

# Knowledge Brokerage for Sustainable Development

Bridging the gap between science and policy making



a.Prof. Dr. André Martinuzzi  
Head of the Institute for Managing Sustainability  
[www.sustainability.eu](http://www.sustainability.eu)



# How to bridge the gap?

## **Simplified approaches**

follow a linear model of knowledge flows and assume that the provision of correct information (science) automatically leads to a different decision (policy)

no real problem

## **Network-based approach**

is are characterized by long-term interactions to build up trust mutual understanding of contexts, rationalities, perspectives, and interests

**need for insights & tools**

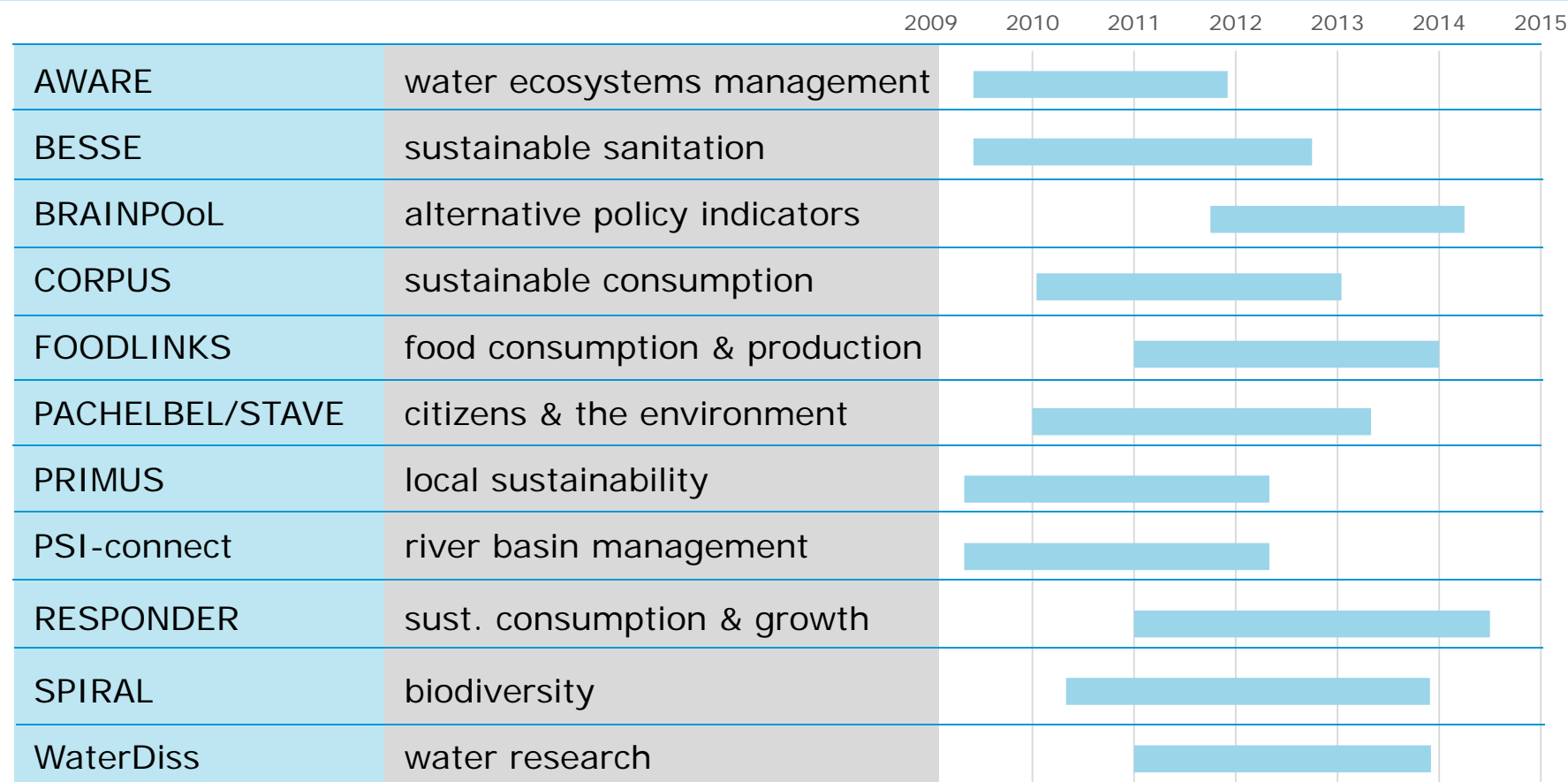
## **System theory based**

**approaches** see science and policy-making as self-referential and autopoietically closed social systems and discusses the fundamental limits of knowledge transfer

no real solution

# How to bridge the gap?

11 EU funded projects on „Knowledge Brokerage between Research and Policy Making“



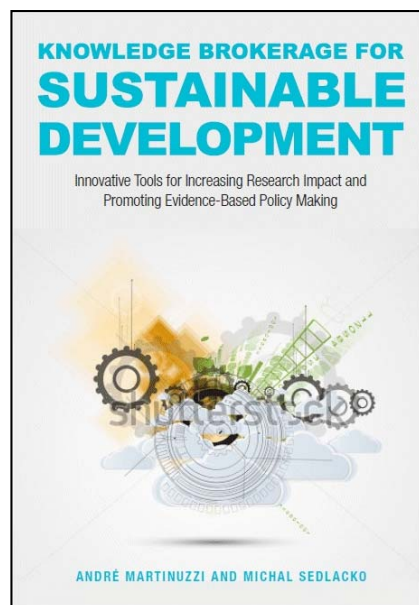
# How to bridge the gap?

