



Lecture 4: The Great Transformation: A Heuristic Concept

Episode 2: Drivers of the Low-carbon Transformation

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Episode 1: Key characteristics of the Global Transformation towards sustainability

Episode 2: **Drivers of the Low-carbon Transformation**

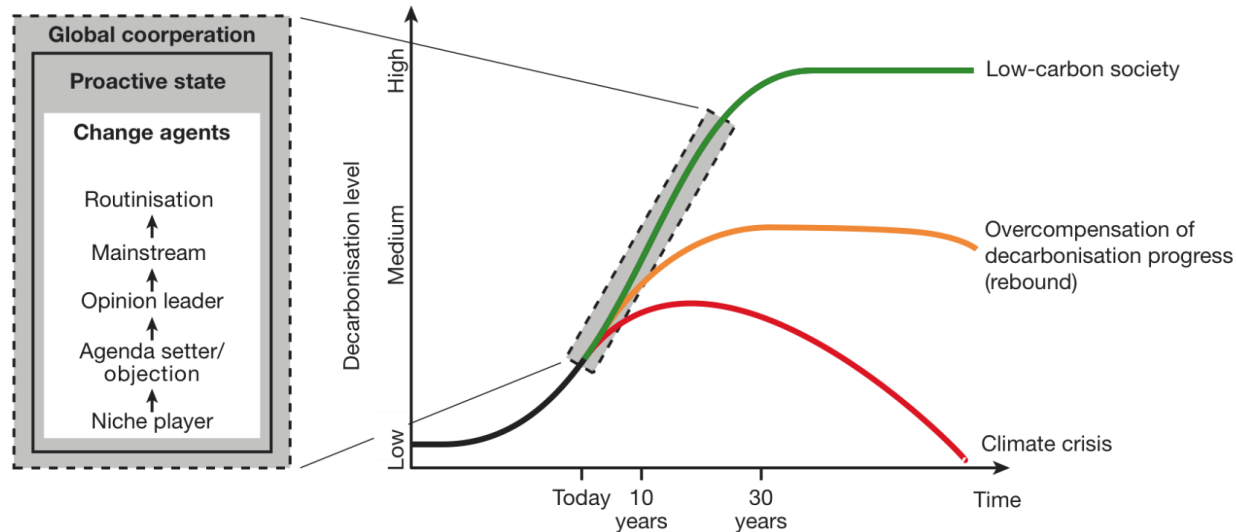
Episode 3: Interview



1. You will understand what “managing” a low-carbon transformation means.
2. You will be able to differentiate different actors and their roles within transformations.
3. You will be able to explain the central terms of niches, socio-technical regimes, and co-evolution.
4. You will have an initial understanding of the social forces shaping a transformation.
5. You will be familiar with policy instruments to support the low-carbon transformation.



Managing the transformation trajectory



Since the 1970s: “we do have a problem“:

