



DECIDE TO PROGRESS
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**Business models of energy communities
and collective actions**

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- Classification of EC/CA and their Business Models
- Main results from the questionnaires
- Views of related projects and initiatives

- Discussion and proposals for action in DECIDE

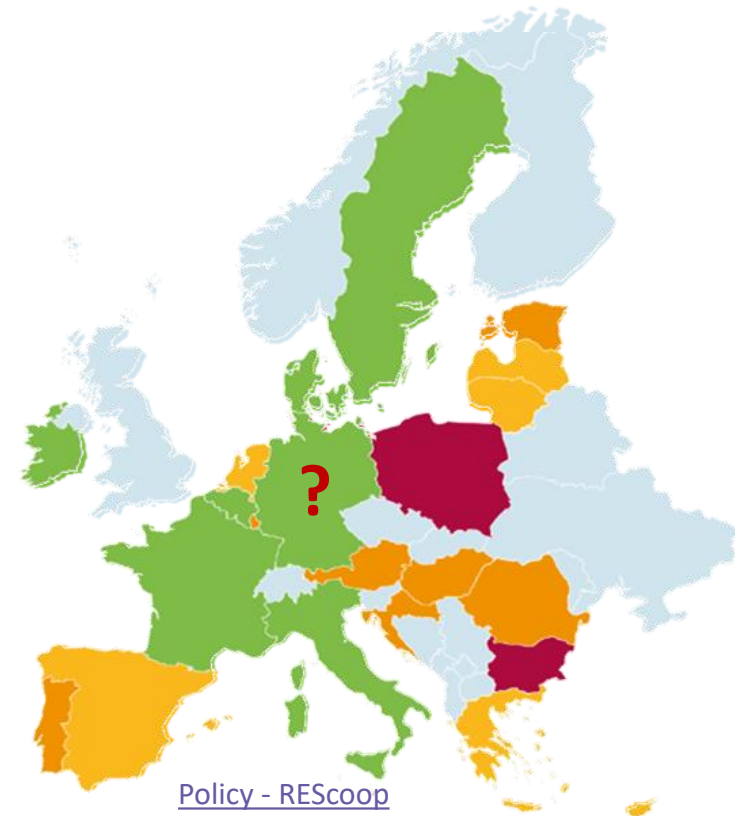
The Situation



Art. 22 of the Directive on the promotion of the use of energy from renewable sources on "Renewable Energy Communities" (EU) 2018/2001 (RED)
national transposition by June 30, 2021



Art. 16 of the Directive on the Internal Market for Electricity Directive on "Citizen Energy Communities" (EU) 2019/944 (EMD)
national transposition by December 31, 2020



- Who wants and who needs Energy Communities?
- Competition with and role of established actors?
- Established systems may be more secure and cheaper ...
- Umbrella organisations as initiators, boosters and safety nets?
- Can ECs and CAs unlock flexibilities?
- Is it possible to implement flexible tariffs for partial self-supply?
- Should we focus more on ECs for heat supply?
- How could we foster CAs in relation to storage?
- What is wrong with (only) business oriented ECs / CA?

DECIDE classification of EC and CA (D 3.2)

class		example / comment
1	Collective generation and trading	e.g. OURPOWER, HIND
2	Collective self consumption (residential)	e.g. TREA, HIND
3	Collective self-consumption (public and commercial)	e.g. OURPOWER
4	Community owned grid	e.g. HIND
5	Collective investment in a community project	e.g. TREA
6	Collective investment in independent energy projects	e.g. HERON
7	Collective service provision a) mobility, b) flexibility, c) DSM, d) energy advice, e) energy efficiency (ESCO)	e.g. ThermoVault, domX, HERON, TREA, HIND, ENBRO
	collective purchasing (energy) ???	