11 EU funded projects on „Knowledge Brokerage between Research and Policy Making“

average project duration 3 years

total EU contribution ~ 14.5 mio €

average EU contribution ~ 1.3 mio €



# **AWARE:** **Sustainable Water Ecosystem Management**



Tools: **‘European Citizens’ Juries’**: small panels of randomly selected citizens judging research goals and outcomes as well as solutions in the form of management options in the frame of professionally facilitated citizens conferences.

Learnings: Citizens’ juries help developing **trust between stakeholders and legitimate socially acceptable solutions.**

# **BESSE: Sustainable Sanitation**

---

Tools: '**Strategic Maps**' jointly developed by technologists and policy makers, involvement of the local community through participatory technology validation.

Learnings: Scientific knowledge is inextricably **interwoven with other kinds of knowledge.**



# **BRAINPOOL: Sustainability Indicators**



Tools: knowledge brokerage **events and a permanent network around an online platform**, aiming to stimulate interaction between NGOs, scientists, statisticians and policy makers dealing with Beyond-GDP-Indicators.

Learning: establishing a smaller but **legitimate group** of event participants acting as the event's memory, preserving its momentum and further developing its results.

# **CORPUS: Sustainable Consumption**



Tools: interactive web platform ('knowledge units', some of them provided on policy makers' demand) and a series of workshops testing different tools and session formats (collaborative envisioning, **joint development of research agendas**).

Learning: Scientific knowledge needs to be **'enriched' through social processes**, reframed through the views of participants and thus fused with values and judgments.

Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (Austria)  
Ministry of the Environment (Finland)





# **FOODLINKS: Food Policy Issues**



Tools: Three thematic **communities of practice** (CoPs) built around concrete municipal food initiatives, each jointly led by a policy maker and a researcher.

Learning: **Social dimensions and temporal dynamics** of learning are more important than the technical and managerial perspective of knowledge management or knowledge transfer.

# **PACHELBEL: Consumers' Attitude-Behaviour Gap**



Tools: facilitation of the interface between citizens/consumers and policy makers; 'Systematic Tool for **Behavioural Assumption Validation and Exploration**' (using cartoons, diary excerpts, simulated newspaper articles).

Learning: Processes of dialogue have resulted in **higher degree of reflection** in policy makers.

# PRIMUS: Local & Urban Sustainability

Tools: promoting personal linkages between researchers and policy makers through networking workshops, facilitation of personal interaction, exchange of experience, and collection of **good practices of cooperation** between local governments and researchers.

Learning: The **ability of research to produce critical results** which might be difficult for policy makers to accept **needs to be protected**.

# PSI-CONNECT: River-basin Management



Tools: Instead of translating research results into the languages of target communities, the project attempted the opposite – **bringing members of other communities** (water authorities, NGOs and citizen groups, businesses, labour unions) **onto the platform of science.**

Learning: three **different roles** in the processes of KB:

- (1) 'facilitative leader'  
(credibility and trust of policy makers)
- (2) 'knowledge broker'  
(bridges professional languages)
- (3) 'facilitator'  
(designing event methodology, facilitation).

# **SPIRAL: Biodiversity-related Knowledge**



**SPIRAL**  
Linking Biodiversity & Policy

Tools: ‘Dynamic **Network of Advisers**’ (a panel of over 50 representatives of various communities including the scientists)

Learning: Policy making structures do not have any preference for scientific findings. Therefore scientists should find a **group close to policy making which will ‘carry’ their results.**

# RESPONDER: Sustainable consumption and growth debates



RESPONDER  
Linking SCP and Growth Debates

Tools: **Participatory system mapping** as a tool for knowledge co-creation and to increase mutual understanding.

Learning: Main difference is not between a scientists and a policy makers mind, but the much **deeper rooted values attitudes** (e.g. regarding innovation or personal liberty).

Bundesministerium für Umwelt, Naturschutz und  
Reaktorsicherheit (Germany)  
Federal Department for Environment, Transports,  
Energy and Communication (Switzerland)

# The (often implicit) games of knowledge brokerage

## 1. 'Questions-And-Answers-Game'

- are policymakers willing and able to formulate questions (in public)
- are researchers willing and able to give and commit to clear answers
- runs the risk of setting too narrow a framework for scientific inquiry

## 2. 'Agenda-Setting-Game'

- legitimacy of agenda setting remains contested
- political responsibility may be delegated to the scientists
- Risk of constructing an artificial lack of alternatives and reducing policy making to a form of implementation management

## 3. 'Community-Formation-Game'

- questionable if a common interest and shared practice exists
- questionable whether time and contact intensity are sufficient to create a viable community
- fundamental contradictions of science and policy making are downplayed

## 4. 'Re-Framing-Game'

- too time intensive and complicated for policymakers interested in fast and easy solutions
- means to question patterns of explanation and world-views

# What **researchers** should keep in mind

1. Policymaking takes place at **different places** by **different actors** at **different times**.
2. As policymaking requires fast and pragmatic decisions, the **time for adequate and detailed discussions** is often lacking.
3. Policymaking is primarily **based in political values** and beliefs, persuasion and negotiation, rather than scientific evidence and truth.



