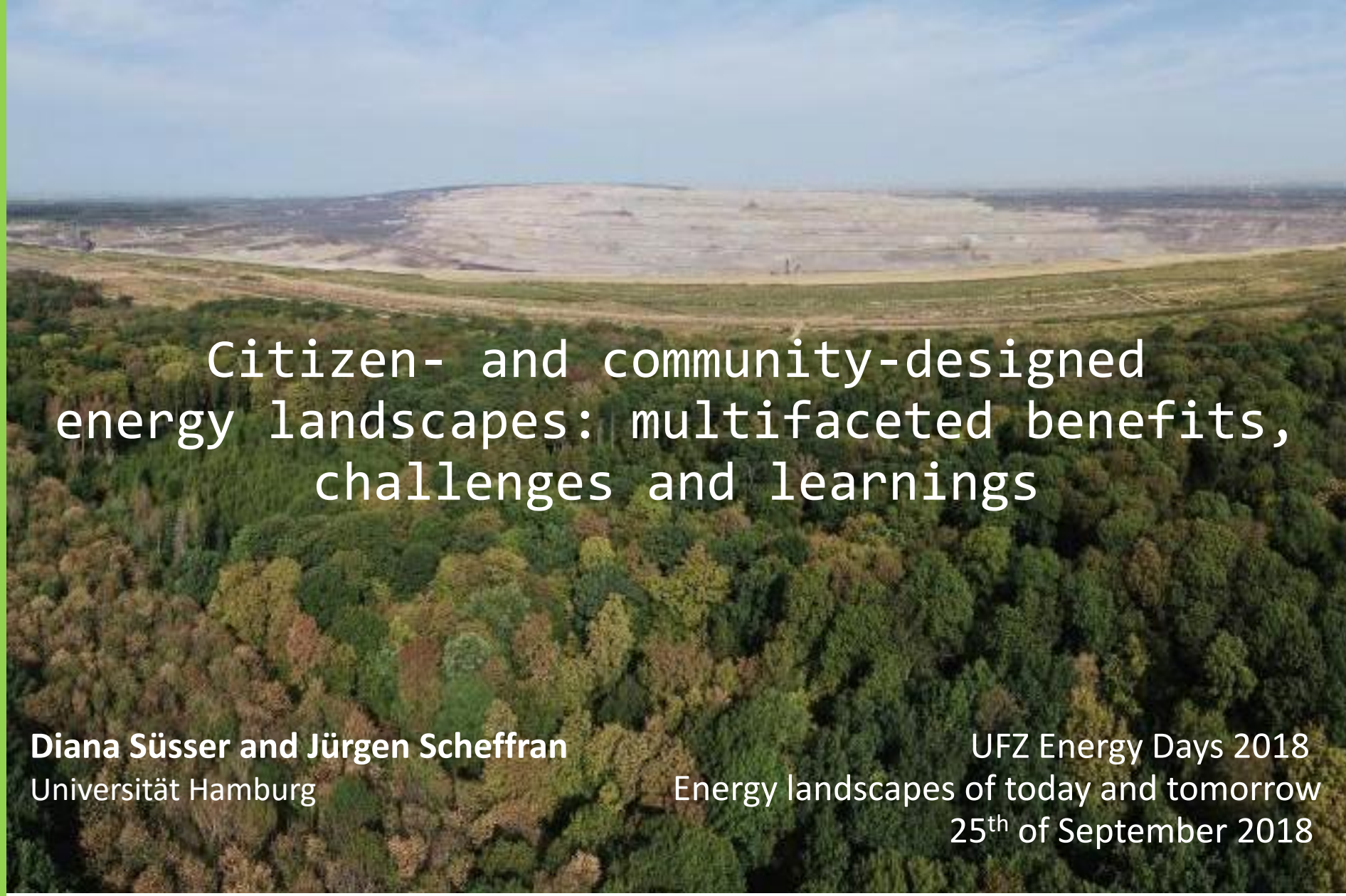

Citizen- and community-designed energy landscapes: multifaceted benefits, challenges and learnings

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UFZ Energy Days 2018
Energy landscapes of today and tomorrow
25th of September 2018

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Energy landscapes of today and tomorrow?

Transformation towards a sustainable and renewable energy system is necessary.

But it leads to changes in communities and creates new energy landscapes which are not per se accepted.