Business Canvasses for EC/CA (see D 3.2)

Value proposition

Economic value
Environmental value
Social value

Key activities include

Collective self-consumption
Energy sharing
Service provision
Collective investment
Awareness raising and education

Key resources

Human capital
Unused space
(Decentralized) technologies

Key partners

Community members
DSOs
Municipalities
Service providers

Customers

Households
SMEs
Commercial entities
→ no restrictions in case of collective actions

Customer relationship

Governance of the community membership
→ also non community customers in case of collective actions

Cost structure

Upfront costs for communities
Technology and ICT costs
Personnel cost for community operation

Revenue streams

Reduction of energy bills
Return on investments
Revenues from flexibility markets
→ No profit restrictions in the case of collective actions

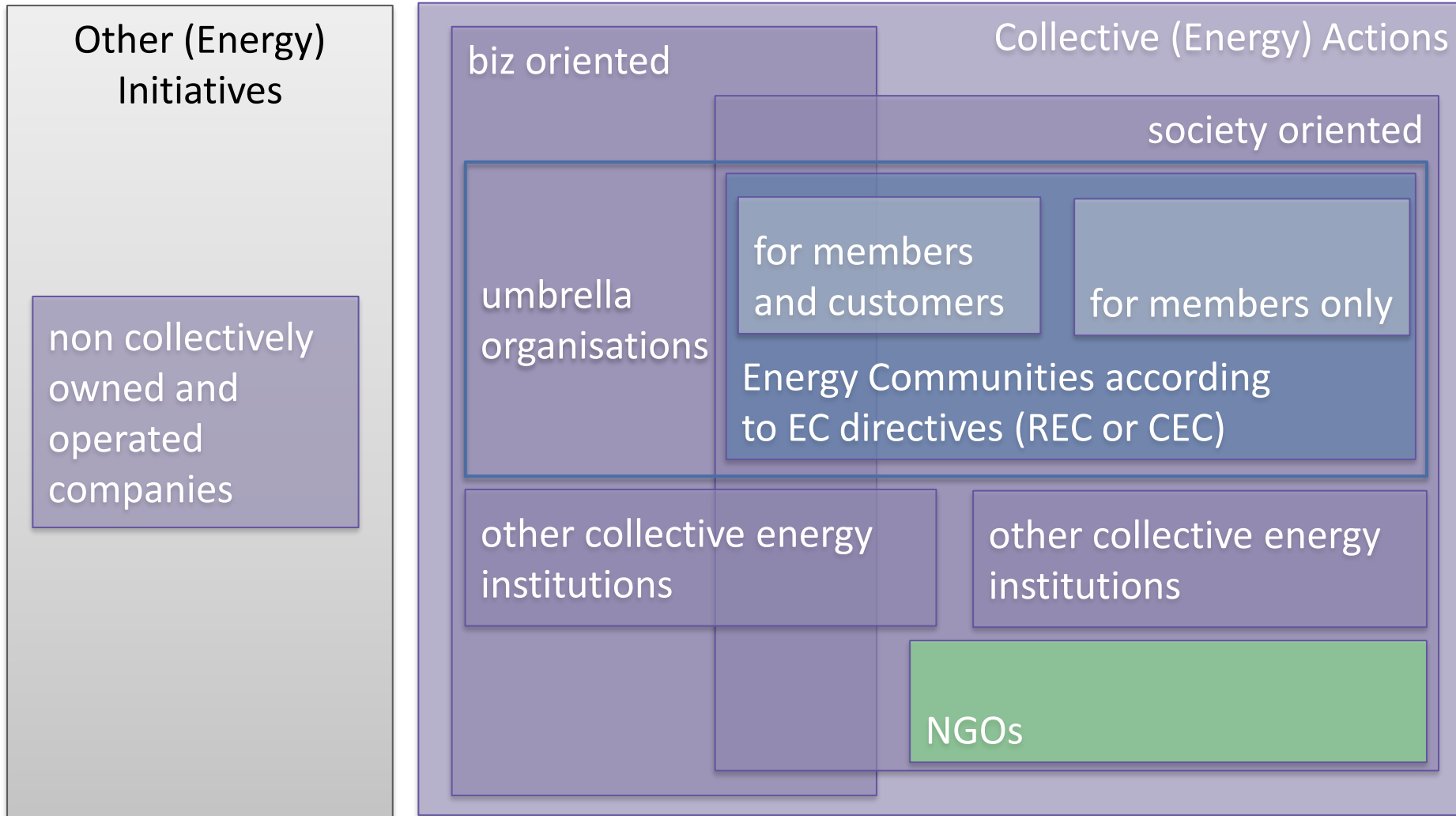
Preferred organisational models

- cooperative?
- Ltd. company with attached limited partnership?
- stock corporation?
- association?
- municipal utility?

