



KLIMZUG-NORD

Strategische Anpassungsansätze
zum Klimawandel in der Metropolregion Hamburg

What is most helpful for transformation to Regional Climate Adaptation Governance: Spatial Scale, Juristical Hierarchy or/and Multi-Level-Perspective

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Universität Hamburg





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Strategies to adapt to climate change in the metropolitan region of Hamburg

- 2009 – 2014
- 12 Universities and Research Center
- ~ 100 Scientists
- 22 authorities and corporations
- 25 work packages
- 15 Mill. € funding





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Strategische Anpassungsansätze zum Klimawandel in der Metropolregion Hamburg

Metropolitan Region Hamburg

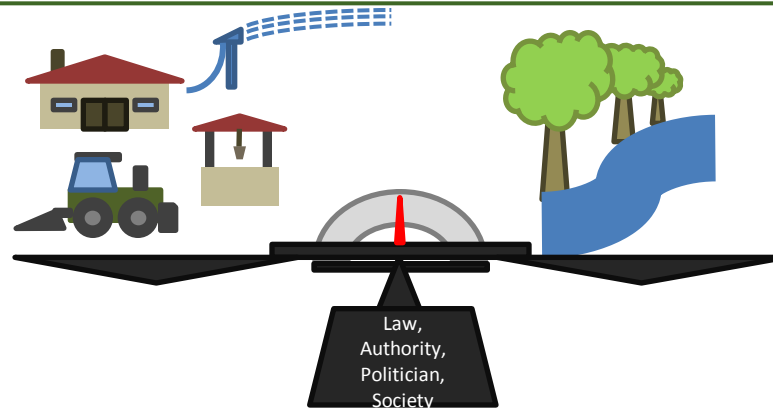
- 4,3 Mio. People
- 14 Districts
- 3 Federal States (Bundesländer)



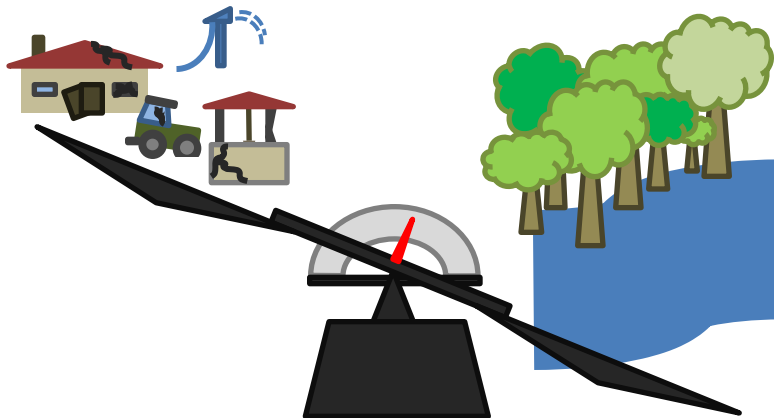
Our work package: Regional Climate Adaptation Governance

- several local case studies
- qualitative interviews
- social network analysis
- stakeholder panels
- formal and informal
power relationship analysis
- communication analysis
- ...

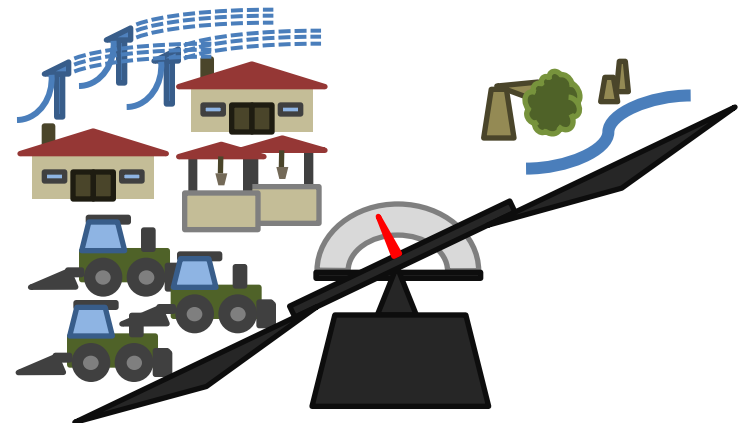
Problem Perception of Actors about groundwater uptake



