

Ecologic Institute
An International Think Tank for Environment and Development

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► ENERGY TRANSITION AND BEHAVIOURAL CHANGE IN RURAL AREAS

THE ROLE OF ENERGY COOPERATIVES

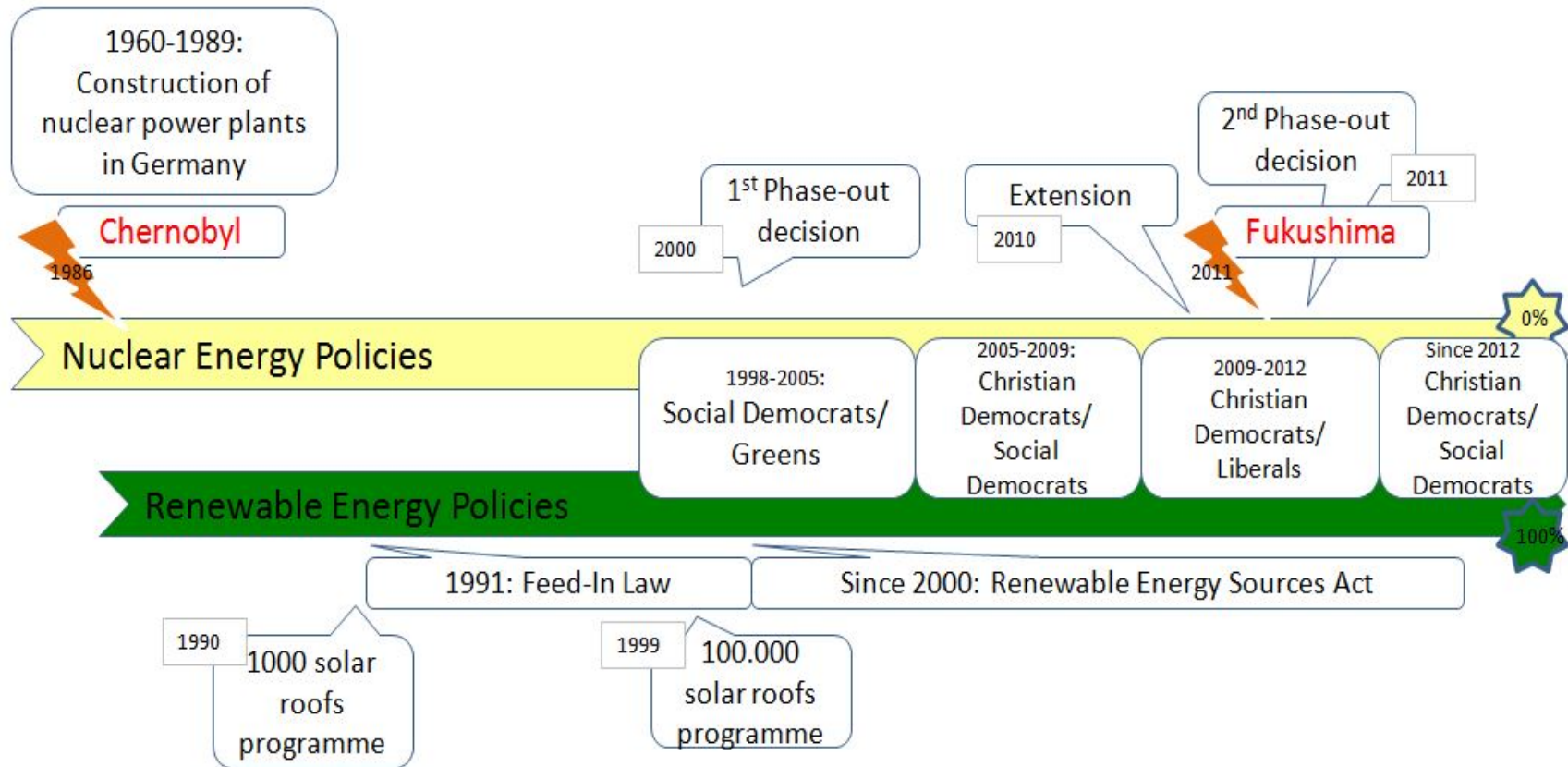
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Thematic background

- ▶ Radical change of our economy is needed
- ▶ Structural transformations are currently impeded and only occur in certain niches
- ▶ Cities and urban areas are the major origin of social innovation
- ▶ Energy transition in Germany and other European countries has redirected focus of economic development to rural areas
- ▶ Challenges of rural areas:
 - ageing population, high unemployment rates, social disparities and the lack of adaptive potential to the global market
- ▶ New actors in the energy market?: Energy cooperatives
 - Beneficial form of energy generation?
 - Rather community-based approach to energy development

