



# Lecture 10: Instruments and Recommendations for Action

## Episode 1: The Context

Prof. Dr. Dirk Messner

Director of the German Development Institute / Deutsches Institut für  
Entwicklungspolitik (DIE), Bonn (Germany)

### **Episode 1: The Context**

Episode 2: Ten Measure Bundles

Episode 3: Interview



1. You will understand the international and systemic context for the low-carbon transformation and initiatives.
2. You will understand that political initiatives and programmes can enable but not steer the low-carbon transformation.

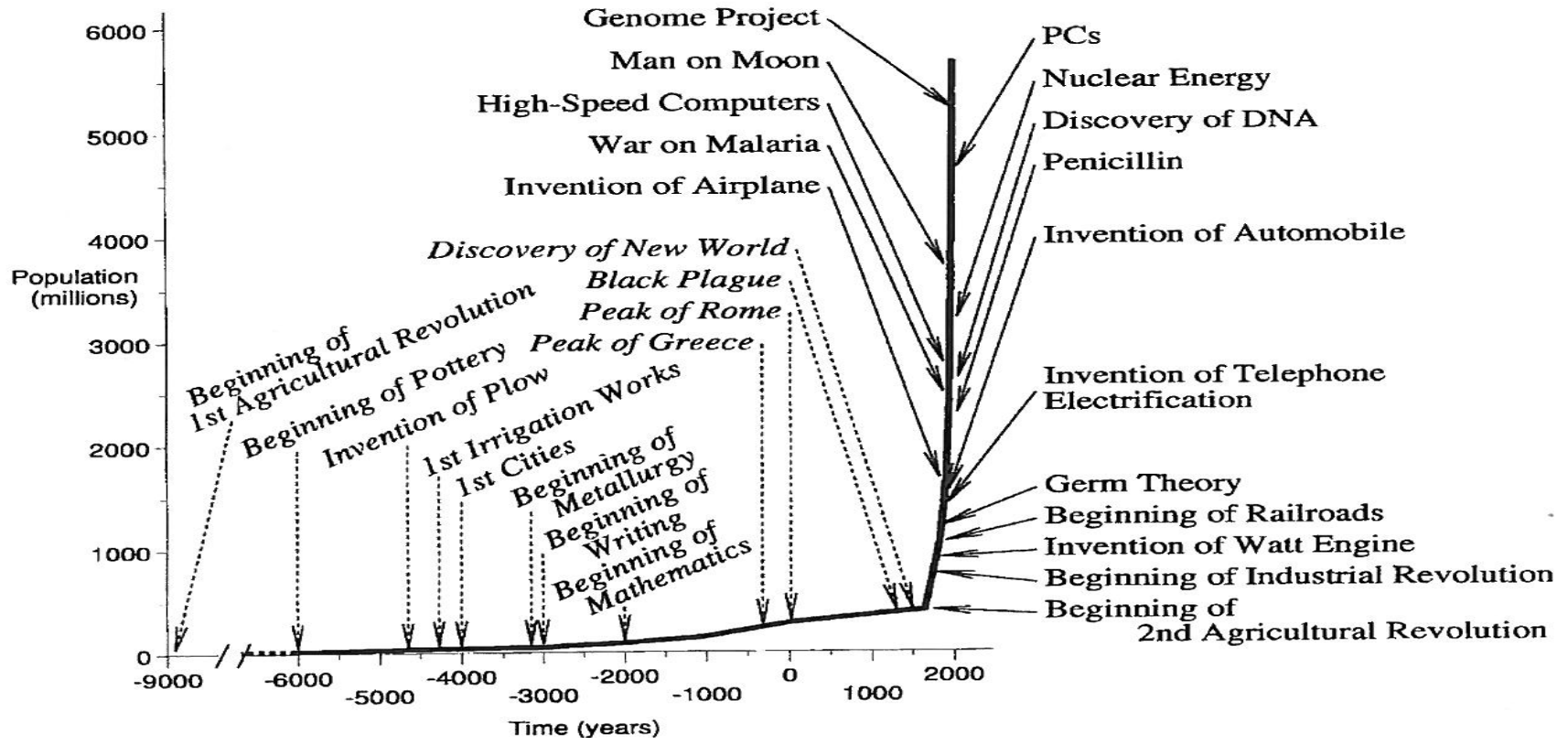


# Population growth and technology development

2

THE AMERICAN ECONOMIC REVIEW

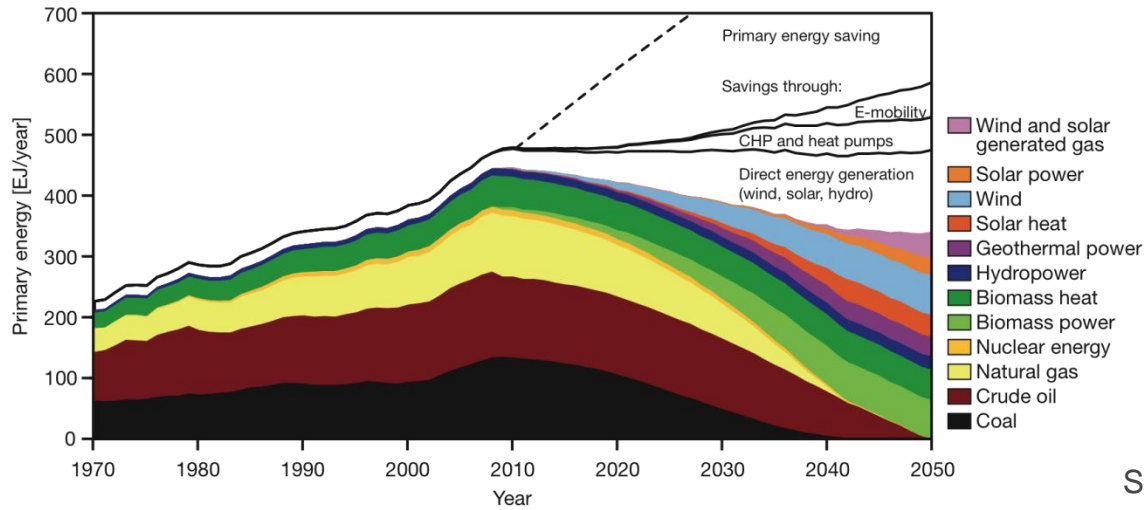
MARCH 1999



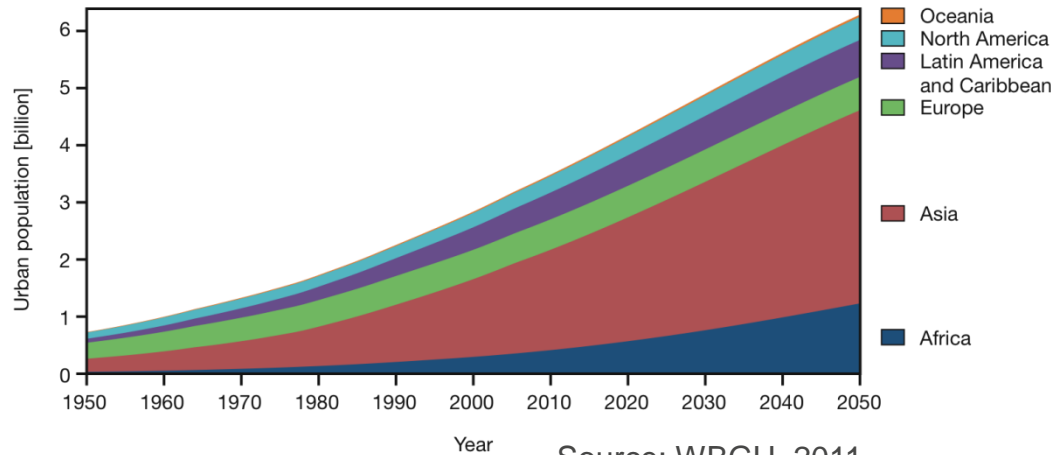
Source: Fogel, 1999

# Three transformation areas: Basic structures of the global economy

- Energy