It's time for a
'yes, in my backyard' perspective

Understanding an ecological and social compatible and beneficial community-based energy transition

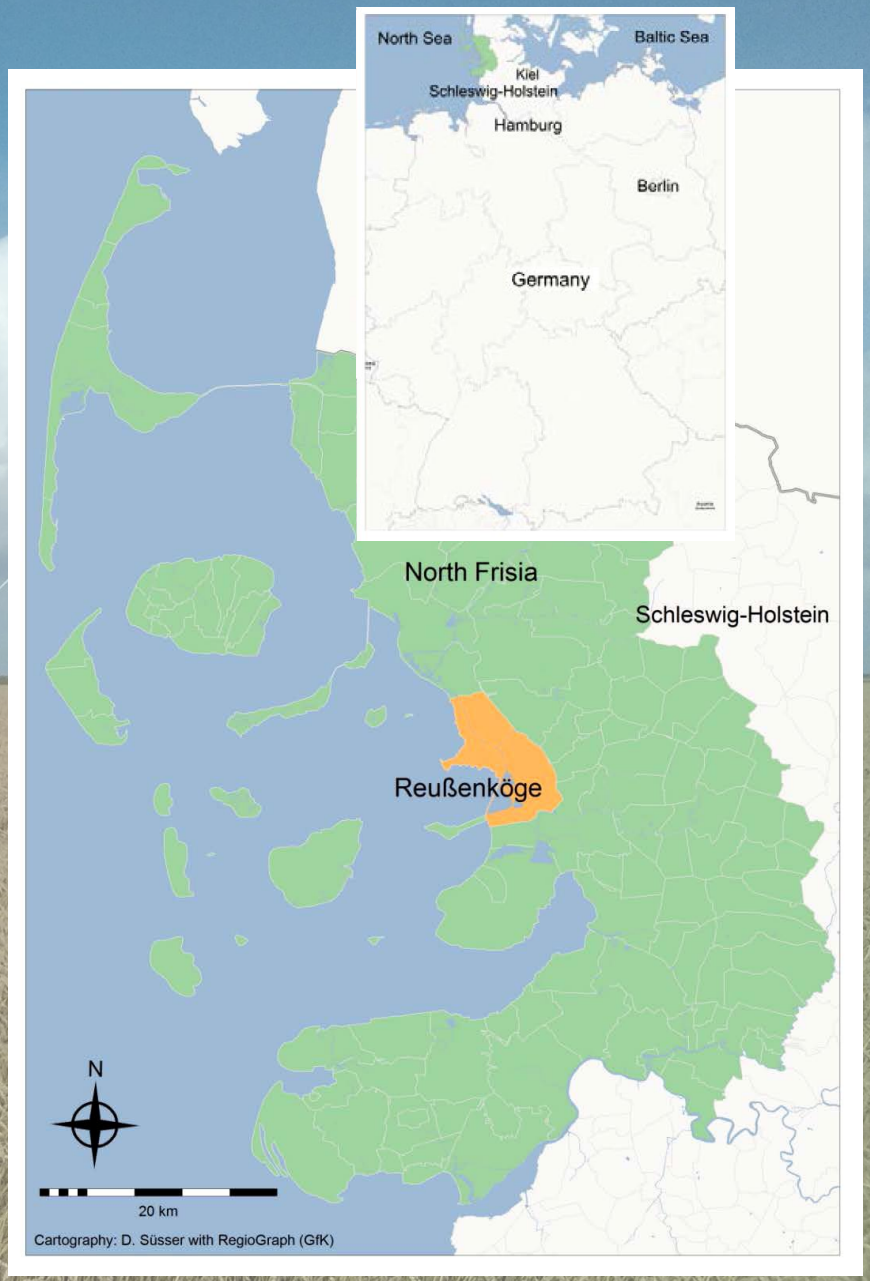
- high societal and political relevance of citizen-designed and community-based renewable energy systems
- actual interwoven community benefits and challenges of renewable-energy projects are not well understood yet

→ move from *potential* community benefits to *experienced* benefits and challenges, and their trade offs

Research questions:
How do and can citizens actively design the energy transition? How does this transition transform rural communities and landscapes?