The German Energy Transition



Characteristics of energy cooperatives

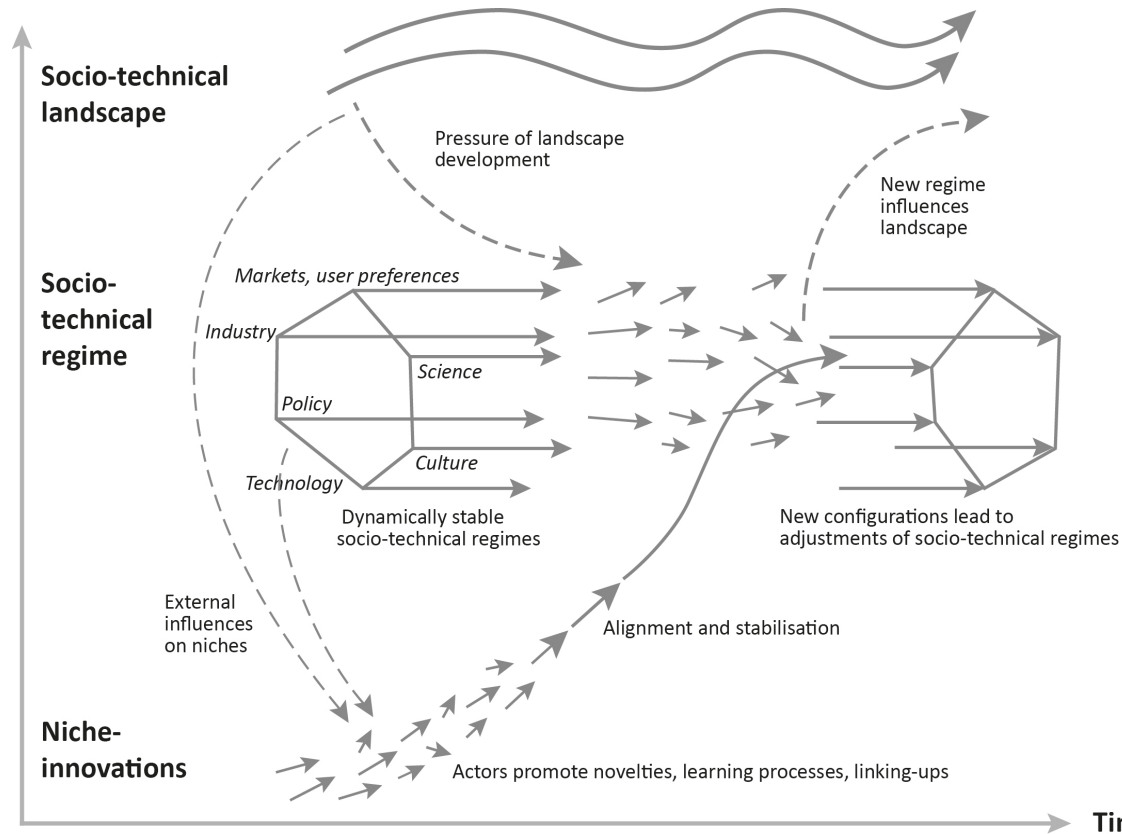
- ▶ 1) **democratic** → all members of a cooperative have one vote independently of their financial contribution;
- ▶ 2) **open and flexible** → throughout the existence of a cooperative, additional citizens can get engaged and new projects can be initiated;
- ▶ 3) **secure** → each cooperative is required to join a cooperative auditing association, which offers support and consultancy but also regular checks to prevent financial losses.

Scope and objectives

- ▶ Overall aim: to investigate processes towards RE in rural areas by paying particular attention to the role of energy cooperatives
 - Do energy cooperatives provide **favourable structures** for initialising transition processes in rural areas and involving relevant stakeholders?
 - **Role of frontrunners** in development of RE
 - Do energy cooperatives evoke **changes in (environmental) behaviour** among their members?