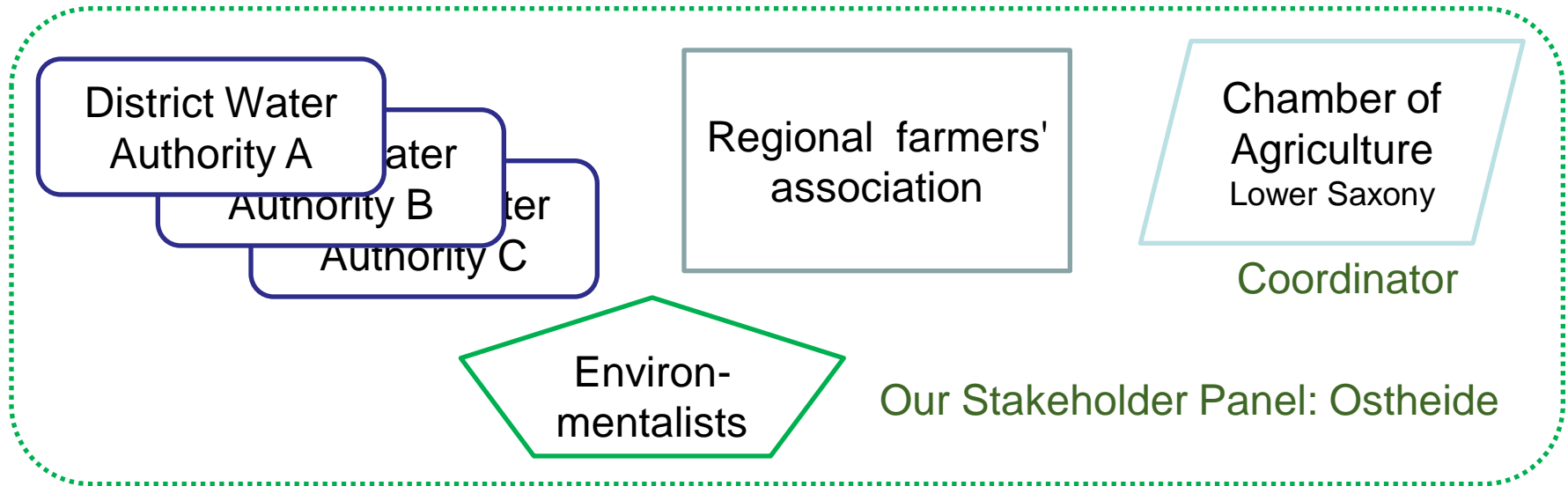
District Water Authority



Regional farmers' association



Environmentalists



Aims:

- teach knowledge and uncertainties
 - improve communication and understanding about perspectives and interests
 - facilitate social learning
- Reflexive Governance



- Spatial: Global, National, Regional, Local
- Juristical Hierarchy: WTO, European Union, Federal Republic of Germany, Länder, administrative district
- Multi-Level Perspective:
socio-technical Niches, Regime, Landscape
- ...or ...?

- **Global:** Climate Change; world agricultural market; world food affairs
- **Europe:** implementation of the Water Framework Directive: comparison of Germany/Ostheide and Spain/Andalusia
- **Germany:** most of the irrigation area in Germany is located in the Ostheide Region
- **Region:** water catchment, ground water balance, light soils, biodiversity, regional economy
- **Local:** small streams (dry in summer?), vulnerable stream waterheads, irrigation management; economy of villages, farms, families, and individuals



Juristical Hierarchy

EU Water Framework Directive, ...