- Urbanisation
- Land use



Source: WBGU, 2011



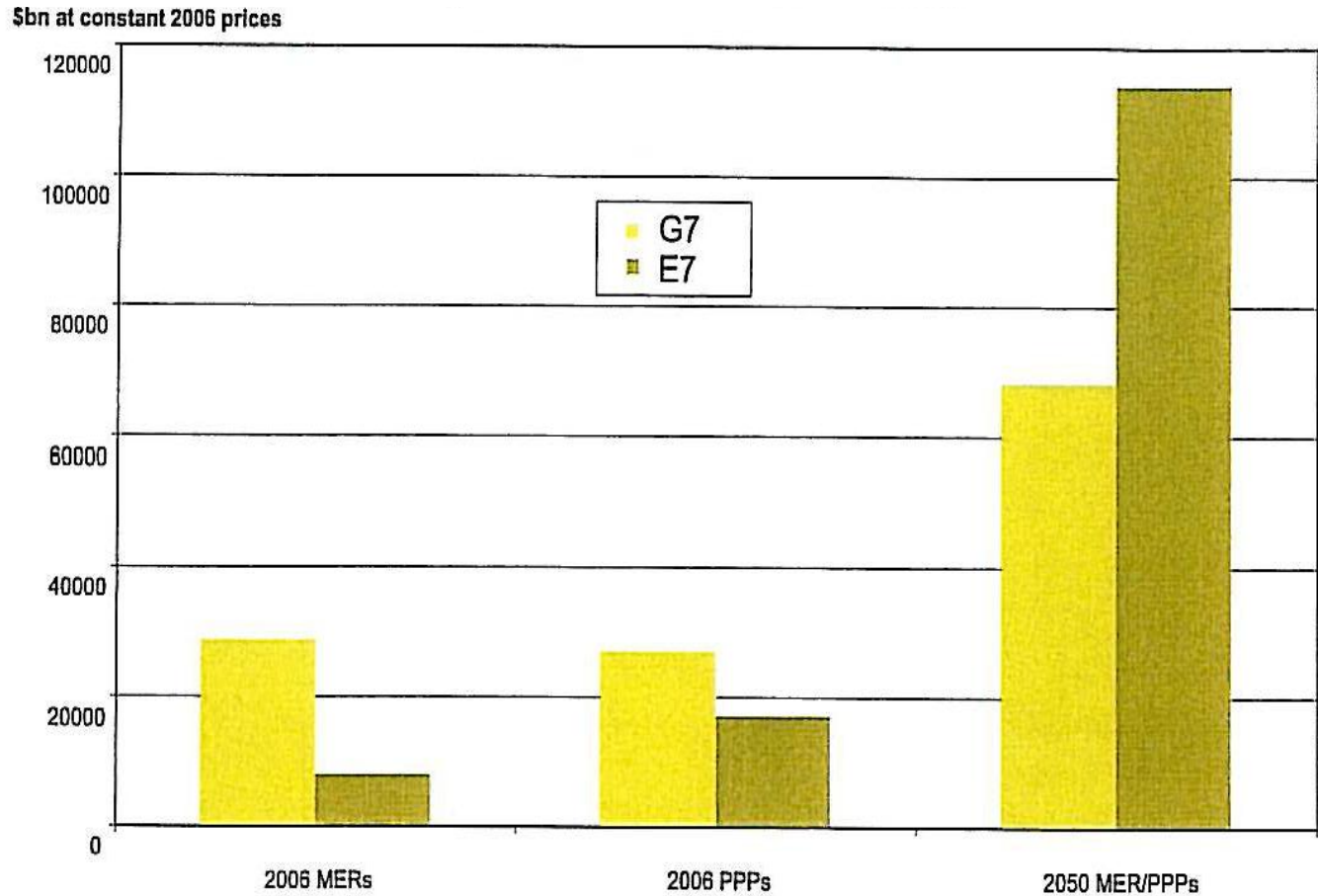
Source: WBGU, 2011



Source: WBGU

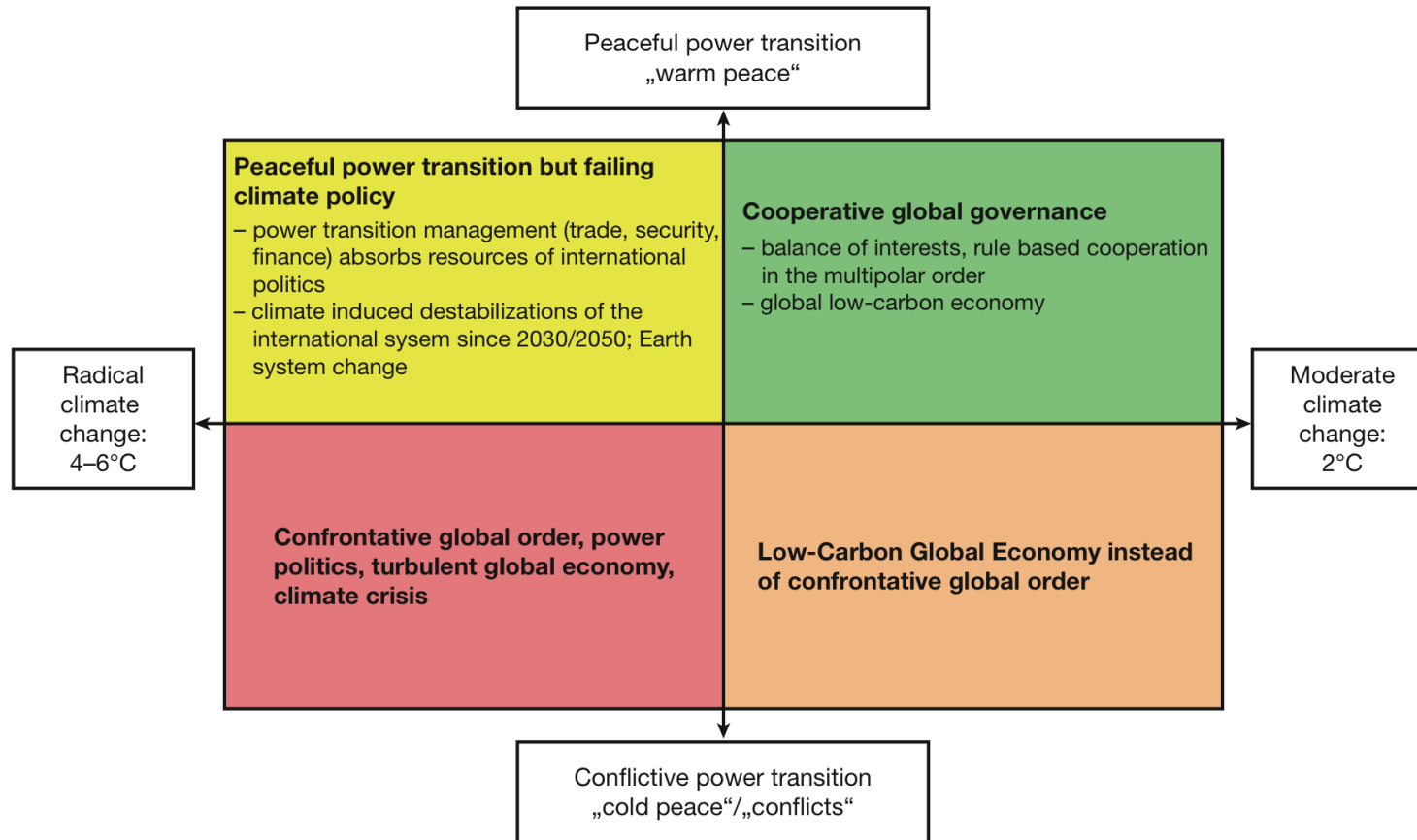
# Relative size of G7 and E7 economies

- China
- India
- Indonesia
- Brazil
- Turkey
- Mexico