The Multi-level Perspective (MLP)

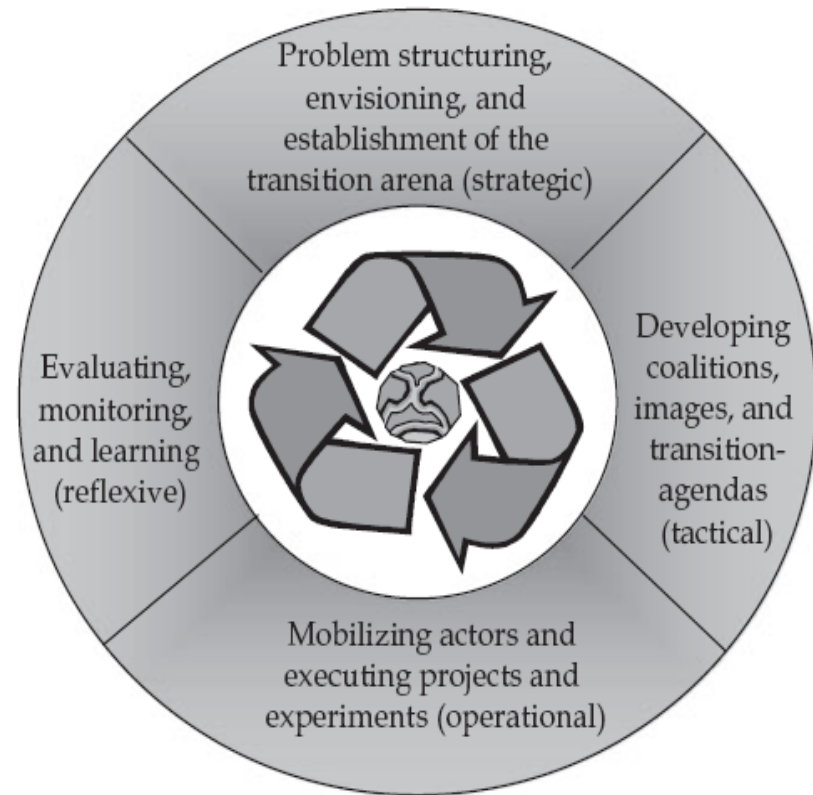
Source:
adapted from
Geels (2011)



Assumption: energy cooperatives as a part of niche activities towards the implementation of renewable energies challenging the mostly fossil-based energy regime at regional and national level

Transition Management

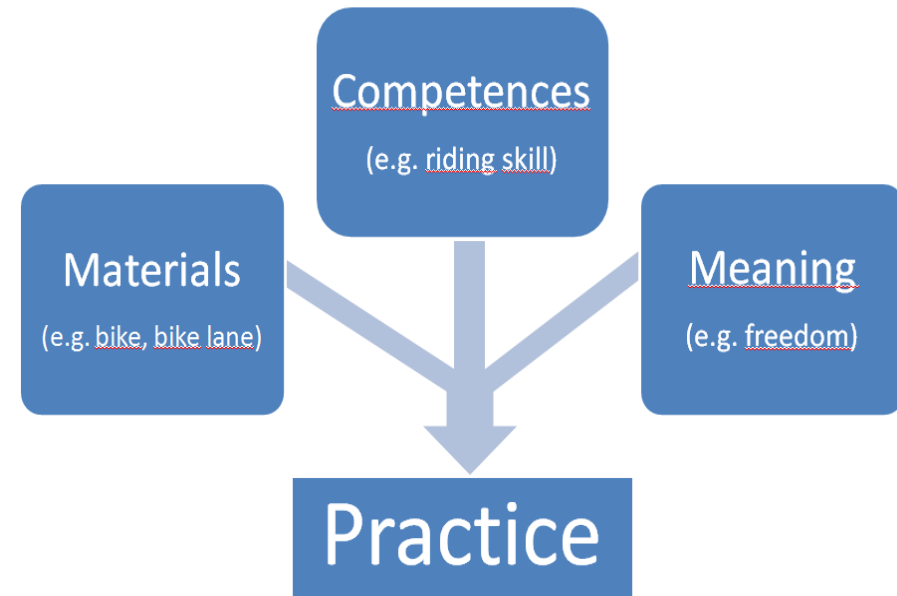
- ▶ TM stipulates a **normative** decision and a prescriptive governance approach
- ▶ Aim: to mobilise, guide, and accelerate **social innovation**
- ▶ Builds upon **governance and complex system theory**, practical experiences and **experiments**



Source: Loorbach (2007)

Practice Theory

- ▶ Challenges the assumption that rational individuals take conscious consumption decisions based on their attitudes and values
- ▶ Practices as the central unit of analysis
- ▶ Example: people do not desire a car, but strive to go to work in a convenient, safe and private way