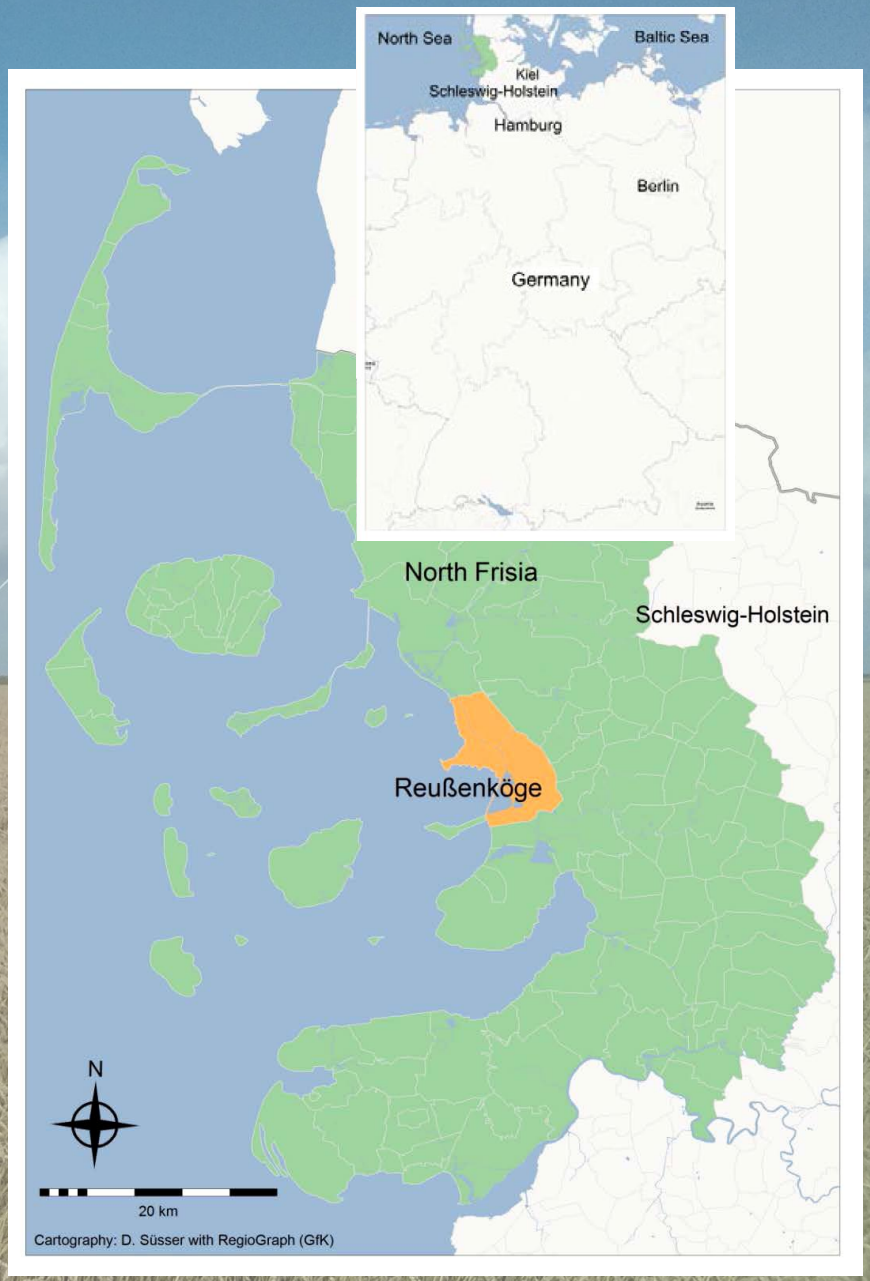
Case Study of North Frisia (Germany)