Federal State
Minister of
Environment

Federal State
Minister of
Agriculture

Federal State
(Bundesland) Water
Authority

corporation under
public law

District Water
Authority A

Water

Authority B

ter

Authority C

Regional farmers'
association

Chamber of
Agriculture
Lower Saxony

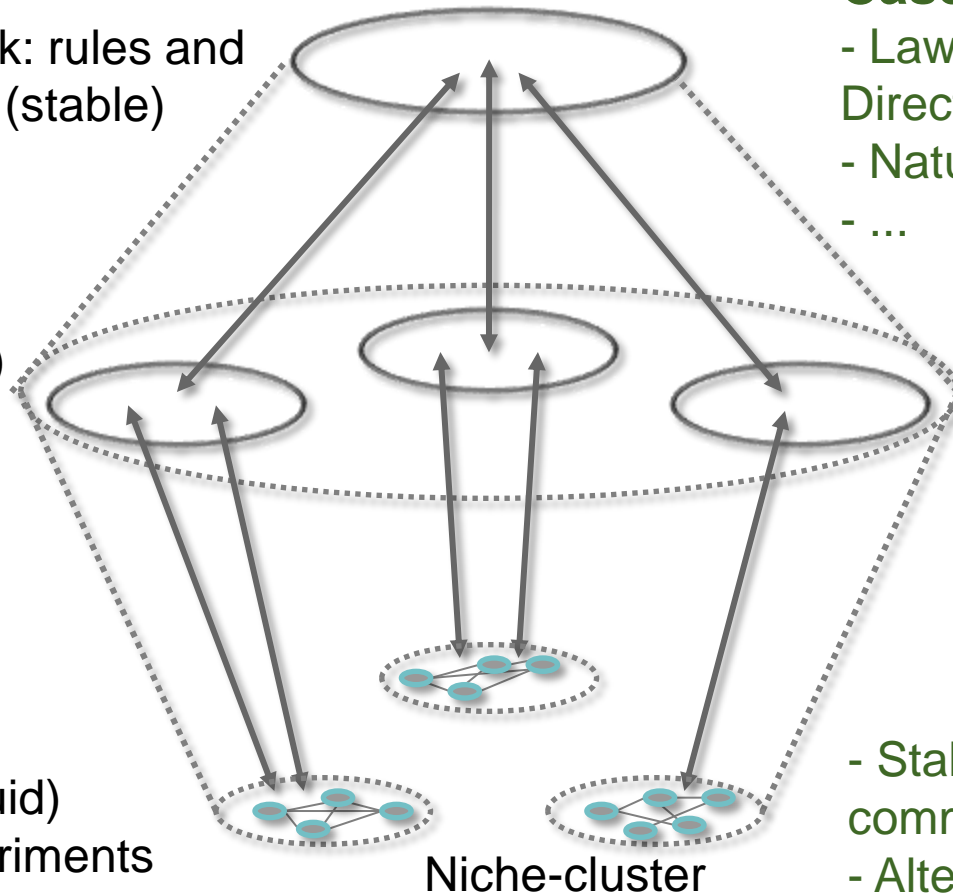
Coordinator

Our Stakeholder Panel: Ostheide

Framework: rules and structures (stable)

Regime (semi-fluid)

Niches (fluid)
local experiments
(adapted from Geels, Kemp, 2000)