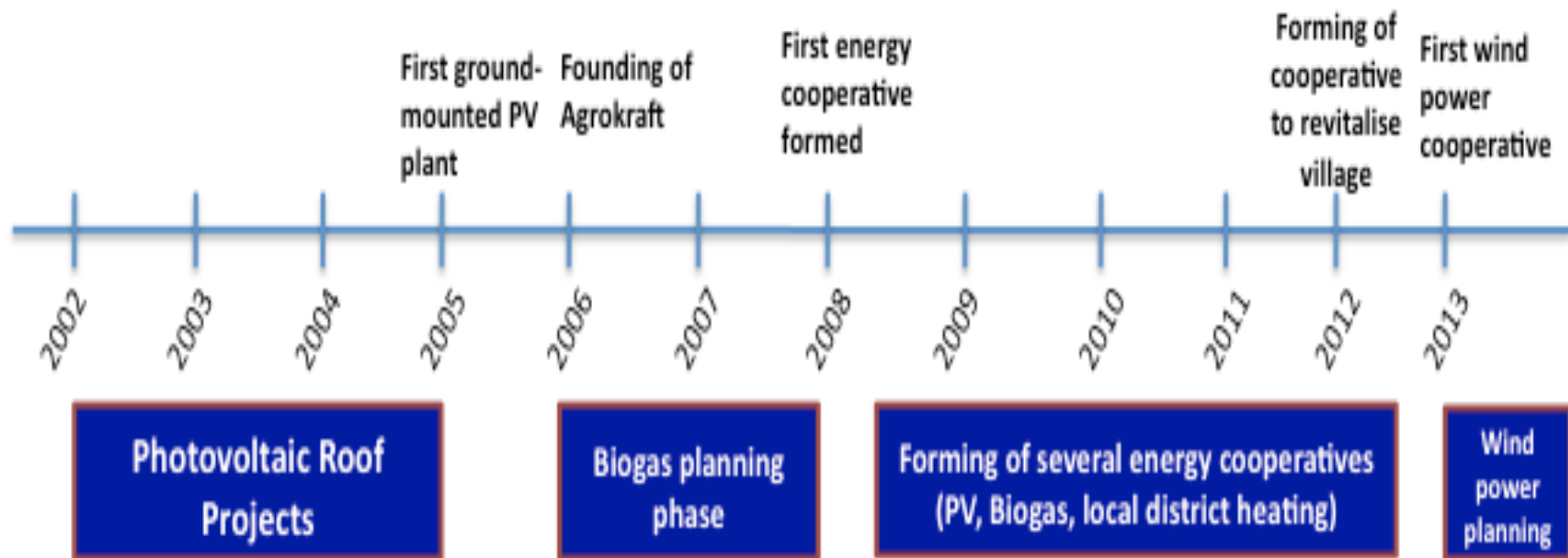
Source: Shove et al., 2012

Methodological approach

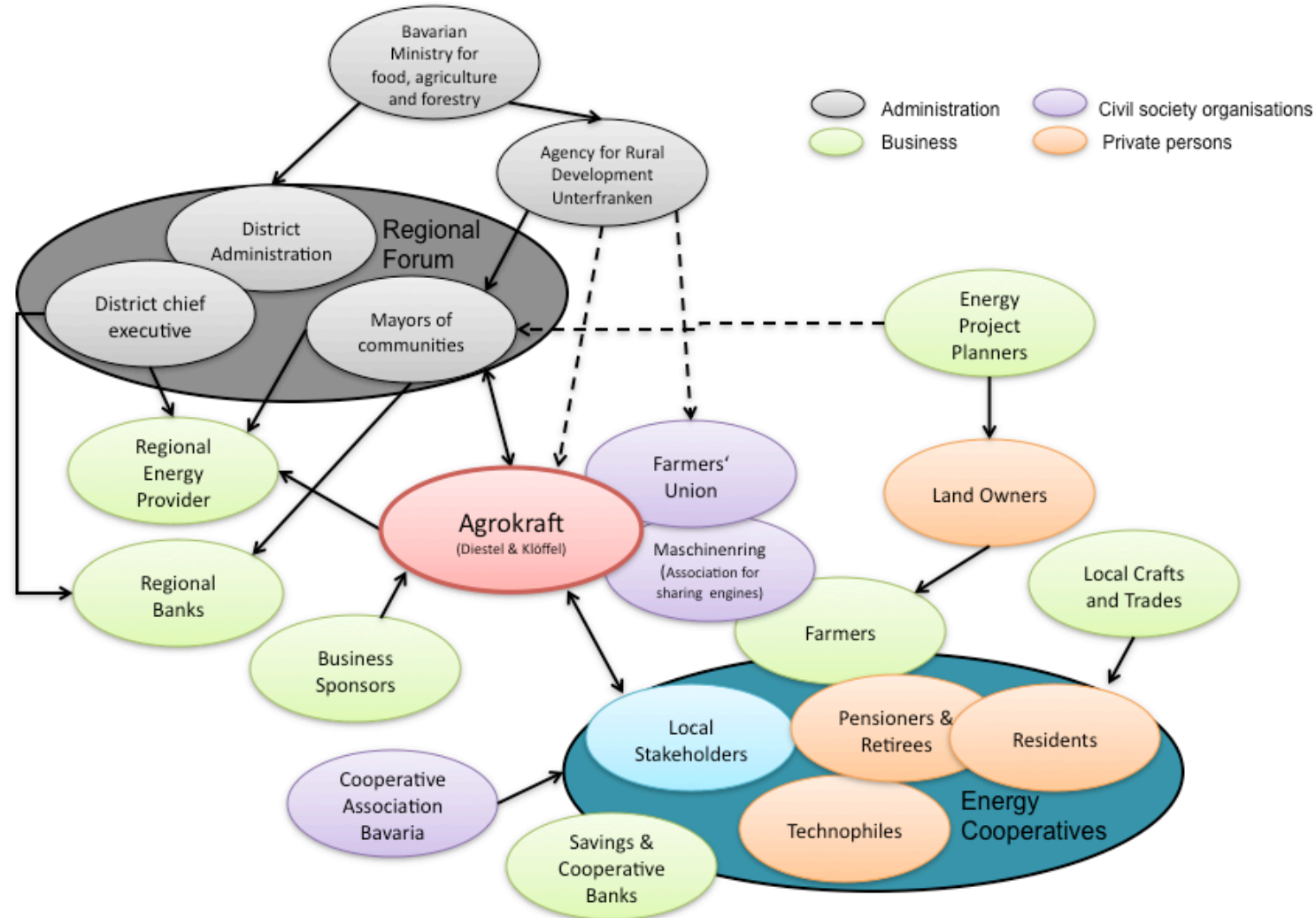
- ▶ **Case study** in Northern Bavaria
 - Two site visits at the district of Rhön-Grabfeld, interviews with key actors
 - Participatory Network Analysis