Key results from the survey

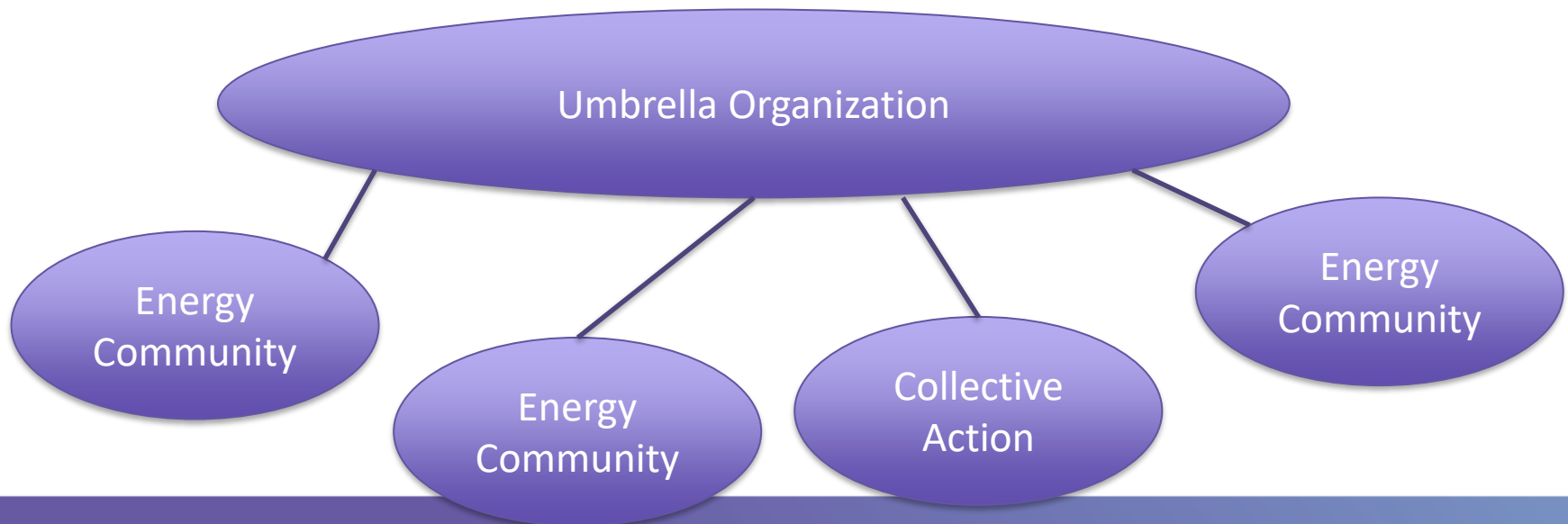
see presentation LR

Types and relation of Energy Communities and Collective Actions



Purpose and role of Umbrella Organisations

- guide through development process
- provide equity in start-up phase
- provide indemnity guarantee to reduce risks
- provide management services