Case study: Lüneburger Heide

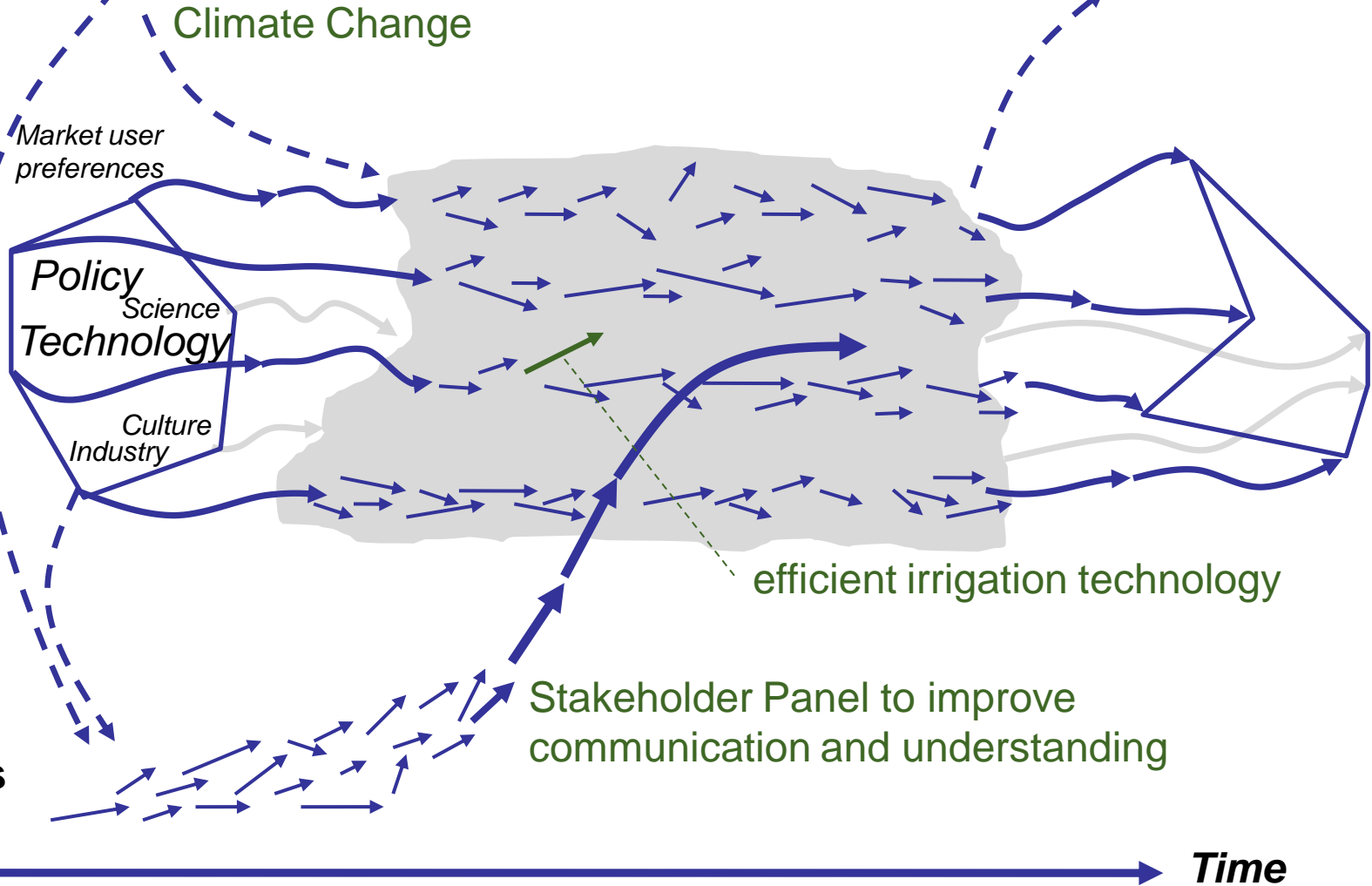
- Laws: European Water Framework Directive; ...
- Nature: Climate Change; soil quality
- ...
- Technology: irrigation technique; -management; ...
- Policy: established constellation of actors; formal and informal power relationship; ...
- ...
- Stakeholder Panel to improve communication and understanding
- Alternatives to cash crops (*teff*) → to reduce the need for groundwater
- Concept of dynamic nature conservation
- ...

