

# Transmission System Expansion in Germany: Role of Municipalities as Bridges for Public Dialogue

Energy Infrastructure: Public Acceptance

Webinar, IEA Experts' Group on R&D Priority-setting and  
Evaluation,

November 24<sup>th</sup> 2020

# Transmission System Expansion: Key to Implementing Germany's *Energiewende*



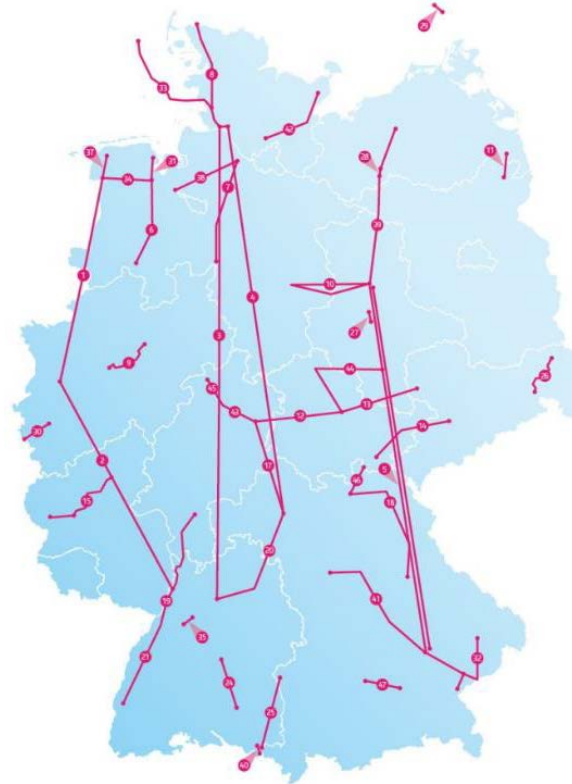
Germany decided in 2011 to plan and implement a new **Energiewende**.

Decisions:

- nuclear power phase-out (2022)
- increasing the share of renewable energy (65% in 2030)

**Focus:** build-up of **wind and solar energy** in Germany

**Key** to implementing the *Energiewende*: **expansion of transmission system** – north to south

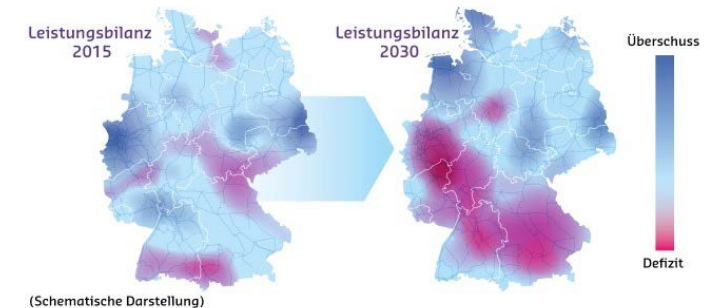


**Progress stalls:**

7700 km of new transmission lines planned, only 1800 km approved or constructed so far

Consequences:

- **increase** of EEG-cost allocation (consumer) and redispatch **costs** (1 billion €)
- **security of supply**



# Transmission System Expansion: national plan, local protests



**national** level: superior **planning** of  
transmission system expansion

key tool: Netzentwicklungsplan (NEP)

**local protests** -> key **issues**

- **overhead transmission lines**
  - health (electromagnetic fields)
  - change of landscapes
  - homes: losses in value
- **underground cable**
  - agriculture
  - soil protection
  - development: municipalities



# Transmission System Expansion: Role of Municipalities



## Role of Municipalities

Municipalities are key actors for success of *Energiewende* – on the local level „plans have a rendezvous with reality“

Public authorities are expected to work on a professional and positive level with transmission system operators and licensing agencies.

At the same time municipalities are the first and key addressee for protest and resistance on the local level.