- Russia



Source: World Bank for 2006, PwC projections for 2050



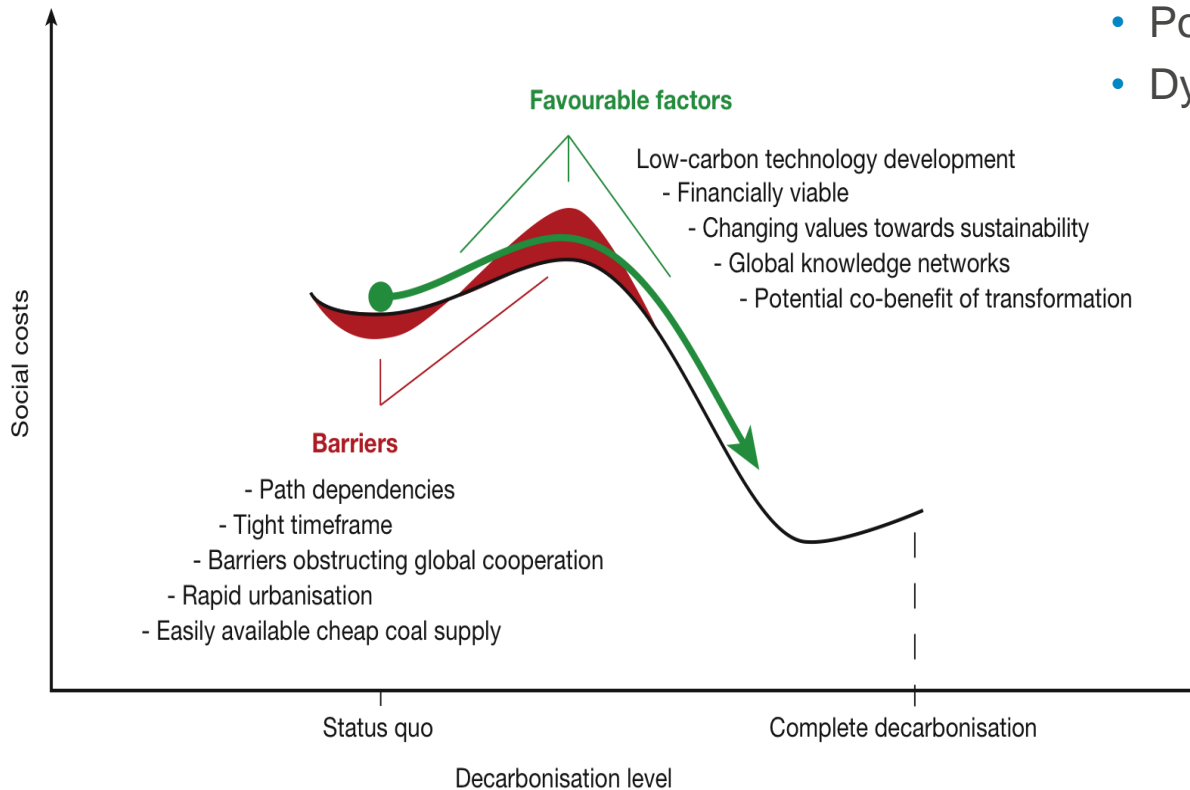


- Scenarios of world political futures in the context of international power shifts and global climate change
- Multilateral architecture is under strong pressure to adapt