From *agri*culturalists to *energy*-culturalists



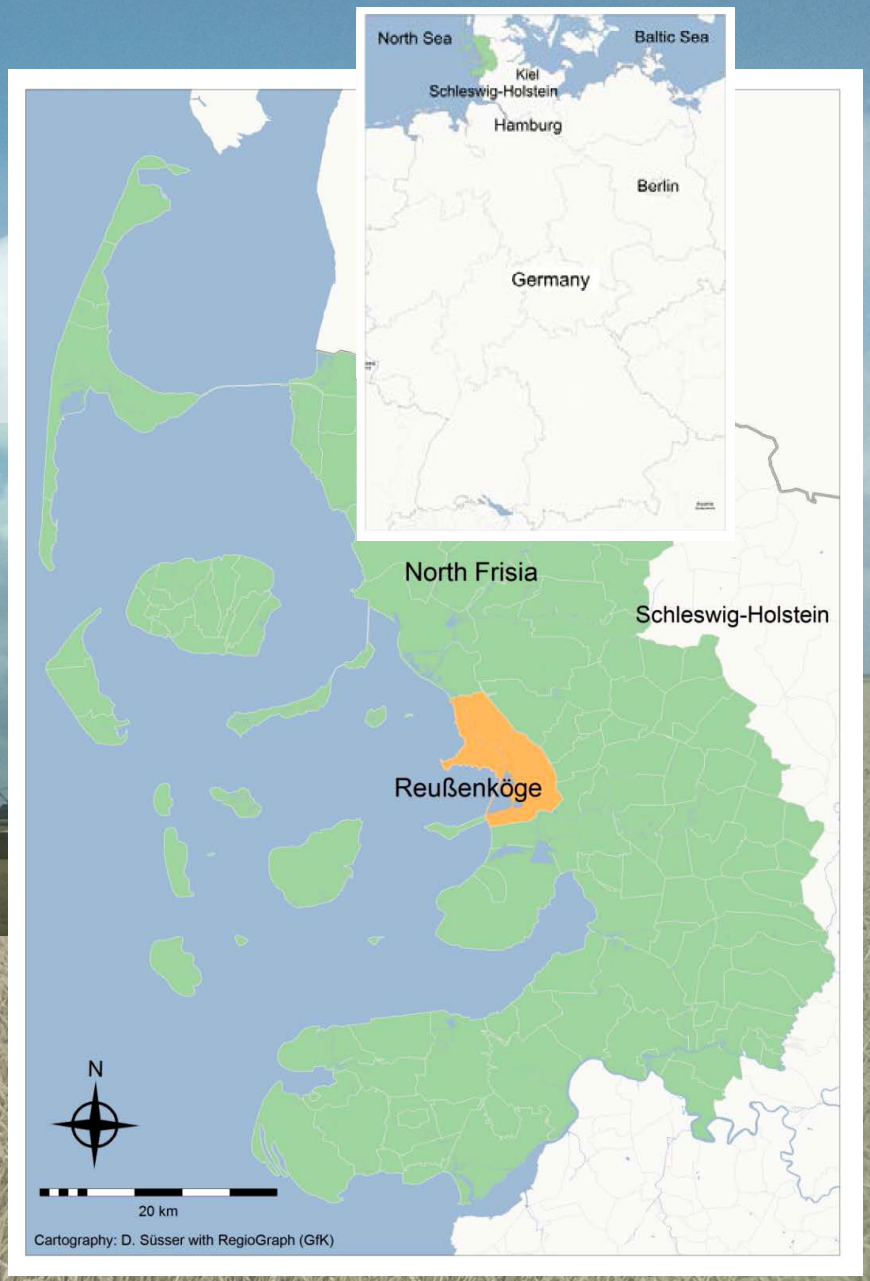
Case Study of North Frisia (Germany)