 - Online questionnaire sent to the members of cooperatives

- ▶ Additional information from two other case studies based on a **literature review**
 - Island of Samsø, Denmark
 - Som Energia project in Spain

RE development in Rhön-Grabfeld



Network of actors

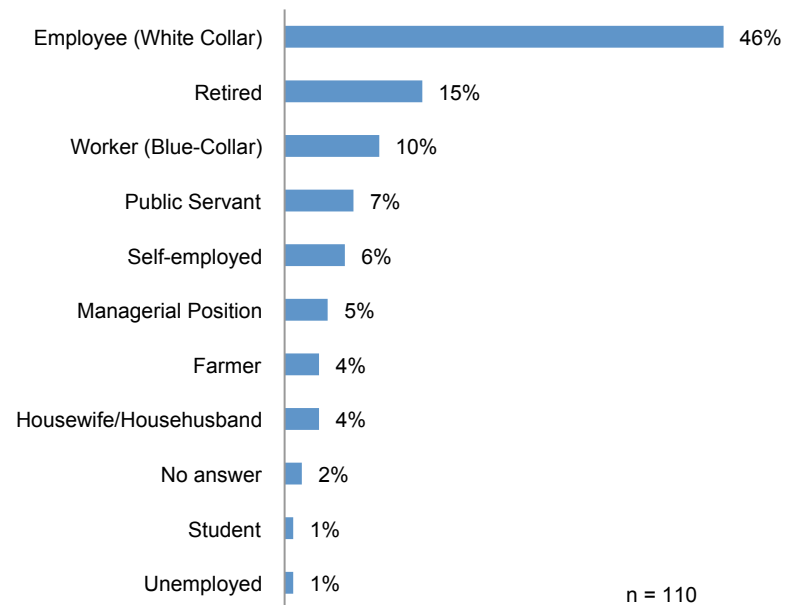
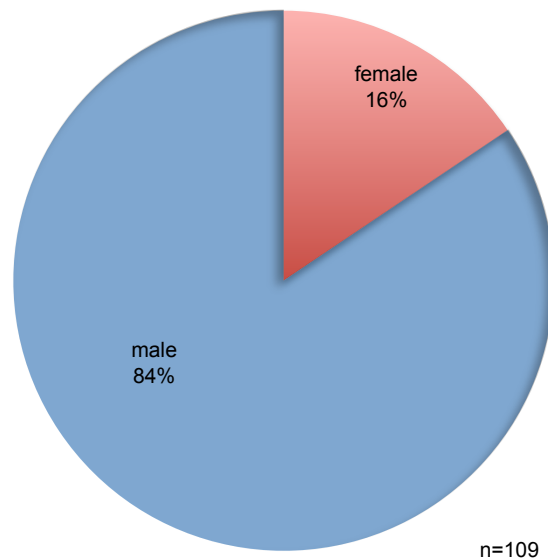


