

## **Summary of Session I**

### **The role of actors, networks, and institutions in the process of change towards renewable energy self-sufficiency**

In the session, the importance of visions, and in our case, the future state of an energy system for the process of transformation, were discussed. Visions, for example, like Renewable Energy Regions, Smart Cities, Green Cities, Green Power Valley or competitive renewable energy industry, bring together different actors, help to link networks, and/or build the foundation for institutions that support the process of change towards renewable energy self-sufficiency. However, due to the plurality of existing visions, conflicts and tensions regarding which path or combination of them is best to follow can emerge.

If a plurality of visions is acceptable, the question that remains is who specifically is vying for the implementation of a desired state of the future energy system? In the session, various papers that focus on the role of actors within the implementation process were presented.

In the presented case of Güssing, Austria a network of different local actors; local government, land and resource owners, and energy consumers initiated the process to transform the local energy subsystem. In time other actors such as energy producers, and scientists, joined the network, thus bringing the process to a new level. In another case, the special role of local operators as instruments for a local energy policy in France was highlighted.

Linking local authorities and green business may also be a powerful relationship to establish e.g. the vision of Green Cities, especially in developing countries where the largest demand for energy in the future is expected. Another important link between local and national levels was presented during the case of Baoding, China, where the local government took advantage of the newly national government initiated Renewable Energy Law, which aimed to support the development of Renewable Energy in China. The establishment of such national incentive schemes can also help to constitute market relationships. Individual actors perform through market value chains so that renewable energy is distributed to the end consumer. Therefore, the national government can be a key player in the transformation of the energy system by establishing support programs or approving industrial policy that aims to develop a competitive home grown renewable energy industry. This goes to say, that while concrete action is occurring on a local level, activities on other scales are valuable in the process of change.

In addition, the role of scientists as actors was heavily discussed during the session. It was thought that scientists should help the different actors to reflect on their visions and anticipate underlying conflicts and tensions. In other words, scientists should act as facilitators or mediators between actors and possibly develop tools, for example, scenario building. This, however, leaves open the question of what scientists should do if they hold a vision of the future energy system that conflicts with the vision they are to help implement.

# Session I

## Actors, networks, institutions

Scientists:  
→ Identifying tensions  
→ Finding agreement

Scientists:  
Anticipate conflicts  
→ smoothing transition

Scientists as facilitators

Vagueness of Visions a Problem?!

How to initiate Visions?

Visions often:  
- are too narrow  
- are too generic  
- neglect feasibility



Plurality of Visions a Problem?

Visions have instrumental value

Importance of discourse

Do we need better visions?

Interactions between different levels of discourses



Multi-criteria (Vision) Decision-making process

Scenario building

Participatory Vision building process



Role of Power Relations in Actor Networks?

Very small number of key actors! (Role of Leadership?)

Powerful actors dominate participatory-processes

Changes in actor networks during the phases of transition

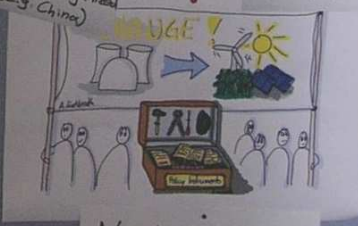
Economic transformation can happen/be organized quickly (e.g. China)

Interactions between local/national/global markets



Stronger role of municipality

Asset to develop bottom-up initiatives



Need for combination of production and operation of RES