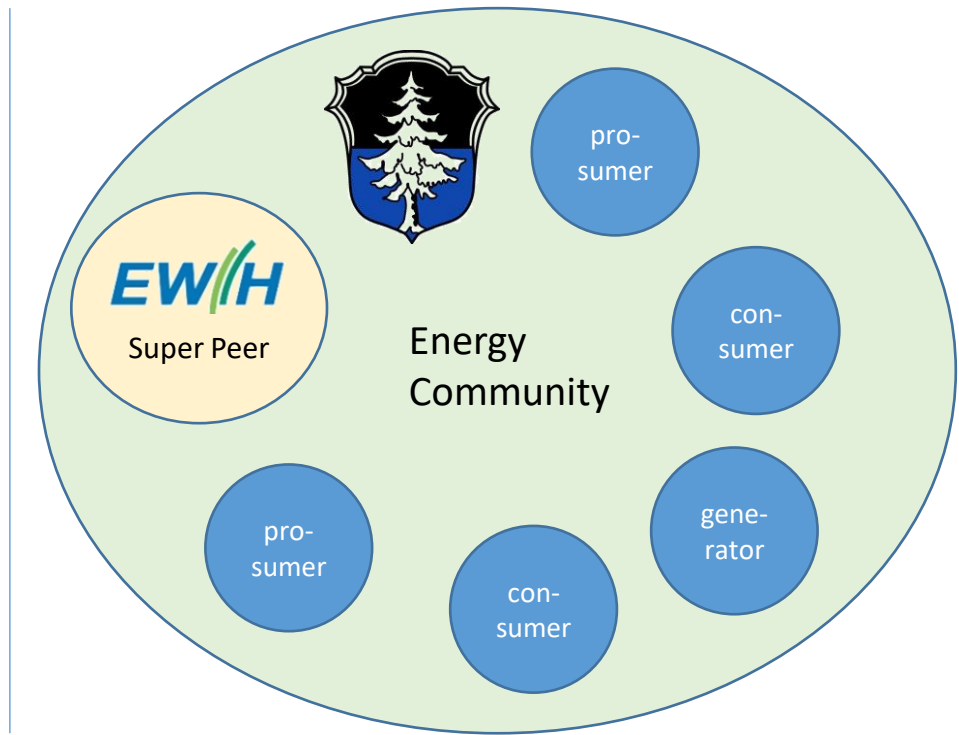
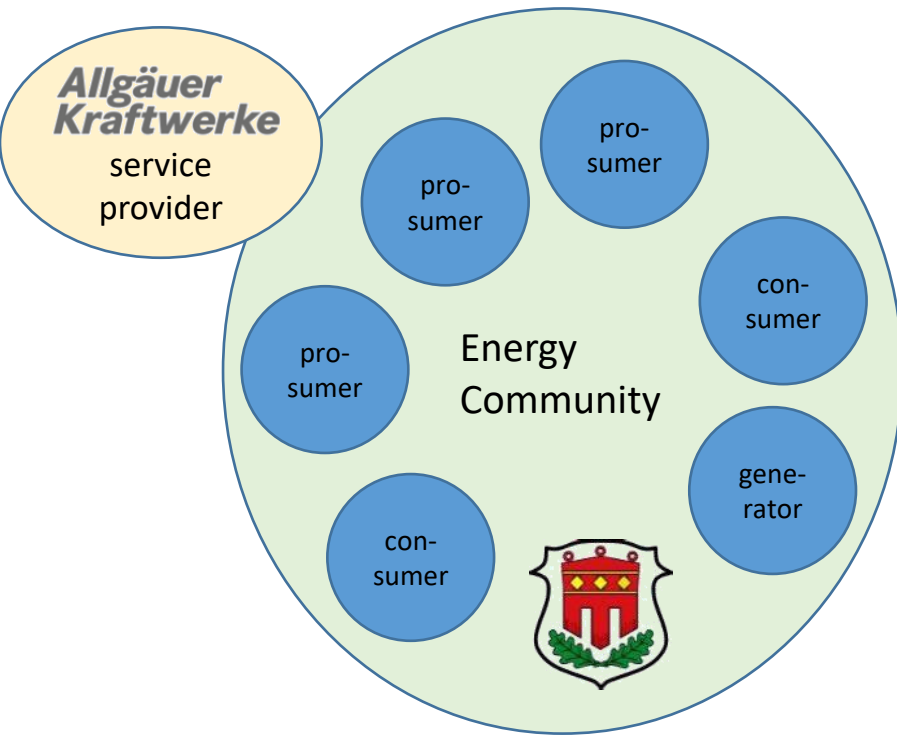
Self-sufficiency?