Key findings of Bavarian case study

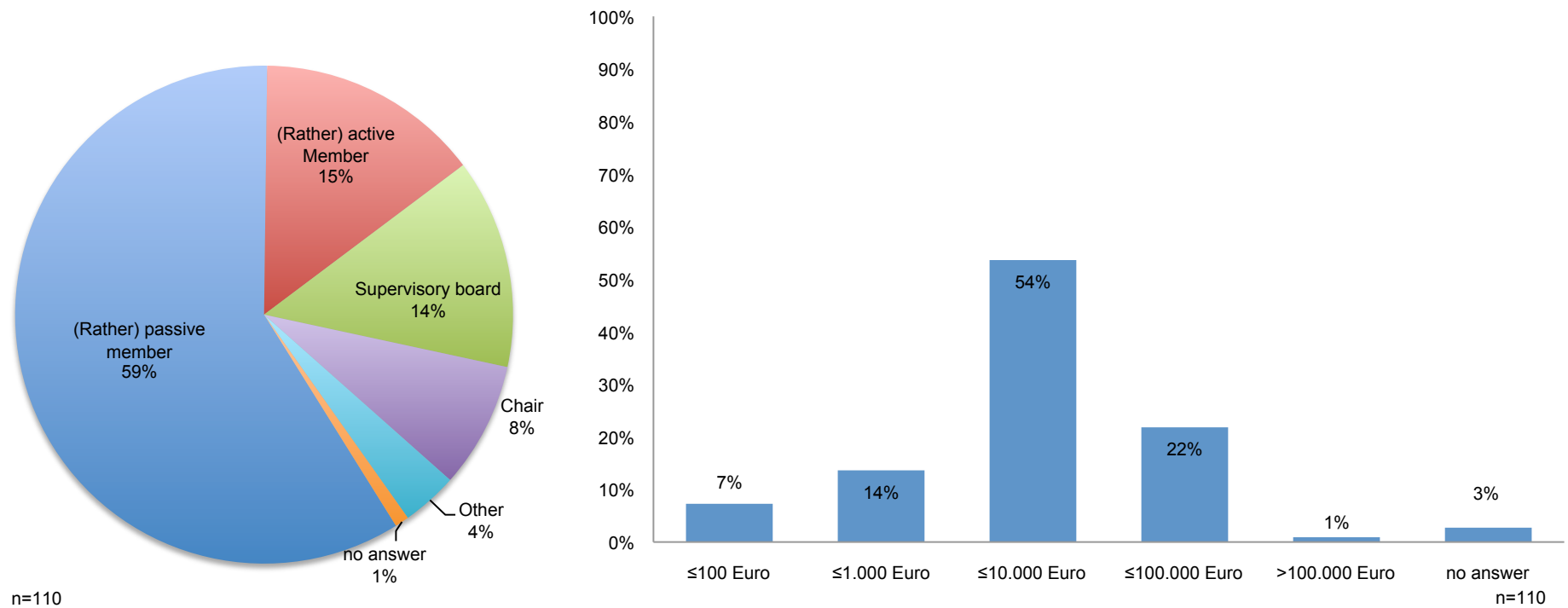
Beneficial factors for promoting RE in rural areas:

- ▶ **Legal framework** favouring renewable energies over fossil energies, enabling a secure investment environment
- ▶ **Funding** to support initial activities that do not yet generate income
- ▶ **Frontrunners** deeply rooted in the region and of high reputation among population
- ▶ Established **networks** of actors and stakeholders
- ▶ General attitude and **willingness towards change** among at least some parts of the population
- ▶ A simple, convincing and **highly inclusive concept**
- ▶ Spaces and capacities for **open dialogues**