Source: Messner, 2009

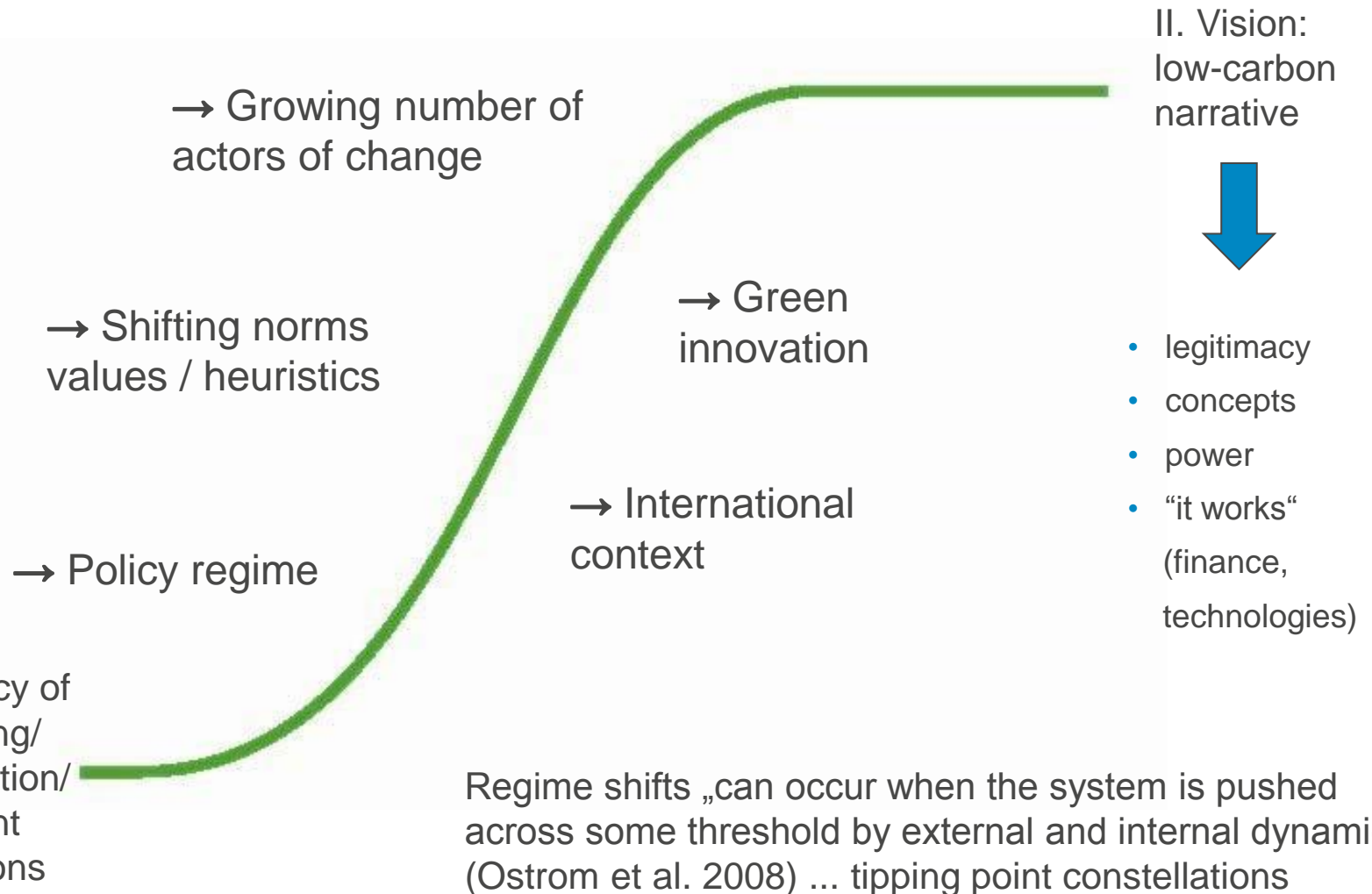
# Five good news ... five major challenges

- Technology assessment
- Costs
- Policy options
- Dynamics of the transformation