Multi-Level Perspective co-evolution and trajectories

**Socio-technical
framework**
(stable exogenous
context)

**Socio-
technical
regime**
(semi-fluid)

**Niche-
innovations**
(fluid)

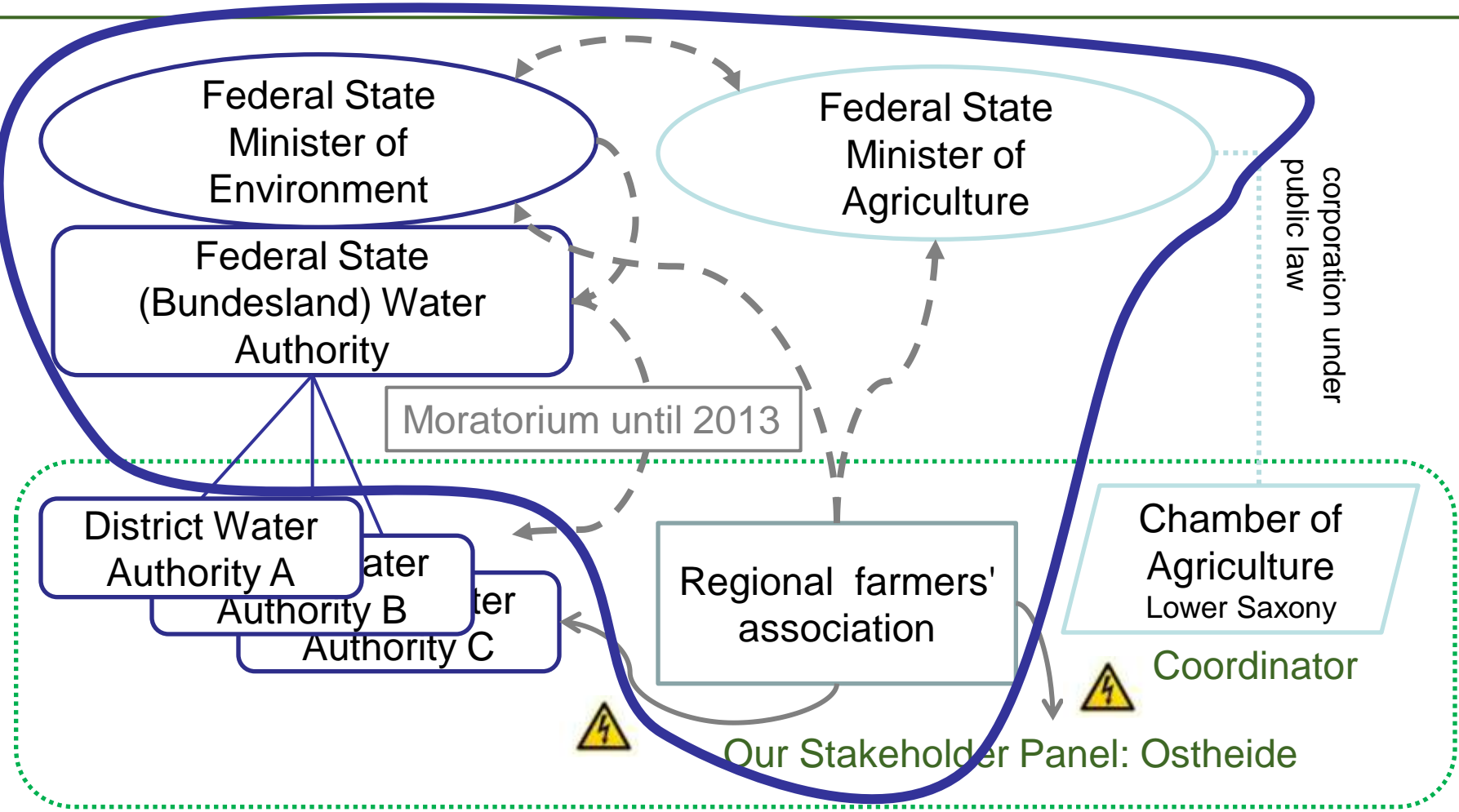


What is most helpful for transformation to Regional Climate Adaptation Governance?

- Spatial: Global, National, Regional, Local
 - Juristical Hierarchy: WTO, European Union, Federal State, Länder, administrative district
 - Multi-Level Perspective:
socio-technical Niches, Regime, Landscape
- all perspectives are helpful to understand the problem
- but not sufficient to explain our findings (e.g. harmonic relationship, rejections of stronger focus on conflicting interests, lobbying behind closed doors while pretending to cooperate)
- analysis of hidden aspects are needed to develop intervention strategies



Hidden Aspects Subtel Power



Multi-Level Perspective plus „nasty politics“ (Voss 2009)