Outstanding district for renewable energy development



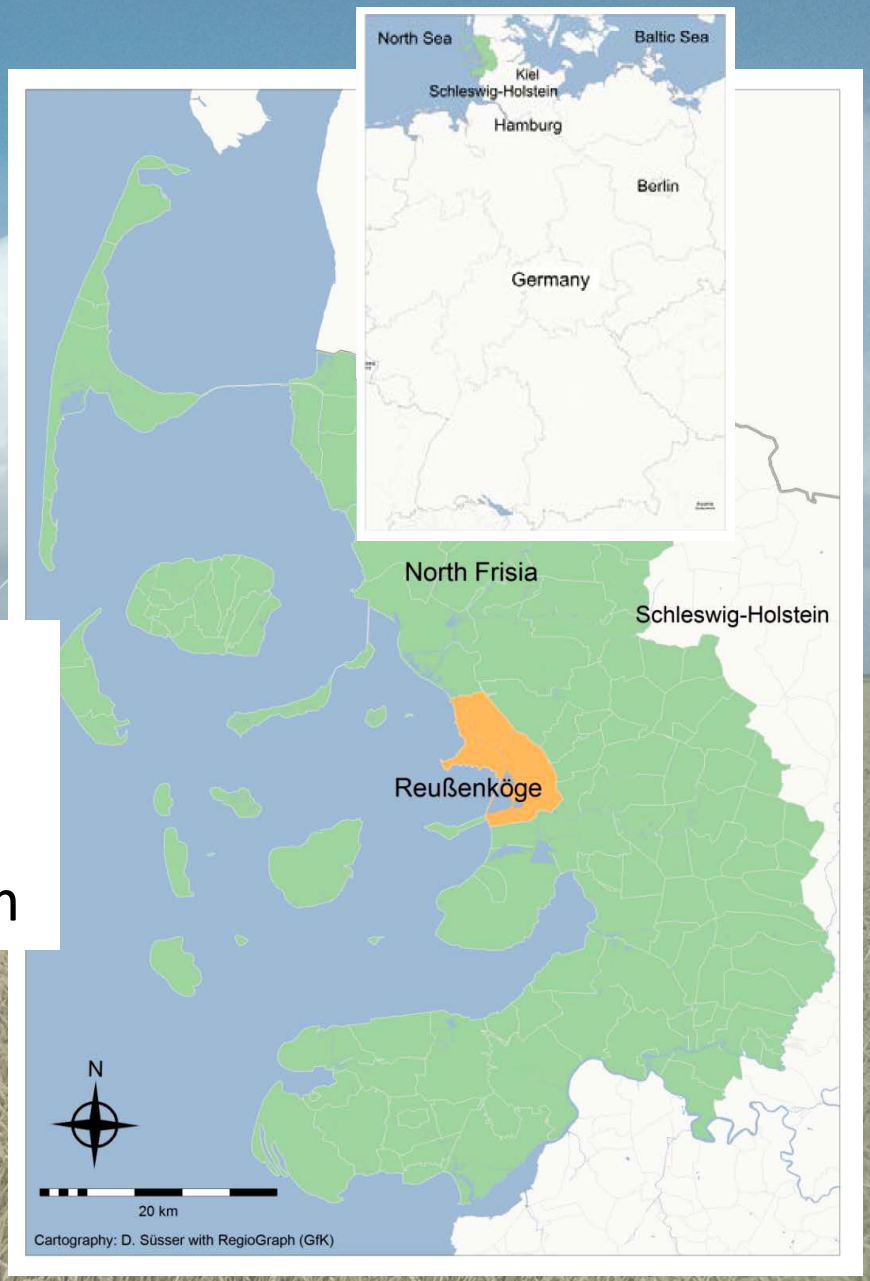
Case Study of North Frisia (Germany)

Show case for a community-based energy transition



Methodology

- regional literature analysis
- two sets of interviews in municipalities of North Frisia
- a household survey in one of them