Autonomy?

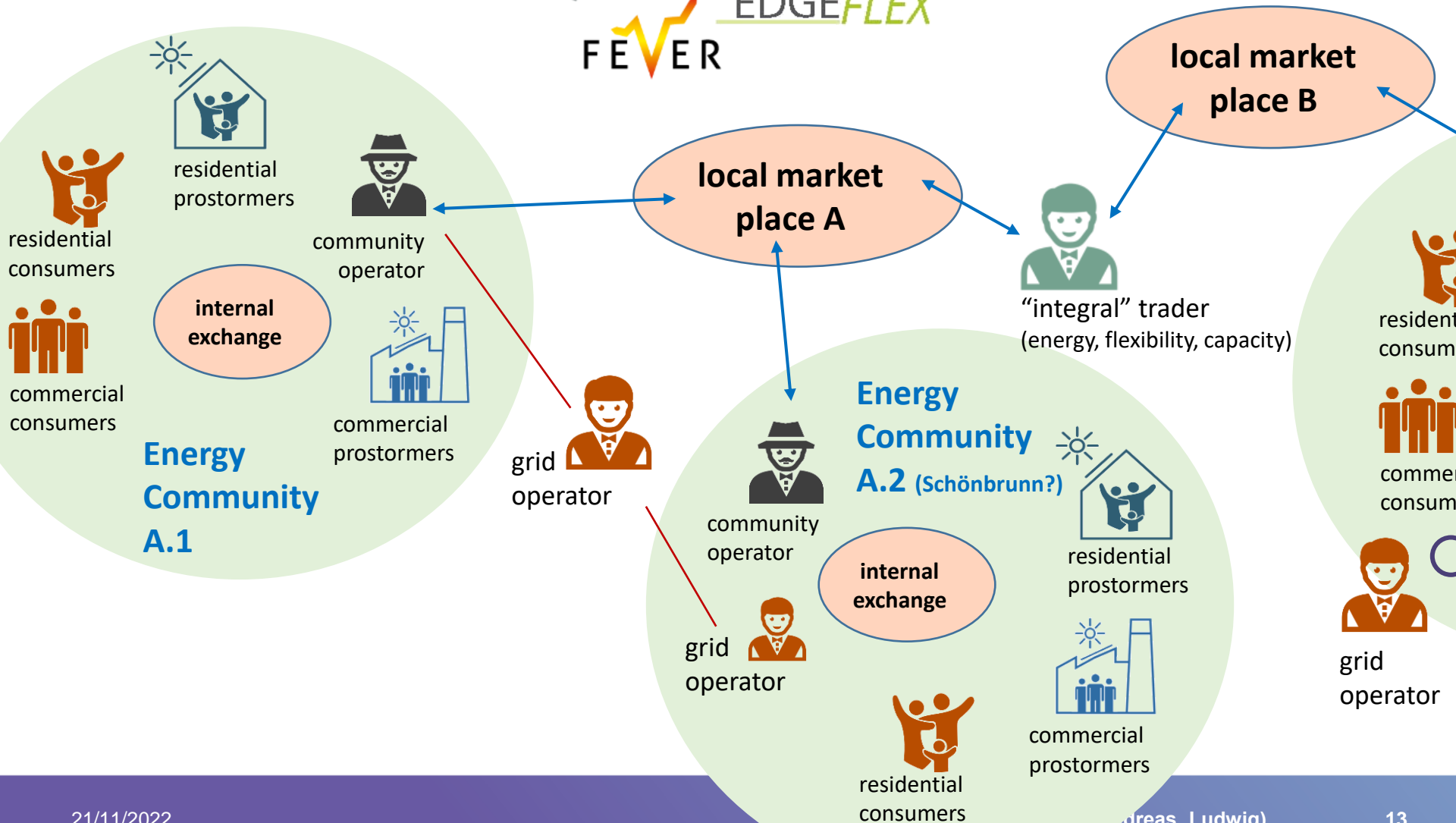
Who will oppose?