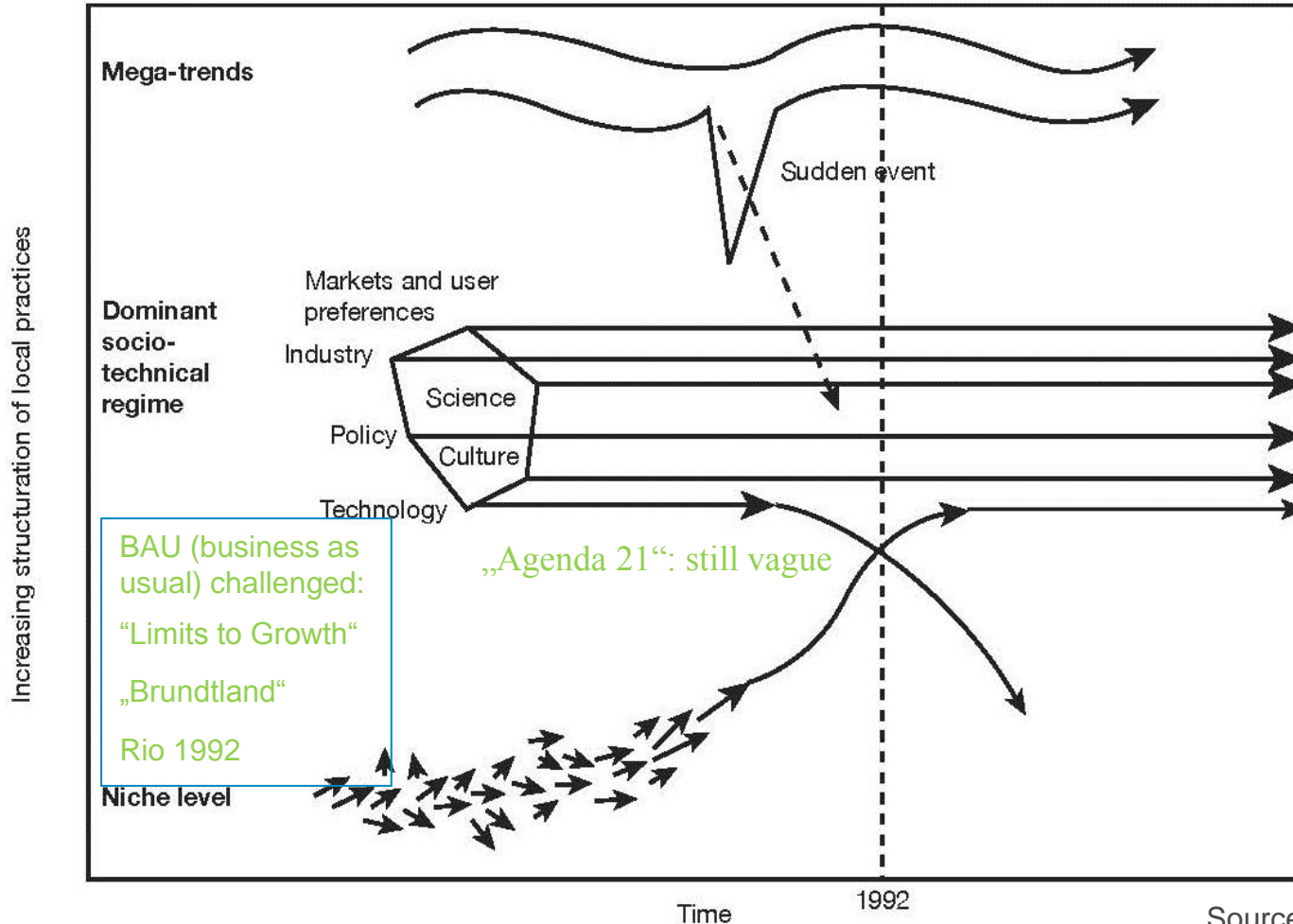
- “Limits to Growth“
- Rio 1992

Driving the transformation

- scale: from pilots to systems and acceleration
- setting the course: long-term perspectives towards 2050 (roadmaps)
- from sector to system reforms (cities, mobility, energy, lifestyle)