Conceptualising energy landscapes: Community renewables and community transition

Regional and local energy landscapes

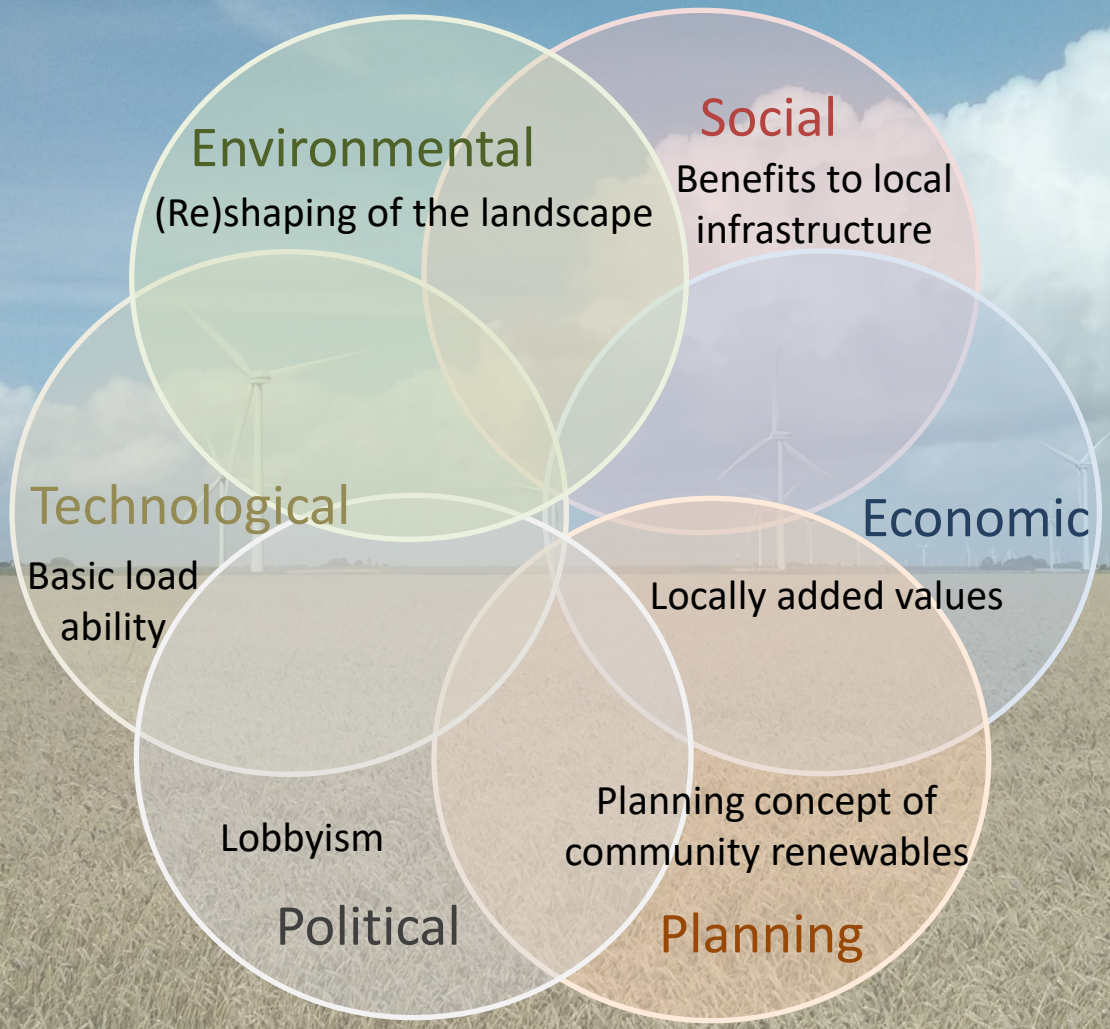
- …implies the investigation of regional pattern of locally anchored, social activities of the energy generation
- …are regionally physically and socially defined and (re)shaped by citizens and communities through the implementation of renewables
- …in turn, affect and define citizens by the outcome of the development of community-based renewables

Findings: Key success factors for citizen- und community-designed energy landscapes