- government, since losing levies, taxes, ...
- system responsible parties since losing security of supply ...
- incumbent actors since losing income, power, ...

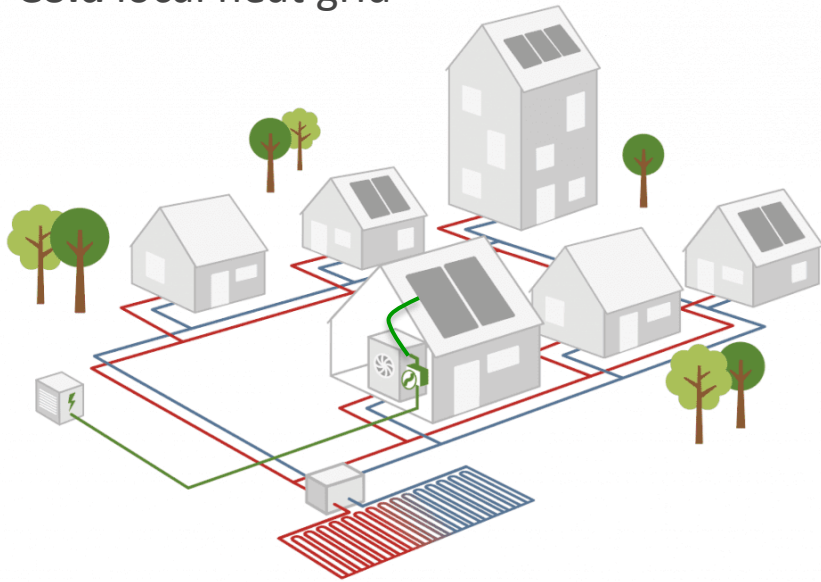
Energy Communities and Incumbents



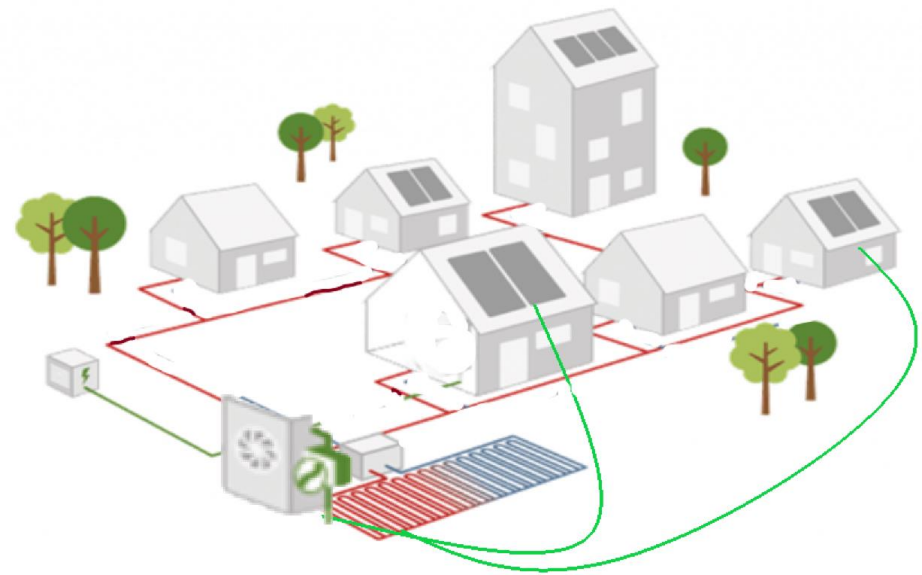
Energy Communities and Local Marketplaces



