HELMHOLTZ GEMEINSCHAFT
Allianz ENERGY-TRANS

ffu Forschungszentrum für Umweltpolitik

Freie Universität Berlin

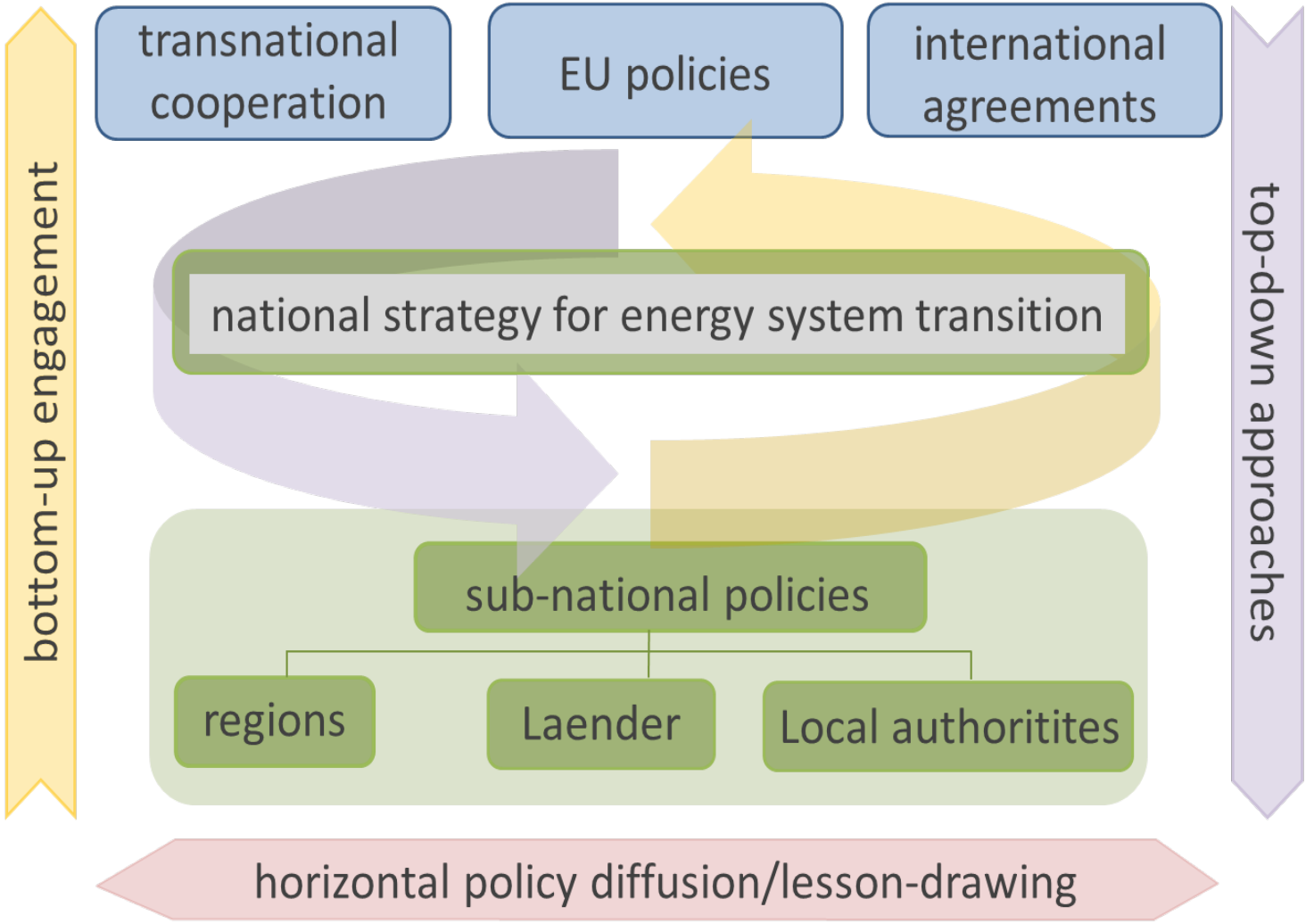
HELMHOLTZ ZENTRUM FÜR UMWELTFORSCHUNG UFZ

The challenge of multi-level governance: How much (de)centralization does the *Energiewende* need?