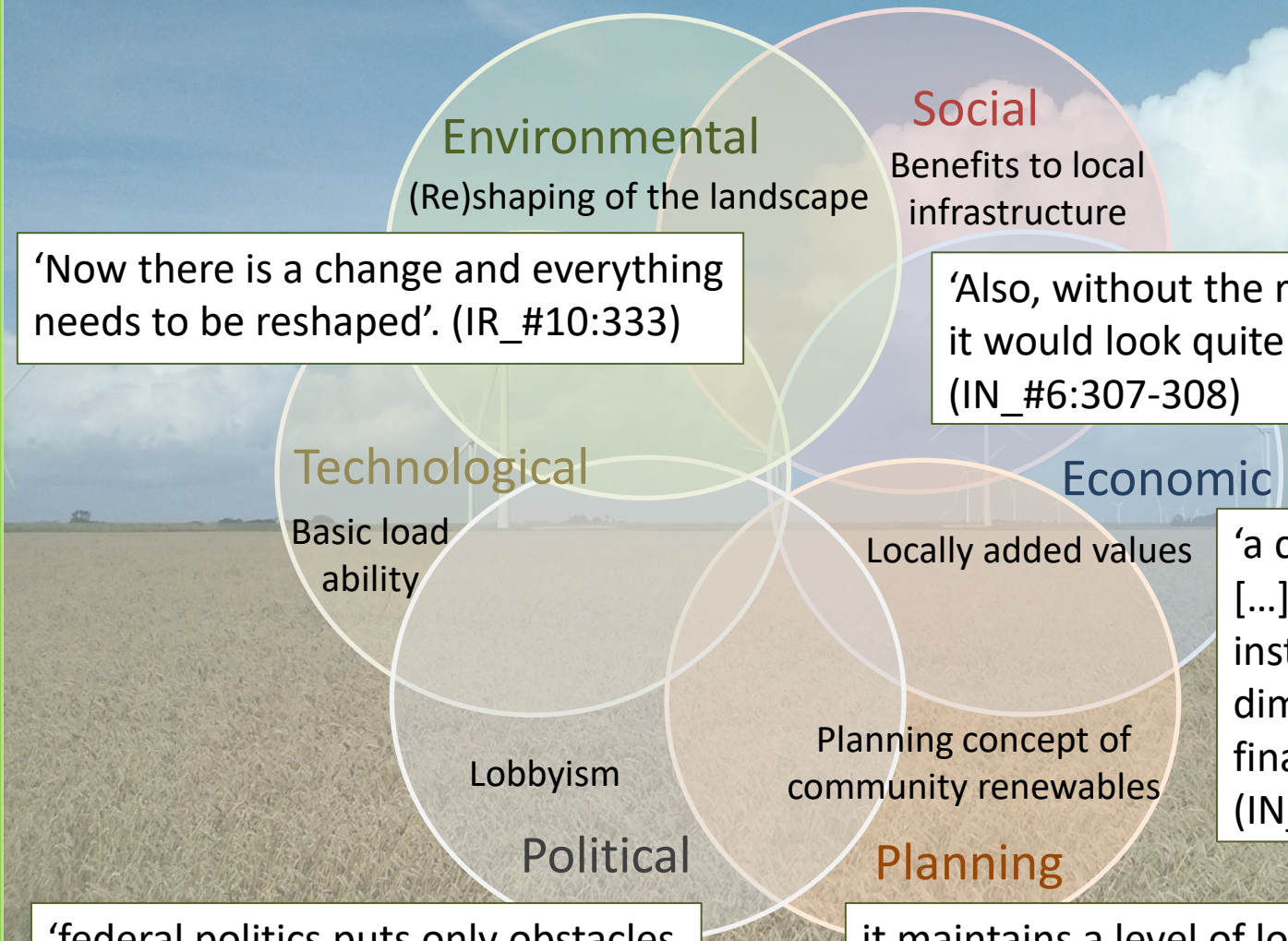
- locally **trusted people** initiate and control the development
- **supportive and informed local authorities** (capacities)
- **localised and participatory development process**: beyond financial participation! e.g. sites, height of turbines
- **opportunities for local ownership**: open participation rounds
- **fair share** of profits to individuals and the community as whole
- opportunities of local **entrepreneurship**

-> locally grounded energy transition implemented by, in and for local places and communities

Findings: Community renewable energy has different facets, which benefit or challenge the communal life



Findings: Community renewable energy has different facets, which benefit or challenge the communal life



'Now there is a change and everything needs to be reshaped'. (IR_#10:333)

'Also, without the renewable energy it would look quite different here'. (IN_#6:307-308)

'a community wind farm is […] the only demonstrably instrument, which can diminish the threat to the financial future […]'. (IN_#5:107-112)

'federal politics puts only obstacles in the way' (IN_#2:1125)

it maintains a level of local control. You also want to have a say'. (IN_#2:1083-1085)

Findings: Trade-off between benefits and challenges for community renewable energy

Natural environment

Environmental impacts are socially acceptable
but this depends on technologies and community benefits

Social

Community renewables swing between social enhancement and social splitting

Findings: Trade-off between benefits and challenges for community renewable energy

Economy

Economic benefits and challenges emerge at individual, community, regional, and superregional levels; but value lies in decentralisation

Planning

Community benefits need community participation and ownership for creating meaningful acceptance; decentralisation is however in contrast to what energy utilities want

Findings: Trade-off between benefits and challenges for community renewable energy

Clear demand for political priorisation of (smaller) local projects over (larger) projects of external investors in order to create support by local communities and to foster sustainable local development

Lessons learned and implications

- Community-owned and/or—led renewables can provide benefits to individuals, communities, and regions, *if* local involvement and fair allocation of benefits is guaranteed and local needs are acknowledged.
- Multifaceted layers of expected benefits and challenges should be discussed within the local communities and strategies developed to mitigate possible fears and problems.
- Even though community benefits are voluntarily, (external) developers should recognise the values of engaging with local community members and of creating positive outcomes for the whole community.
- Power of community-owned and -led projects for creating environmental, social and economic values deserves considerably increased attention in political decision making, in particular in relation to financial incentive schemes and rural regional development strategies.

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Related publication: Süsser and Kannen (2017): "'Renewables? Yes, please!': perceptions and assessment of community transition induced by renewable-energy projects in North Frisia", Sustainability Science

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