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# Social Learning in Public Participation for Sustainability

*Measuring the quality of participatory approaches*



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# Overview

- The context (ARTEMIS project)
- Framework for social learning
- Research hypotheses
- Assessment and preliminary results
- Conclusions

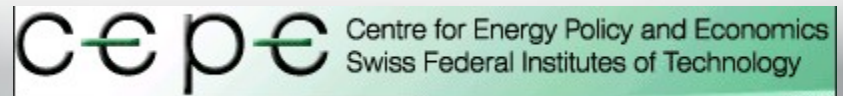


# The context - ARTEMIS



## Participatory MCE of renewable energy scenarios for Austria

- Participatory Workshops
- Scenario building
- Multi-criteria evaluation



# Main components of SL



- **Cognitive learning** or the acquisition of knowledge
- Mutual understanding or **attitudes**
- iii) Learning about behaviour or preferences of others and behavioral norms, **skills**
- iv) Learning about societal needs and ways for institutional change (**joint action**)



# Social Learning ...



... encompasses a dimension of changes in values, norms, frameworks and skills that transcend the sphere of explicit cognitive knowledge; enhancing a chance for mutual understanding, joint action and institutional change.





# Main hypotheses

- *Hypothesis 1:* There is a change in knowledge within an existing frame of reference, which involves the adoption of new facts (**single-loop learning?**).
- *Hypothesis 2:* There is a change in the evaluation of facts on the basis of modified values and assumptions (**double-loop learning?**).
- *Hypothesis 3:* People find new ways to deal with complex and conflict-ridden issue in a constructive way (incl. joint action) and contemplate to transfer this knowledge to other settings (**triple-loop learning?**).



# Data collection and analysis



- Closed-ended questionnaires based on Likert scale responses
- Completed at the beginning of the first and at the end of each of the following workshops
- Statistical analyses to study the significance of observed changes (non-parametric tests)
- Personal interviews (ongoing)



# Results



## Single-loop learning

Participants ...

- are more familiar with the different renewable energy sources
- have learned to compare different energy mixes and about their relative contributions to sustainability

## Double-loop learning

Participants ...

- modified their assumptions (give more relevance to social parameters and values in the conflict)
- did not change their perception about complexity or uncertainty; perception of the role of future generations remained high
- remained at the same level of mutual understanding

## Triple loop learning

Participants ...

- saw participatory processes as a basis for constructive discussion after the workshop
- were optimistic about the possibility for joint action
- considered transferring IA and stakeholder participation to other settings.

# Conclusions



- Participatory approaches with the help of scenario techniques and MCE can foster SL processes that go beyond the acquisition of facts and information.
- Renn suggested that social learning should be a quality criterion for participatory processes; we think now that this criterion can be operationalised.



# Food for thought (questions for discussion)

- Can we determine what should be learned in a participatory process for sustainability?
- Qualitative and/or quantitative assessment?

**Comments welcome**



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# Three approaches to social learning

## 1) Information deficit models

→ lack of environmental knowledge

## 2) Social-structure focused theories

→ social obstacles

## 3) Evolutionary or complex adaptive systems theories + postnormal science

→ complexity and uncertainty