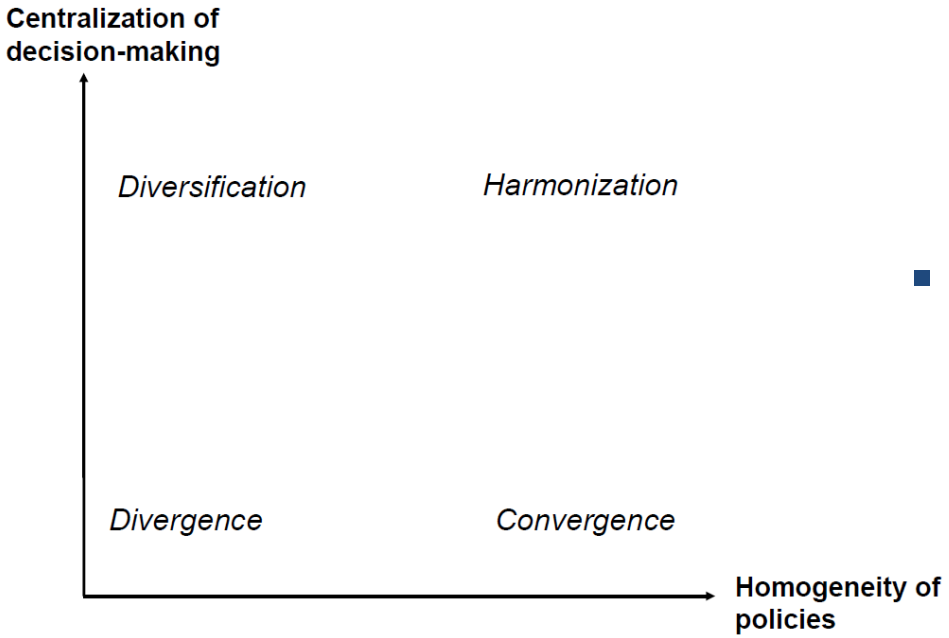
Sebastian Strunz[a], Kerstin Tews[b], Erik Gawel[a,c], Paul Lehmann[a], Dörte Ohlhorst[b], Miranda Schreurs[b]

[a] Department of Economics, Helmholtz Centre for Environmental Research - UFZ
[b] Environmental Policy Research Centre (FFU), Freie Universität Berlin
[c] Institute for Infrastructure and Resources Management, Universität Leipzig

MULTI-LEVEL GOVERNANCE CHALLENGE/ MODES OF COORDINATION



Conceptual framework



©UFZ, own illustration

- **Two dimensions**
  1. Homogeneity of policies
  2. Centralization of decision making
- **Example EU: different degrees of integration in different policy areas**
  - Nuclear policies decentralized and very heterogeneous
  - RES policies decentralized but some evidence for bottom-up convergence

Normative arguments pro/contra centralization

Theory of "fiscal federalism" (Oates 1972, 1999)

	pro	contra
Centralization of decision-making	Economies of scale and scope	Laboratories of innovation
Homogeneity of policies	Homogeneous preferences	Heterogeneous preferences

Different trade-offs for different areas of energy policy:

- e.g., heterogeneous risk preferences w.r.t. nuclear power
- e.g., cost savings from RES cooperation but also decentralized RES policy experiments