**dilemma:** issue of national importance – very few control and benefits for local communities



# Research Project: *Dialogbrücken* (Bridges for Dialogue)



## Goals of Research Project

- 1 Scientific analysis: **roles** of **municipalities** in building of public trust / mistrust in projects
- 2 Identification of supporting and inhibiting **factors** which drive **behavior of municipalities in public**
- 3 Give **advice** to **strengthen municipalities** in the complex process of building trust in planning of key *Energiewende* projects

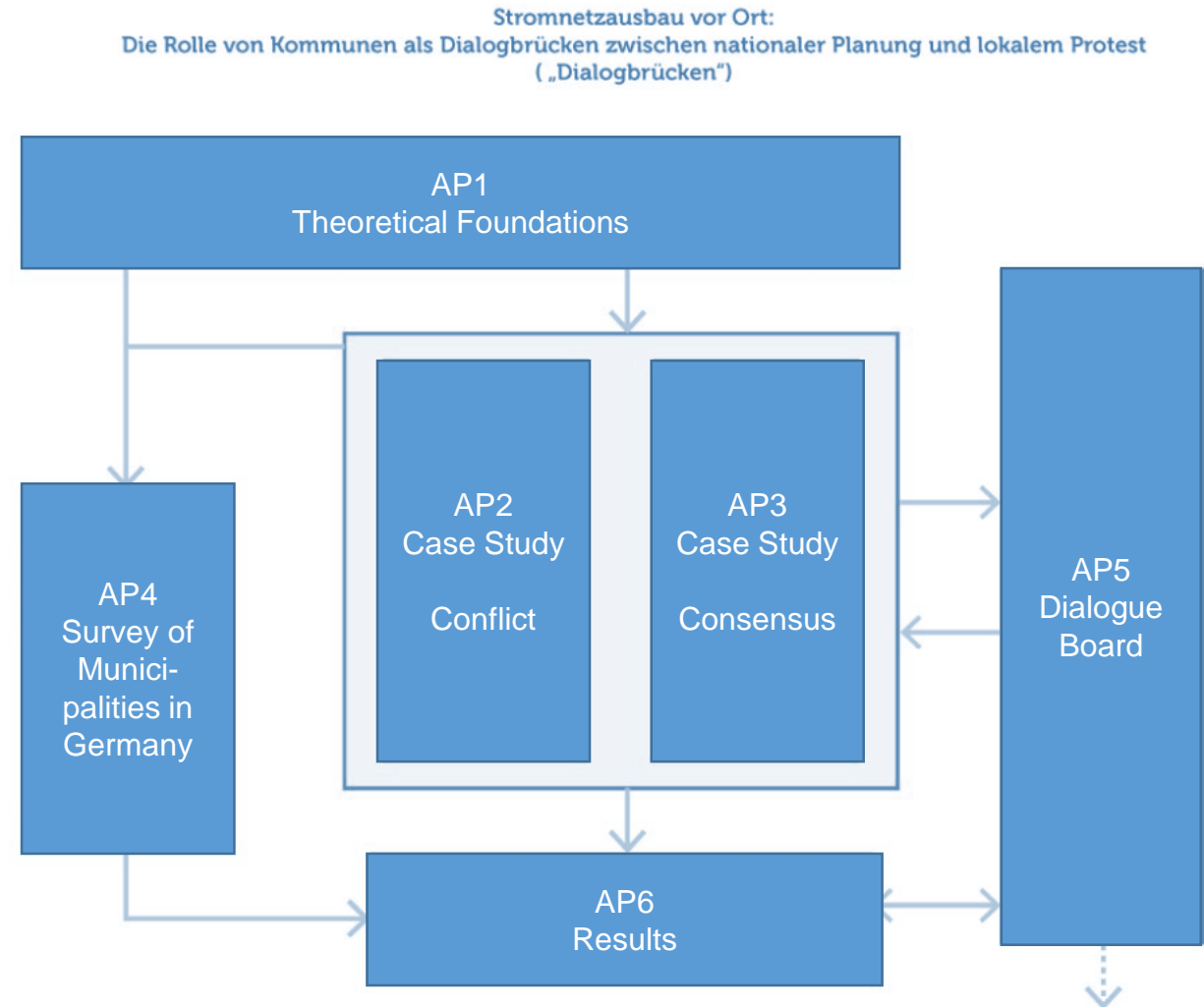
## Partners (selection)