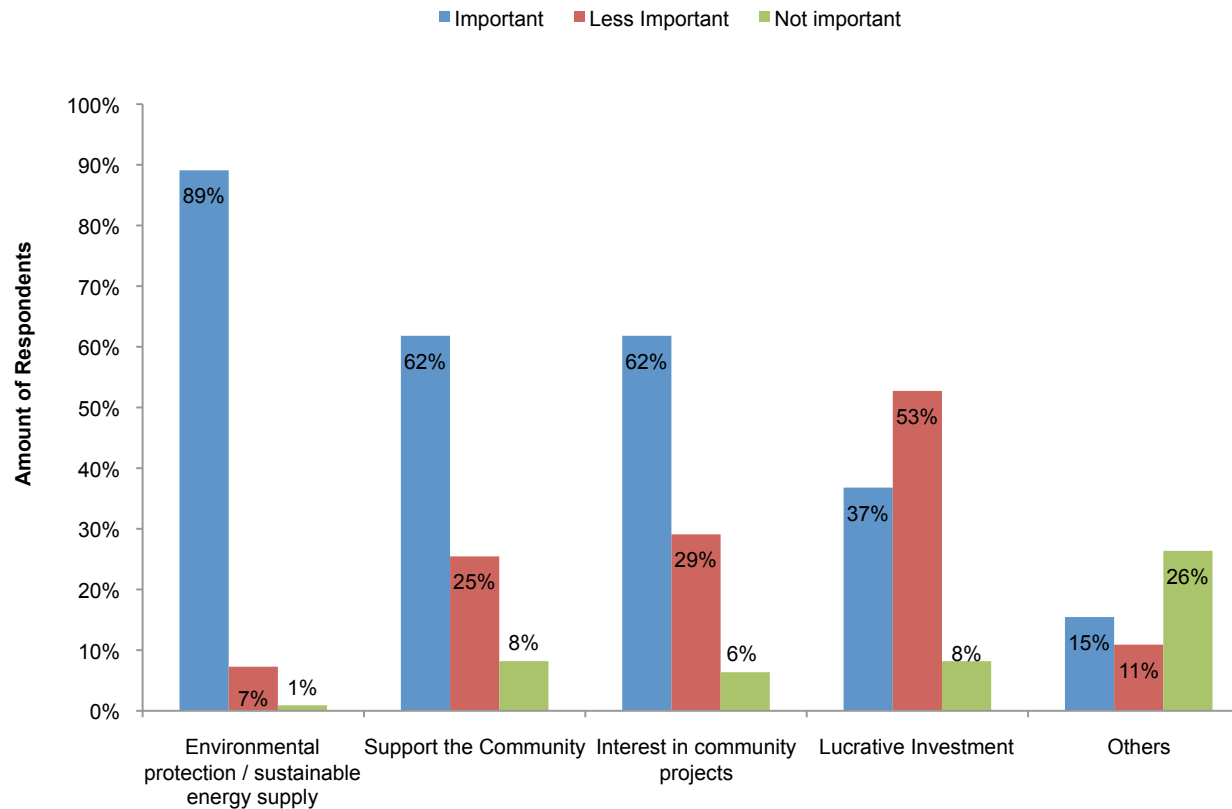
Behavioural change in rural energy transition