Cold local heat grid

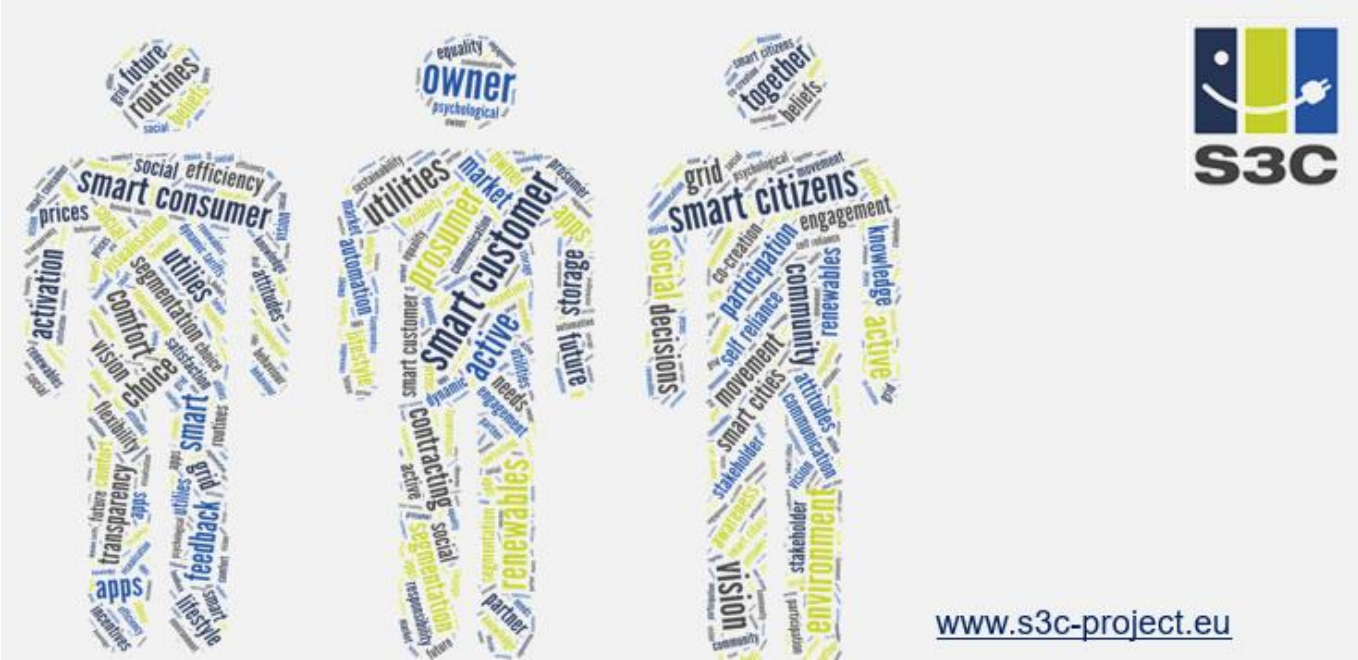


Warm local heat grid with central heat pump



How does the self produced electricity get to the heat pump?

It is about people



Take part in the EU-wide stakeholder mapping:
<https://s2survey.net/stakeholder/>

Emerging business models and their benefits and barriers

	potential?	barriers?
extending existing generation to generation-consumption collectives		
cooperative controlled charging of EVs (incl. flexibility provision V2G)		
collective heat supply with heat pumps		
collective investment in big storage (with/for grid operator)		
collective provision of flexibility with cooling systems		
???		
???		
???		
???		
???		

Recommendations for business model development and regulation

1. Do not limit the concept to mere energy sharing and collective self-consumption of electricity.
2. Concentrate on energy communities that foster renewable heat and cool supply.
3. Dare to be ambitious to maximize the potential and adequately differentiate between types.
4. Allow existing, community-oriented actors to play a role in the development of energy communities.
5. Specify principles of ‘autonomy’, ‘effective control’ and “social responsibility” to avoid elite-capture.
6. Define concept of ‘locality’ for collective self-consumption and energy sharing in line with grid topology.
7. Put in place participation mechanisms for energy poor and vulnerable households.
8. Consider the value that CEC and REC can provide to the public network.
9. Foster energy communities that increase resilience, not the least for energy dependent enterprises.
10. Allow for tariffs that remunerate contributions and create a feeling of ownership.