# Research Project: *Dialogbrücken* (Bridges for Dialogue)



## Work Packages: Research Project

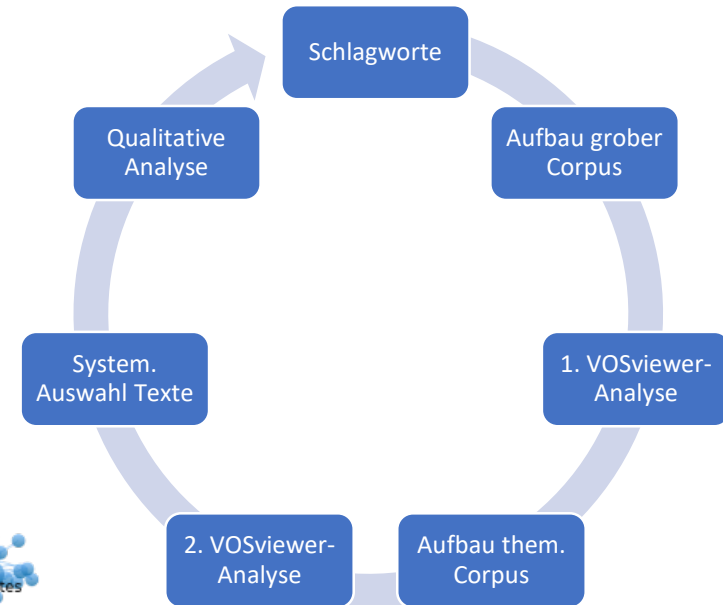
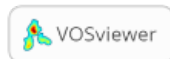
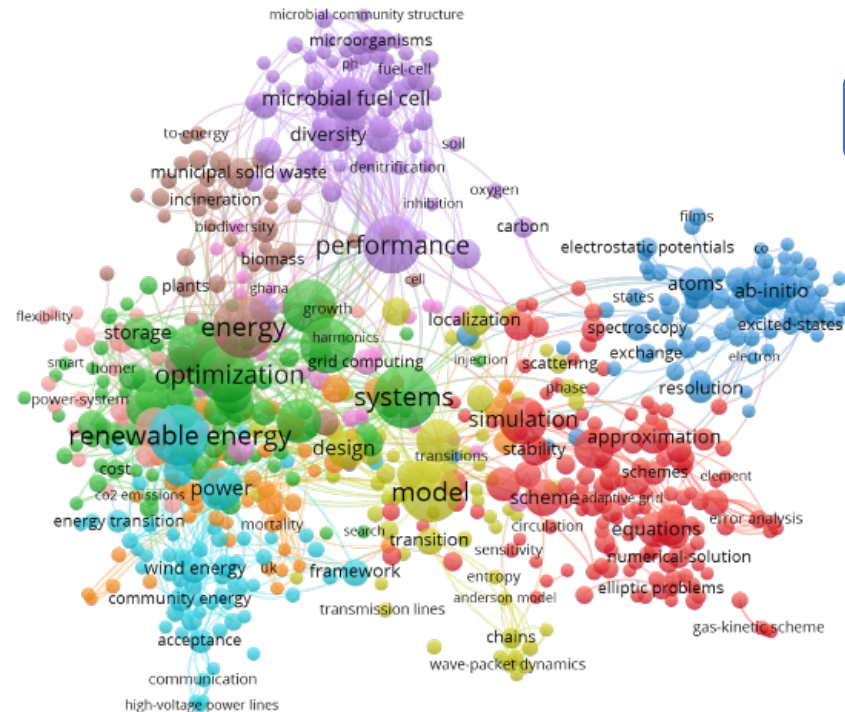


