: co-creation and sharing of knowledge
- › Knowledge beyond boundaries of disciplines and policy silo’s
- › Scientists become also “part” of the system: form of “action research”
- › Learning, reflection, and reflexivity
- › The “humble scientist”





What are interesting topics for a SedNet working group on science – policy?

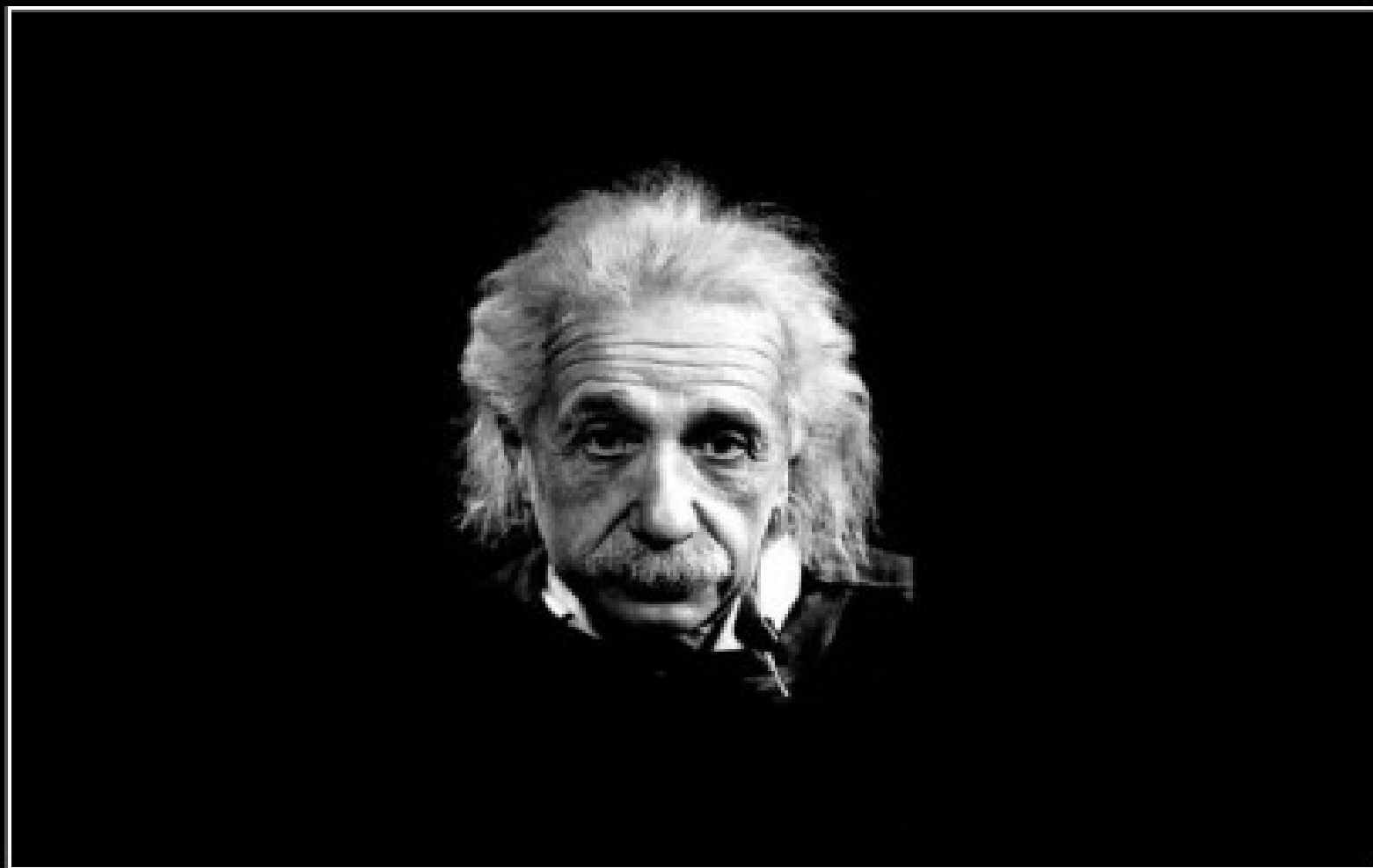
- › Interdisciplinary work: how to improve that?
- › Making the connection with policy: how to do that?
- › Instruments to share and co-create knowledge
- › Stakeholder involvement processes
- › Skills of the “humble scientist” or the knowledge broker
- › Crossing boundaries in policy for systems management





What could we do?

- › Every year a workshop on a specific science policy topic resulting in a SedNet paper and recommendations related to sediment management;
- › Exchanging experiences from relevant projects;
- › Publishing joint articles, chapters for books, etc.
- › Developing joint research proposals (EU, other);
- › Training sessions in knowledge brokering;



PROBLEM SOLVING

We can't solve problems by using the same kind of thinking we used when we created them.