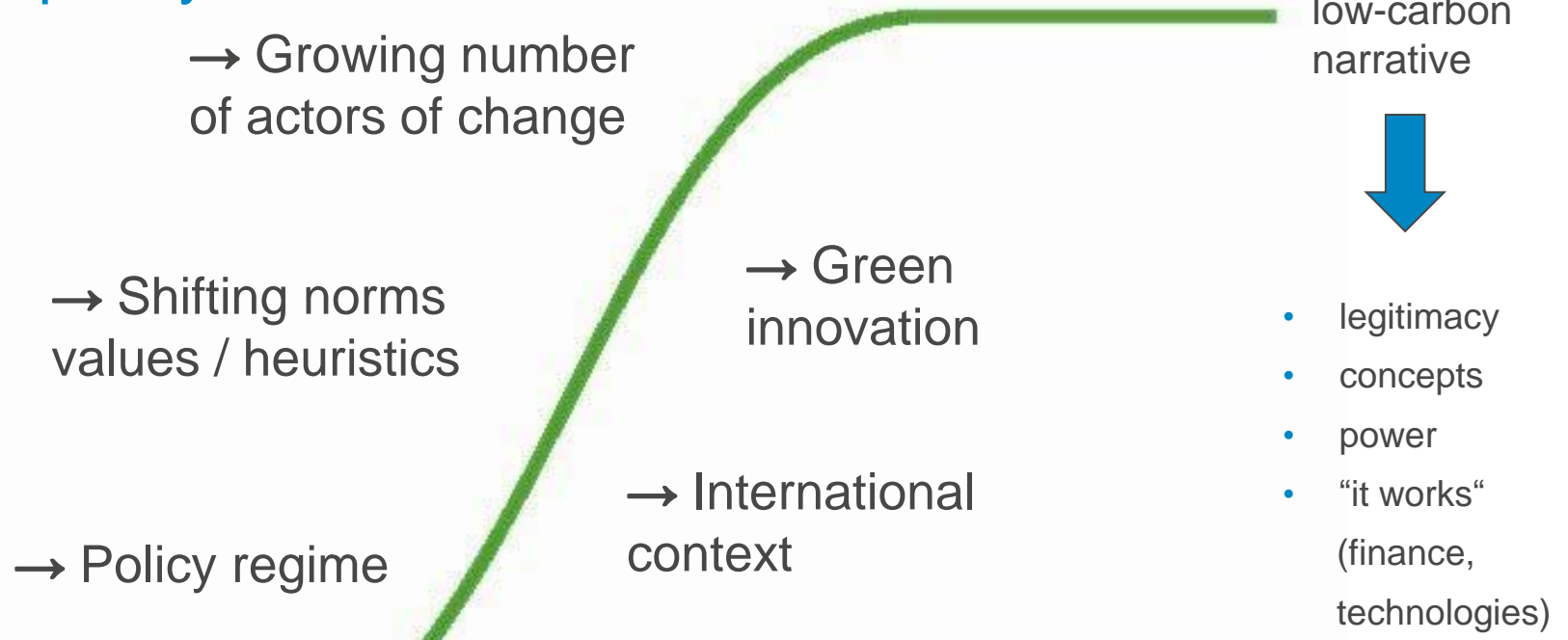
Building a low-carbon society ... beyond policy reforms

Rio 1992: Still an early stage of green transformation



Source: based on Grin et al., 2010

Co-evolution: Transformation driven by accumulation of multiple dynamics



I. Legitimacy of BAU eroding/
BAU no option/
tipping point constellations

Regime shifts „can occur when the system is pushed across some threshold by external and internal dynamics.“ (Ostrom et al. 2008) ... tipping point constellations



Arenas and drivers of transformation:

1. New narrative
2. Actors
3. Innovation
4. Policy regime
5. International context
6. Shifting norms/values

II. Vision: low-carbon narrative

Transformational policies

Co-evolution

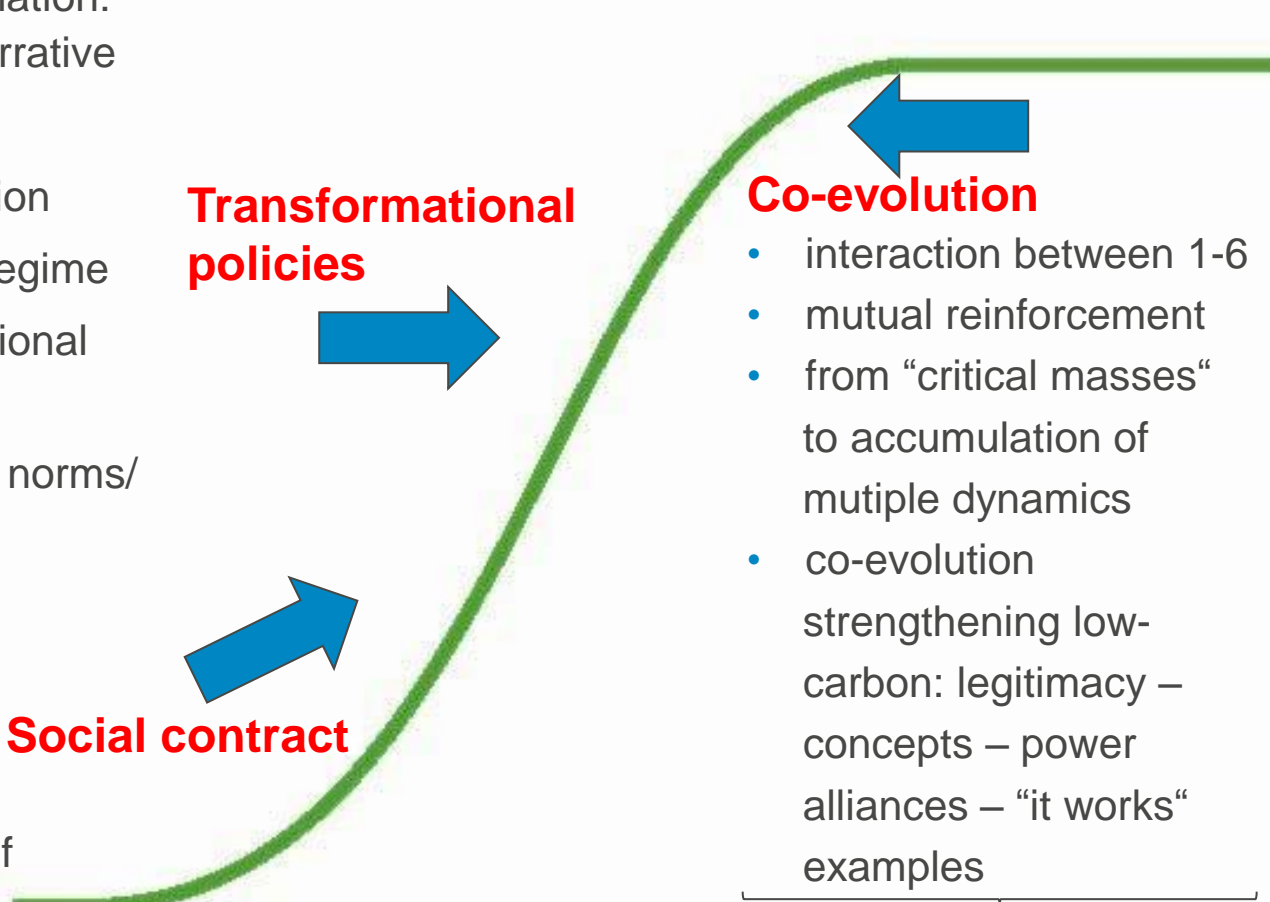
- interaction between 1-6
- mutual reinforcement
- from “critical masses” to accumulation of multiple dynamics
- co-evolution strengthening low-carbon: legitimacy – concepts – power alliances – “it works” examples

- scaling up
- acceleration
- global diffusion of low-carbon concepts

Social contract

Low-carbon becoming the main driving force / new mainstream

I. Legitimacy of BAU eroding



Reversing high carbon: Ten bundles of instruments

1. Proactive/ enabling state
2. Price for carbon
3. Regional energy cooperation
4. Internationalize feed-in tariffs/ DESERTEC for Africa
5. Reduce energy poverty – low-carbon
6. Low-carbon urbanization
7. Low-carbon land use
8. Finance mechanisms and new business models
9. Low-carbon research strategies/ knowledge gaps
10. Global governance for the low-carbon transformation

polycentric strategy

focused strategy



- Niches and socio-technical regimes: try to understand both concepts and describe a niche that is relevant to a low-carbon transformation.
- Policy action: pick one of the instrument bundles and explain what must be done to effectively implement it.
- Explain the concept of the social contract.



Basic reading:

- WBGU (2011): World in Transition: A Social Contract for Sustainability, chapter 4. Berlin. <http://www.wbgu.de/en/home/>

Further reading:

- Rotmans, J., Kemp, R. and van Asselt, M. (2001): More evolution than revolution: transition management in public policy. *The Journal of Future Studies, Strategic Thinking and Policy* 3 (1), 15–31.
- Weiss, T.G. and Thakur, R.C. (2010): Sustainable Development. In: Weiss, T.G. and Thakur, R.C. (eds.): *Global Governance and the UN: an Unfinished Journey*. Bloomington, Indianapolis: Indiana University Press.



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