**Socio-technical
framework**
(stable exogenous
context)

Climate Change

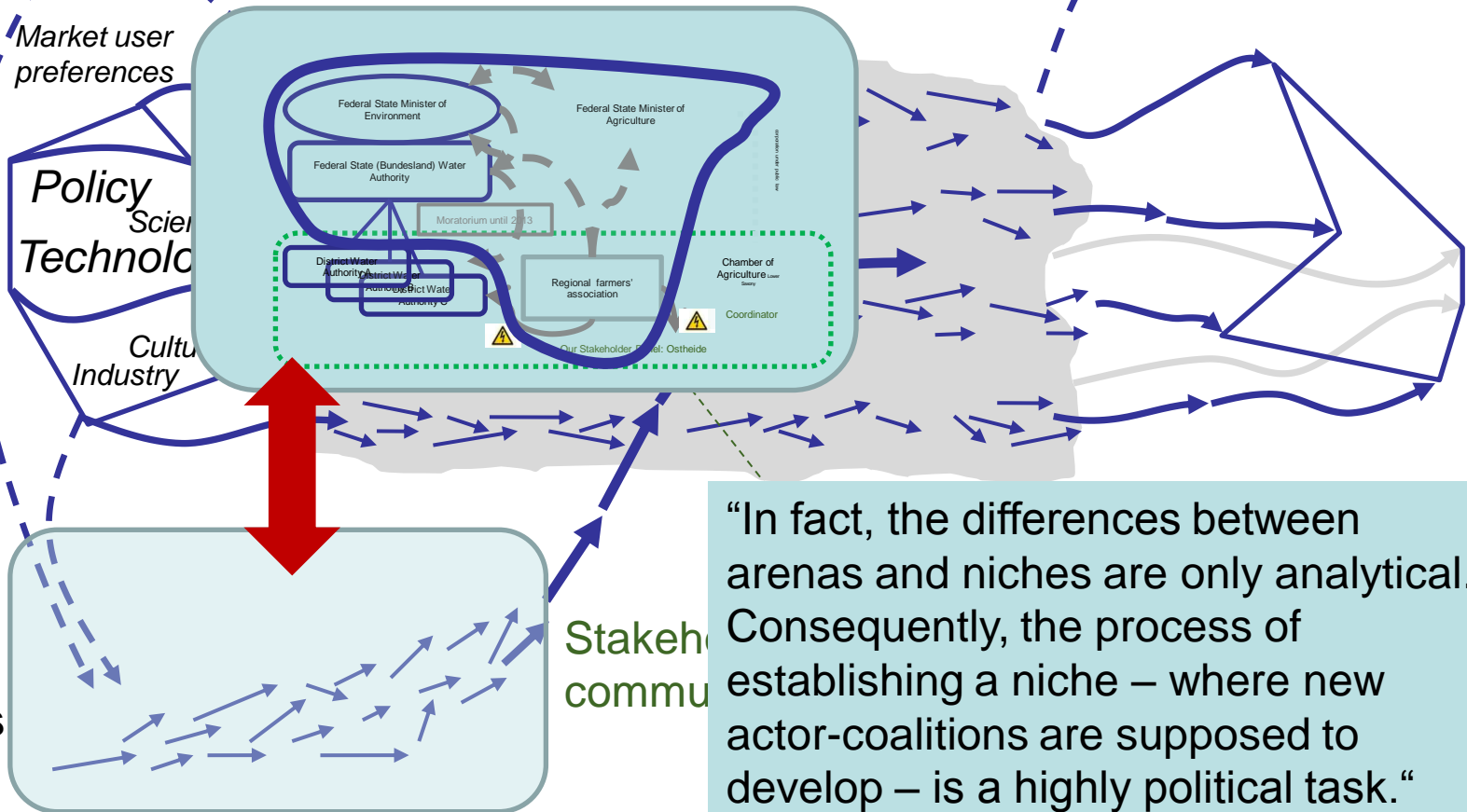
Market user
preferences

Policy
Science
Technology

Culture
Industry

**Socio-
technical
regime**
(semi-fluid)

**Niche-
innovations**
(fluid)



“In fact, the differences between arenas and niches are only analytical. Consequently, the process of establishing a niche – where new actor-coalitions are supposed to develop – is a highly political task.”
(Gottschick (in review, 2013), JEPP, Sp. Issue on Reflexive Governance).

- **subtle power**

Gottschick, M. (2011): How to Deal with (Subtle) Power in Regional Governance Networks. Abstract, 2nd International Conference on Sustainability Transitions. Diversity, plurality and change: breaking new grounds in sustainability transition research. June 13-15, 2011, Lund, Lund University.

- **strategic communication**

Part of the PhD Thesis of my colleague Jürgen Schaper (in preparation): Climate Adaptation Communication.

- **strategic (cooperation) arenas like stakeholder panels**

Gottschick, M. (2013 in review). "How Reflexive Governance Helps on the Regional Level. Framework to Analyse, Interpret, and Support Reflexivity in Regional Governance Networks", *Journal for Environmental Policy & Planning Special Issue of Reflexive Governance*.

- **strategic use or construction of uncertainties**

See my presentation tomorrow, 11:00, Room Kremlin A

How to analyse hidden aspects?

- By definition: they are hidden!
- Actors work hard to hide them!
- They are not amused if you discover their hidden strategies!
- This will probably destroy the trustful relationship you (science) might have.
- It stays in conflict with a rational harmonic participative problem solving approach (transdisciplinary research).
- Science will be perceived even more as a political actor.
- Therefore: Scientific evidence needs high standards of qualitative research and interpretative methods.
- The role of scientist in transdisciplinary research project needs to be clearly reflected to meet such standards