# Research Project: *Dialogbrücken* (Bridges for Dialogue)



**Work Package 1:**  
Scientific literature /  
current state of research

Key **tool:**  
VOSviewer analysis

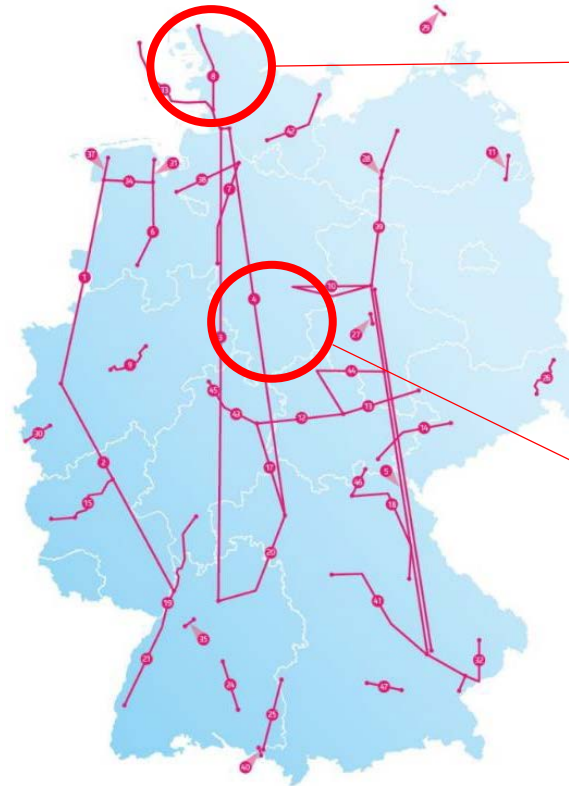


# Research Project: *Dialogbrücken* (Bridges for Dialogue)



## Work Package 2/3: **Case studies**

- **most different design** (conflict /consensus)
- ex post analysis
- same transmission grid operator (Tennet) – difference in public acceptance
- **consensus case**: *Westküstenleitung* -> shared agreement to cooperate with municipalities
- **conflict case**: *Wahle-Mecklar* -> municipalities lead protests and proceeded against Tennet -> *Bundesverwaltungsgericht*





# Research Project: *Dialogbrücken* (Bridges for Dialogue)

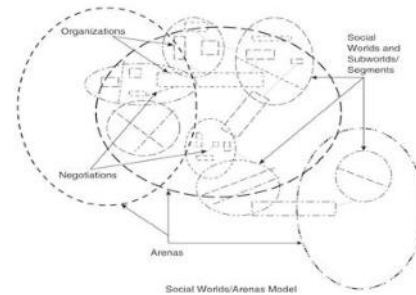


Work Package 2/3: **Case studies**

Of key interest: **tipping points** in public acceptance



situational analysis



interviews



1

basis:  
regional biografies

2

case studies

3

report

2020

2021

2022

# Research Project: *Dialogbrücken* (Bridges for Dialogue)



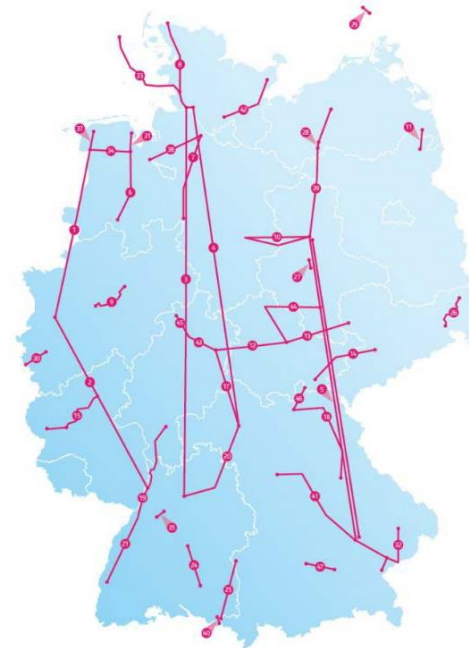
## Dialogue Board (Begleitkreis)



discussion of findings with key  
stakeholder groups

*reality check* for research

## Work Package 4: **Survey** of Municipalities



representative  
survey

sample:  
municipalities  
along key  
transmission  
system expansion  
routes

# Research Project: *Dialogbrücken* (Bridges for Dialogue)



## Results - Connectivity



Articles (journals /  
newspapers)



Guideline / Manual  
for Municipalities



Transfer:  
Workshops