Position of respondents and money invested

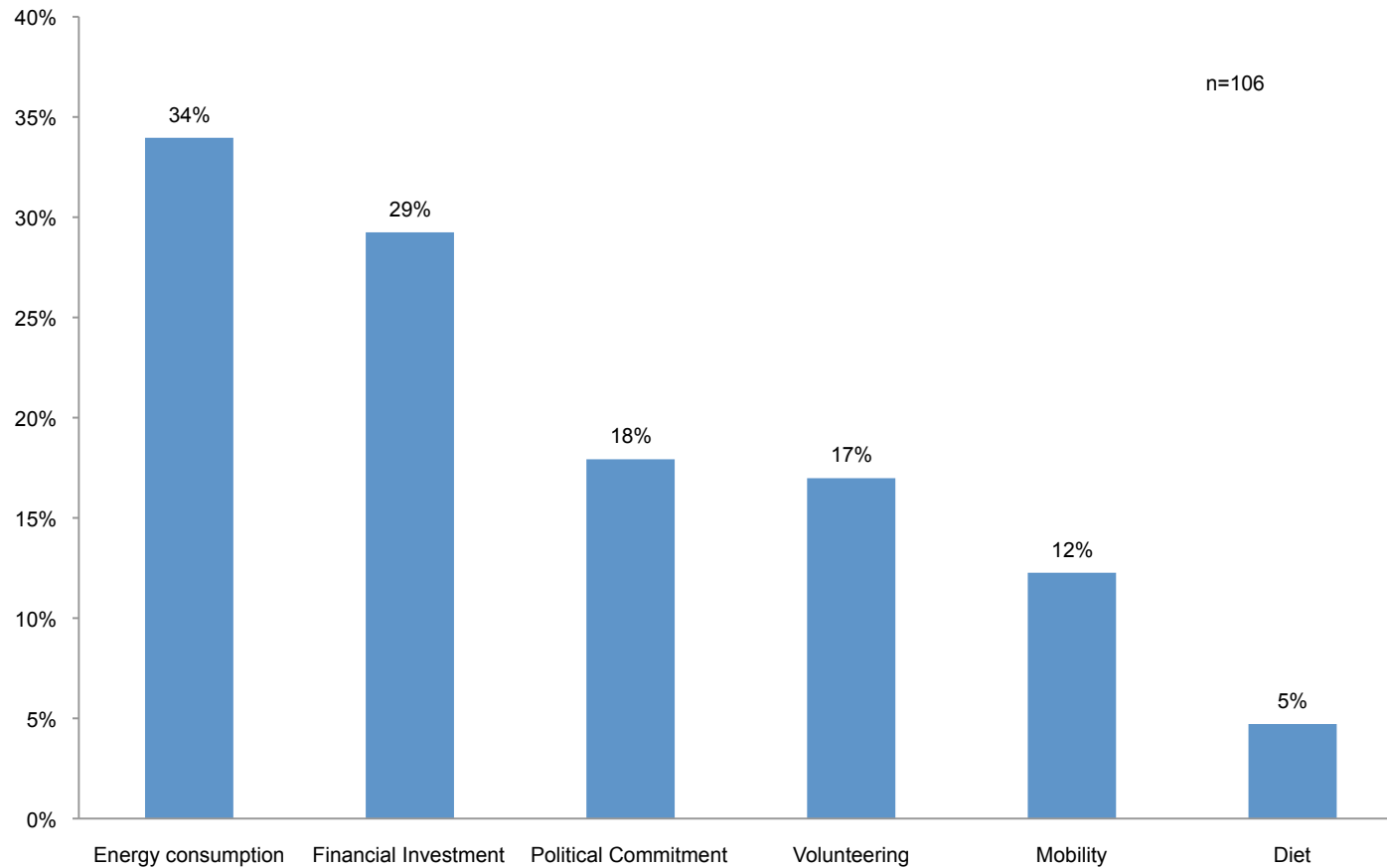


Motivation for joining energy cooperative



n=110; the remaining percentage to 100% is due to respondents giving no answer

Fields of behavioural change



Energy cooperatives and behavioural change

- ▶ Commitment and participation had an effect on the awareness and behaviour of the people involved in energy cooperatives
 - Mainly **altruistic motives** rather than profit-driven motivations to become a member of an energy cooperative.
 - There is a notable **male dominance** in energy transition in rural areas.
 - For every field of behaviour at least **two thirds of the respondents did not perceive an effect on behaviour**
 - The most relevant behavioural change occurred in energy consumption and financial investments (“**proximity**” argument).
- ▶ Some caveats:
 - Perception bias?: Man and older people tend to notice more behavioural changes
 - Behavioural changes might be influenced by other factors or other people
- ▶ PT: Energy cooperatives provide
 - Competences (social learning, skill enhancement)
 - Meaning (shared values and visions)
 - Materials (not so clear...)

Conclusions

- ▶ Energy cooperatives
 - Attractive and inclusive vehicle for dynamics towards transition
 - Should gain additional attention in future research on transition at regional scale
 - Should be promoted by governments
- ▶ More research is needed how such networks evolve and which role frontrunners have in this process
- ▶ Rapidly changing energy markets create new opportunities for cooperation between producers and consumers, governments and stakeholders, civil society etc.
- ▶ Results and findings of behavioural changes need more consolidation

Towards an “enabling policy”?

- ▶ **Which policy measures can directly support bottom-up initiatives?**
 - Diminish unnecessary administrative hurdles
 - Provide flexible and less result-based funding opportunities; also enable “process funding”
 - Provide space/forums for exchanging ideas and knowledge between citizens and stakeholders at local level.
 - Value outcomes of forums in decision-making and strengthen the interplay between policy levels (local, regional, national and EU)

THANK YOU!

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