Source: WBGU, 2011





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**

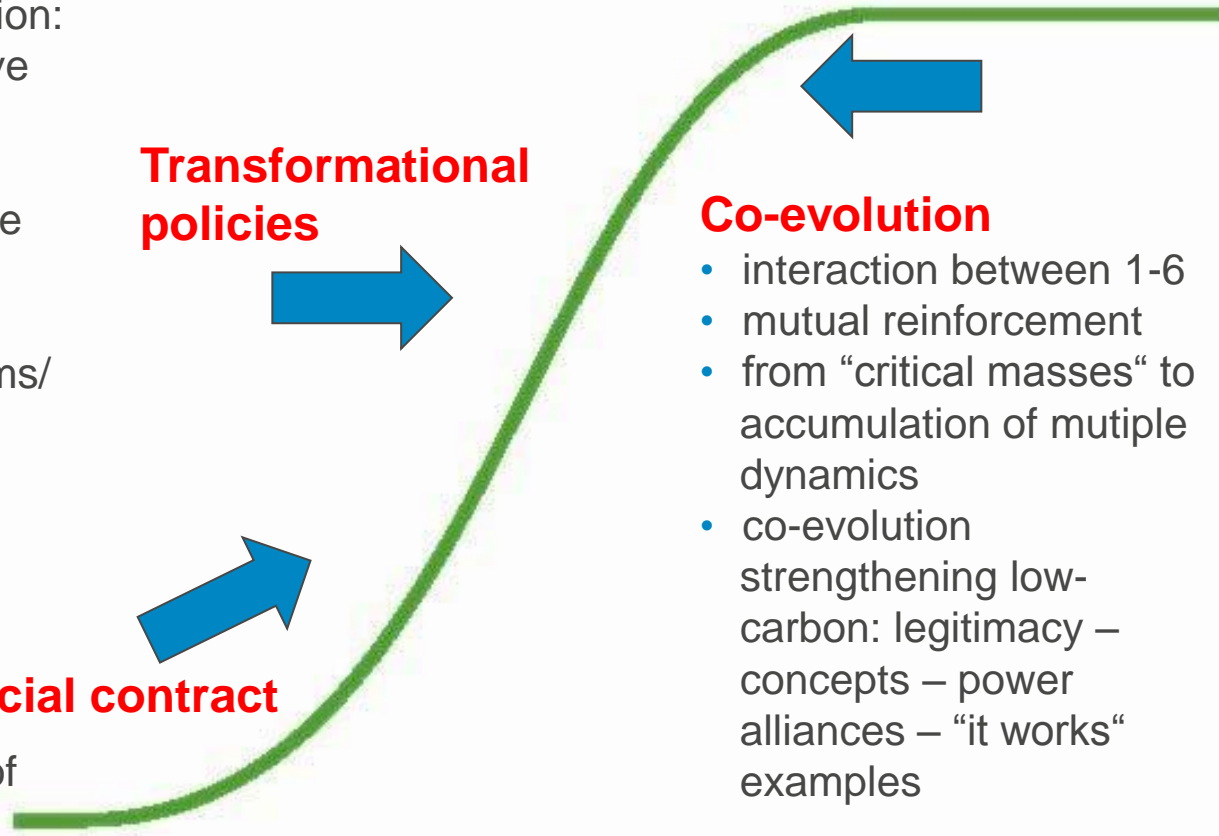
- interaction between 1-6
- mutual reinforcement
- from “critical masses“ to accumulation of multiple dynamics
- co-evolution strengthening low-carbon: legitimacy – concepts – power alliances – “it works“ examples

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

**Social contract**

I. Legitimacy of BAU eroding

Low-carbon becoming the main driving force / new mainstream



1. Discuss which international political processes are most relevant for low-carbon policies and initiatives.
2. Discuss the limits of political initiatives to enable the low-carbon transformation on the one hand and of civil society initiatives on the other.
3. Discuss the acceleration of the technophysical evolution in the past decades and name some of the major milestones.
4. Discuss the power shift from G7 to E7. Which are the main drivers of this process?



### Basic reading:

- WBGU (2011): World in Transition: A Social Contract for Sustainability, chapter 7. Berlin.  
<http://www.wbgu.de/en/home/>

### Further reading:

- Messner, D. (2011): Three waves of global change: the dynamics of global governance in the first half of the 21st century. In: Fues, T. and Liu, Y. (eds.): Global governance and building a harmonious world: a comparison of European and Chinese concepts for international affairs. Bonn: Deutsches Institut für Entwicklungspolitik / German Development Institute, Studies 62, 9-38. [http://www.die-gdi.de/CMS-Homepage/openwebcms3\\_e.nsf/%28ynDK\\_contentByKey%29/ANES-8PJGK8/\\$FILE/Studies%2062.pdf](http://www.die-gdi.de/CMS-Homepage/openwebcms3_e.nsf/%28ynDK_contentByKey%29/ANES-8PJGK8/$FILE/Studies%2062.pdf)
- Fogel, R.W. (1999): Catching up with the economy. The American Economic Review 89, 1-21.
- Grin, J., Rotmans, J., and Schot, J. (2010) Transitions to Sustainable Development. New Directions in the Study of Long Term Transformative Change. London: Routledge.



In cooperation with:



**ZMML**

Zentrum für Multimedia in der Lehre