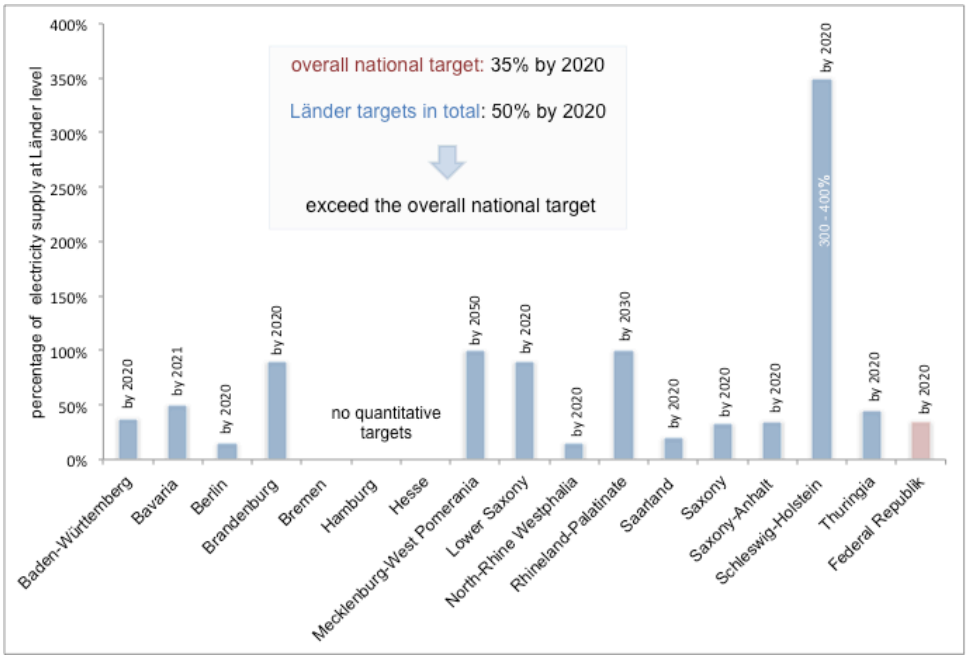
Coordination challenge in the German federal system

Situation until the most recent EEG-reform

Missing Lead from the top

Strong Push from the bottom

Risk of sub-optimal developments for the overall energy system



©FFU, own illustration based on data from www.foerderal-erneuerbar.de

Current situation: coordinating energy transition efforts by top-down volume control alone?

More top down lead:

- corridors/caps regarding annual capacity additions per RES-technology
- responsive degression framework for FIT-remuneration rates
- gradual shift from FIT to volume-based auction schemes

…but no spatial coordination:

- need to synchronize spatial distribution of RES capacities with availabe grid capacities

Towards a common RES-approach in the EU?

EU legal context:

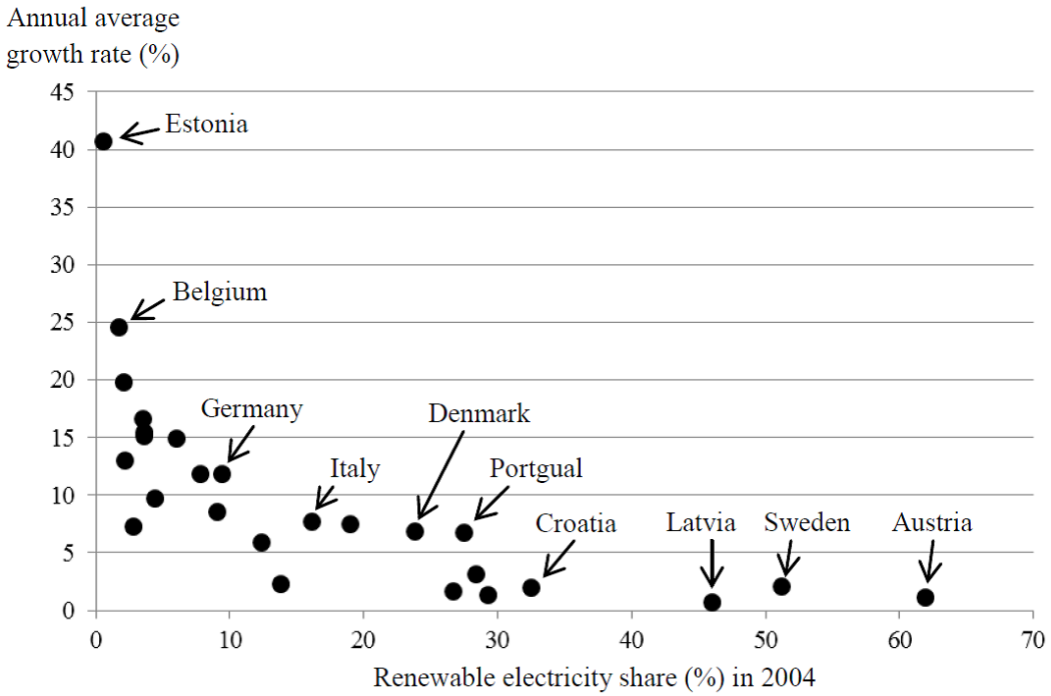
- Lisbon treaty on energy policy: some EU competencies but member states remain in control of energy mix
- EU impact “predominantly indirect yet powerful” (Callies and Hey 2013): directives, guidelines, roadmaps…

Top-down harmonization?

