

Wuppertal Institute
for Climate, