

The role of municipalities, regions and subnational states in the German Energiewende - challenging the regime from inside?

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Role of subnational policies

- What is the role of state actors at subnational levels ?
- Can state actors at subnational levels be seen as challenger actors?
- Under which conditions can state actors at the subnational level question the rules of the field ?

Municipalities aiming at high renewable energy shares

More than 130 districts, municipalities, cities and regions are pursuing high renewable energy shares

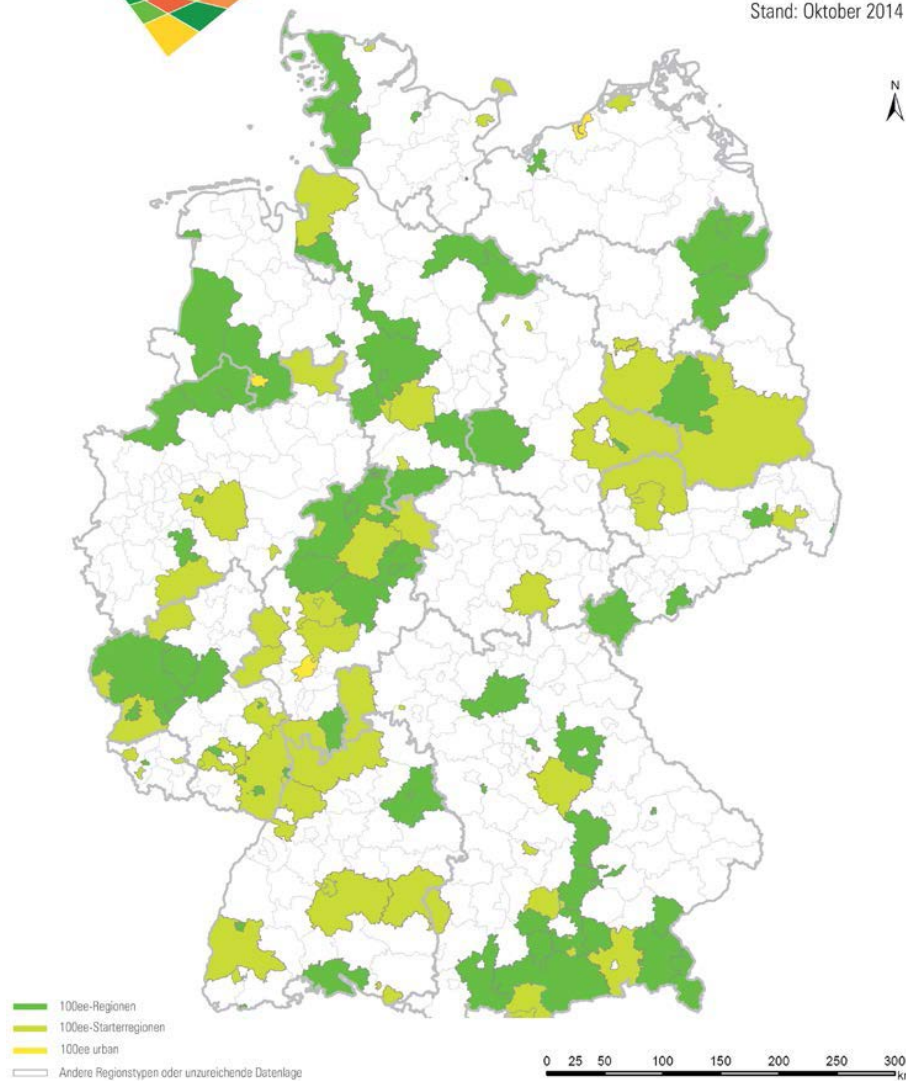
- acting as test sites for technology and system innovation
 - Re-municipalisation of energy utilities:
municipalities repurchase the utilities & distribution grids formerly passed into private hands to regain power to act, economic and strategic room for maneuver
 - municipal utilities strive for a change in their power and heat supply to 100% renewable energy
 - municipal energy or heat concepts; feasibility studies for RE projects
 - the urban land use planning can be aligned to promote renewable energy and energy efficiency
 - pilot projects in energy efficiency of buildings
 - setting up local energy cooperatives
 - etc.
- public utilities:
serious competitors against the incumbent actors in the electricity market

Members of the 100% Renewable Energy Regions network



100% Erneuerbare-Energie-Regionen

Stand: Oktober 2014



Advanced Regions & “Starter Regions”

Basing on an analysis of RES targets, implementation activities, achievements and regional features

Municipalities aiming at high renewable energy shares

Framing & motivation:

- profits for the region
- attract investment into regions
- create jobs
- Energy independency
- enhanced sense of community
- ...

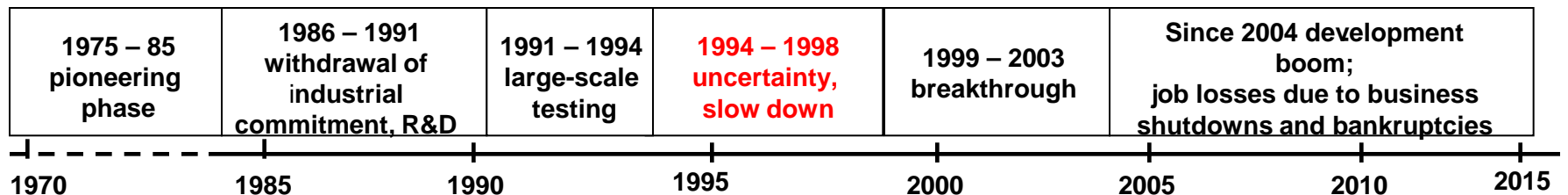
➤ inward perspective

Example from history: Model of Aachen

- Electricity Feed-in Act, came into effect in 1991, had – for the time being - very little impact on the development of photovoltaics
- City of Aachen introduced cost-covering compensation rates in 1995 – funding model that came to be known as “Aachen model”
- solar system operators received compensation payment that covered their costs for a contractually-guaranteed period of 20 years
- ‘Association for the Promotion of Solar Energy’ played a decisive role; battles in the city council: considerable opposition from the municipal utility company STAWAG;
- diffusion: ca. 35 municipalities (primarily in southern Germany) introduced the compensation model for electricity from renewables (e.g. Bonn, Darmstadt, Nuremburg)
- “Aachen model” closed a gap in the federal government’s supporting policy

The Development of Photovoltaics in Germany

phase of uncertainty and slow down after expiry of large scale testing 1000 roof-top-program, before 100.000 roof-top-program and RESA



Ambitious policies at subnational state level

State		target
Baden-Württemberg [BW]	GEG	38% by 2020
Bayern [BY]	GEC	50% by 2021
Berlin [B]	GEG	17,8% by 2020
Brandenburg [BB]	GEC	90% by 2020
Bremen [HB]	ns	100% by 2050
Hamburg [HH]	EG	17% by 2020
Hessen [HE]	FEC	100% by 2050
Mecklenburg-Vorpommern [MV]	GEC	100% by 2050
Niedersachsen	GEC	90% by 2020
Nordrhein-Westfalen [NRW] (Wind)	GEG	15% by 2020
Rheinland-Pfalz [RLP]	GEC	100% by 2030
Saarland [SL]	GEC	20-40% by 2020
Sachsen [SN]	GEC	28% by 2022
Sachsen-Anhalt [ST]	GEG	35% by 2020
Schleswig-Holstein [SH]	GEC	300-400% by 2020
Thüringen [TH]	NEC	45% by 2020
Bundesrepublik	GEC	35% by 2020

- national aim:
40-45% by 2025 and
55-60% by 2035
- states (in total) could provide
ca. 50% by 2020
->exceed national goal?
- Some states are challengers
- Risk: mismatches between
emergent structures

GEC = gross electricity consumption (Bruttostromverbrauch)
 GEG = gross electricity generation (Bruttostromeerzeugung)
 EG = electricity generation (Stromerzeugung)
 FEC = final energy consumption (Endenergieverbrauch)
 NEC = net electricity consumption (Nettostromverbrauch)
 ns = not specified

Source: www.foederal-erneuerbar.de, Energy Strategies of the Länder

Ambitious policies at subnational state level

EWärmeG in Baden-Württemberg

- Baden-Wuerttemberg is strong in innovation and competitiveness
- provincial heat law (EWärmeG) - attempt to develop the potential of renewable heat generation
- obligation to use renewable heat not only in new buildings (national law), but also in the building stock
- state government is engaged on federal level to “upstream” mandatory use of renewables in the building stock to federal law (EEWärmeG)

Climate protection law at Laender level

- North Rhine Westphalia, Rhineland-Pfalz and Baden-Württemberg have passed a climate protection law
- climate legislation at the federal level is overdue

➤ **Room for maneuver of subnational states**

Instrumental Shift in Support Scheme for Renewable Energies

Supranational pressure

- European guidelines on state environmental and energy aid specified design features for national RES support schemes which ensure that they meet compatibility requirements and foster “market integration” of RE

National pressure

- necessity to adapt RES support scheme to the existing market structure became a dominant position among the national actors

Reform of the Renewable Energy Act (EEG) in 2014

Instrumental shift from a price-based to a volume-based auction scheme:

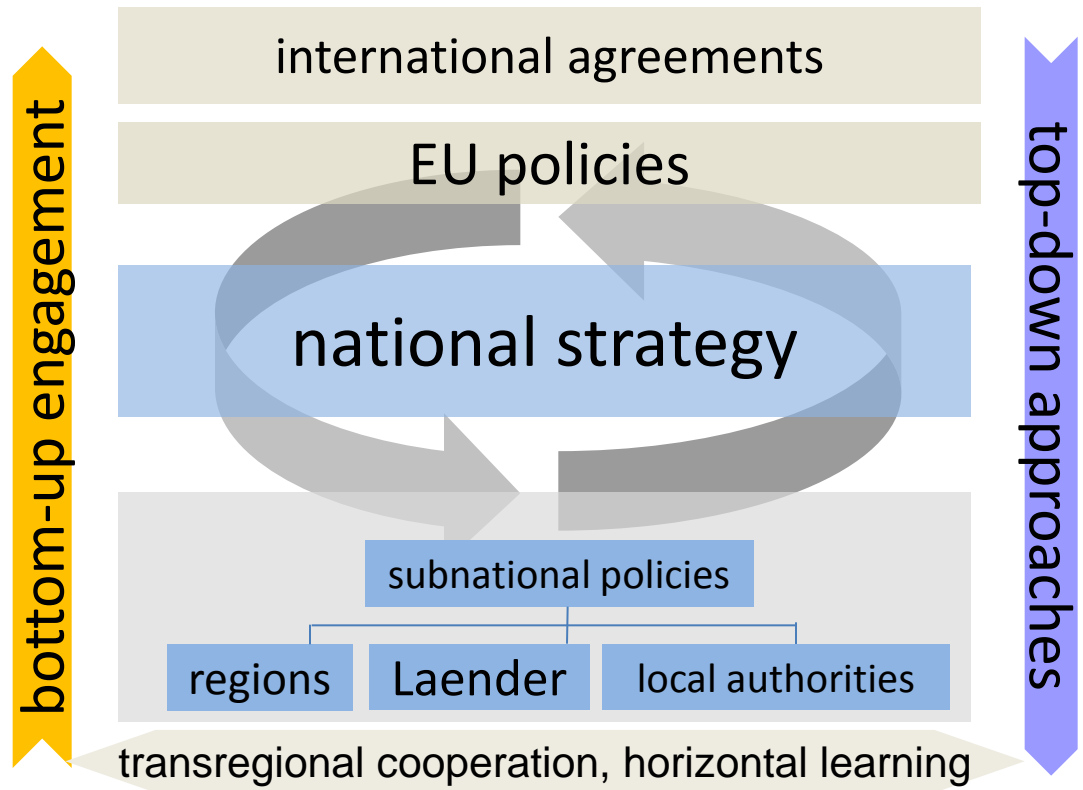
- competitive determination of support level
- direct marketing mandatory for newly in-stalled RE facilities (> 100 kW) at wholesale market
- withdrawal of the green electricity privilege (GEP) due to conflicts with EU competition law
- surcharge on the self-consumption of PV-electricity

Reform of support scheme threatens to block out decentralized RE expansion and experimentation

- competitive auction system may discriminate small operators and initiatives due to high transaction costs and risks
- mandatory direct marketing suppresses regional green electricity markets aiming at system integration through regional supply structures
- hampers local & regional business models
- may impact acceptance and popularity of energy transition

The multi-level (governance) effect

- Multi-level governance structures can facilitate policy experimentation and diffusion of best practice, upstream of innovative policies
- multi-level structures offer multiple access points for leadership



Municipalities and subnational states as challengers in the multi level (governance) system?

- states, regions and municipalities as “laboratories” for innovation and experimentation
 - some cities and states explicitly aim to be a pioneer/ role model for sustainable energy policy-> constructive competition
 - “export” of transformative change – inter- and intra-level policy learning - diffusion of best practices by emulation, horizontal „lesson-drawing“
 - states/ regions/ cities as trend setters and accelerators
-> higher dynamic of expansion and innovation
 - local democracy with enhanced participation, strengthens democracy and pluralism, allows for higher legitimization and acceptance
 - bottom up dynamics, “upstreaming” initiatives – can trigger the strengthening of national standards
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- **state actors at subnational levels can question the rules of the field / fill gaps**
 - **potential for transformative change from the “inside the regime”**

Conclusions for discussion:

“Multi-level effect” depends on various factors and their configuration

- context variables
 - resources, formal competencies
 - windows of opportunity
 - emergence of (challenger) policy networks; policy entrepreneurs
 - will & skill, interests & motivation of main actors and relevant institutions
 - *multi-level reinforcement!*
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- policies at different levels targeting the same goals (reinforcement) can set in motion the innovation process; destabilization of existing lock-in mechanisms can occur
 - Facilitating framework conditions from upper levels needed
 - conflicting targets or inconsistencies in policy of various levels can cause costs and system instabilities; risk of reinforcement downwards
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- **Need for stronger policy-coordination across levels for reflexive and stable multi-level governance structures and processes**
 - **Stronger strategic alliances between challenging actors needed**

Thank you

<http://www.energy-trans.de>