- EU commission pushes for tenders as standard RES policy (state aid guidelines)
- 2030 framework puts feeble incentive to coordinate since RES target (27%) is
  - only “binding” on EU level – no specific responsibilities for member states
  - probably redundant anyway (given the 40% emission reduction target)

Towards a common RES-approach in the EU?

- member states neglect cooperation mechanisms of the RES-directive
- still, there is some evidence for bottom-up convergence:



©UFZ, own illustration based on EU data

Summary

- Overall challenge: balancing the necessary range of upper level interventions with the need for innovation at lower levels
- *Energy transition needs pioneers*. Less freedom for the „decentral laboratories of innovation“ risks stalling the engine of Germany‘s energy transition
- *Strict Europeanization of energy policy is not desirable* against the backdrop of
  - heterogeneous member states preferences and societal risk perception and
  - a rather national concept regarding the security of supply in member states
- *Energy transition needs different mechanisms* in order to coordinate transitional efforts from different levels and policy areas

HELMHOLTZ GEMEINSCHAFT

Allianz ENERGY-TRANS

References

Beermann, J. and K. Tews (2015): Preserving Decentralised Laboratories for Experimentation under Adverse Framework Conditions - Why Local Initiatives as a Driving Force for Germany's Renewable Energy Expansion Must Reinvent Themselves. FFU Berlin. *Submitted to Journal of Cleaner Production*

Brandt, R.; Ohlhorst, D.; Steuwer, S.; Tews, K. (2015): Energiewende: Gestaltungsaufgaben auf vielen Ebenen, *GAiA* Volume 24, Number 1, January 2015, pp. 62-63(2).

Gawel, E., S. Strunz and P. Lehmann (2014). A public choice view on the climate and energy policy mix in the EU – how do emissions trading scheme and support for renewable energies interact? *Energy Policy* 64: 175-182.

Gawel, E. and S. Strunz (2014). State Aid Dispute on Germany's Support for Renewables: Is the Commission on the Right Course? *Journal for European Environmental and Planning Law* 11(2): 139-152.

Gawel, E., S. Strunz and P. Lehmann (2014). Wieviel Europa braucht die Energiewende? *Zeitschrift für Energiewirtschaft* 38: 163-182.

Gawel, E., S. Strunz and P. Lehmann (2013). Germany's energy transition under attack. Is there an inscrutable German Sonderweg? *Nature and Culture* 8(2): 121-133.

Ohlhorst, D. (2016): Germany's Energy Transition Policy between National Targets and Decentralized Responsibilities. In: *Journal of Integrative Environmental Sciences*; 12:4, 303-322

Ohlhorst, D., Tews, K. and M. Schreurs (2013): Energiewende als Herausforderung der Koordination im Mehrebenensystem. In: *TATuP - Zeitschrift des ITAS zur Technikfolgenabschätzung*, Schwerpunkt: Energiewende 2.0 – vom technischen zum soziotechnischen System?, 22(2): 48-55.

Strunz, S., Gawel, E., and P. Lehmann (2015). Towards a general "Europeanization" of EU Member States' energy policies? *Economics of Energy & Environmental Policy,* 4(2), 143-159.

Strunz, S., Gawel, E., and P. Lehmann (2014). On the alleged need to strictly "Europeanize" the German Energiewende. *Intereconomics* 2014(5): 244-250.

Tews, K. (2015): Europeanization of Energy and Climate Policy: The Struggle Between Competing Ideas of Coordinating Energy Transitions. In: *The Journal of Environment & Development* 24(3): 267-291.

Vogelpohl, T.; Ohlhorst, D.; Bechberger, M., Hirschl, B. (2015): German renewable energy policy – independent pioneering versus creeping Europeanization? In: Solorio, I., Jörgens, H. (eds.) *The EU Renewable Energy Policy: Challenges And Opportunities:* Edward Elgar, forthcoming.