# What **policy makers** should keep in mind

1. There is a **lack of incentives for scientists** to engage in knowledge brokerage with policymakers
2. Scientific communities, careers and reputations are **organised in academic disciplines** while inter- and transdisciplinarity fields are perceived only as an add-on.
3. Scientific results **cannot be directly translated** into policy recommendations or decisions.

# What should be considered in designing knowledge brokerage systems

## 1. Quality, types and sources of knowledge

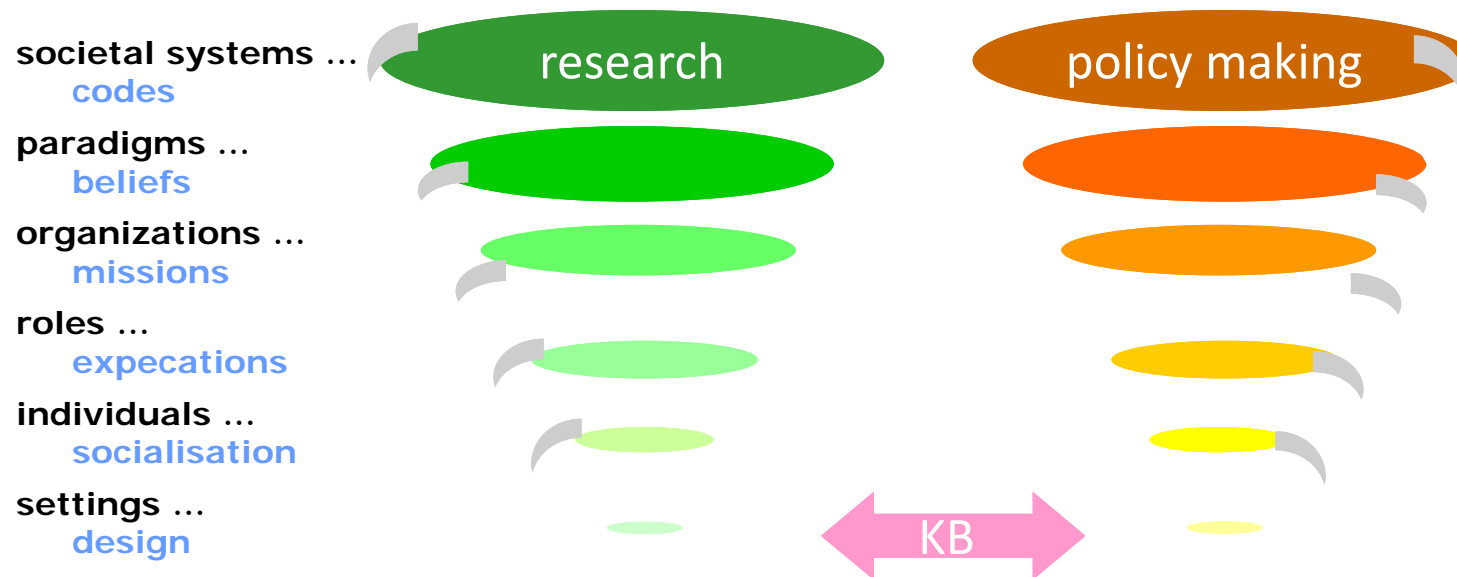
- A. descriptive statements ('facts') – measuring 'how it is'
- B. causal statements ('causalities') – clarifying 'why is it that way'
- C. predictive statements ('futures') – inferring 'what will happen if'
- D. interpretive statements ('explanations') – understanding 'how it makes sense'
- E. framing statements ('systems') – delineating 'how it could be understood'
- F. normative statements ('goals') – postulating 'how it should be'

## 2. Multilevel embeddedness of Knowledge Brokerage

## 3. Professional design and implementation

# What should be considered in designing knowledge brokerage systems

1. Quality, types and sources of knowledge
2. Multilevel embeddedness of Knowledge Brokerage



3. Professional design and implementation

# What should be considered in designing knowledge brokerage systems

1. Quality, types and sources of knowledge
2. Multilevel embeddedness of Knowledge Brokerage
3. Professional design and implementation
  - **Temporary institutional arrangements for specific purposes**  
e.g. citizen panels, communities of practice
  - **Documents adapted to the needs of target audiences**  
e.g. policy briefs, simulated newspaper, knowledge units
  - **Co-Production of shared outcomes**  
e.g. joint research agendas, evidence documents
  - **Specialized event formats**  
e.g. webinars, summer schools, brokerage events
  - **'Micro-level' work formats and event tools**  
strategy mapping, system mapping, buzz sessions, real-time surveys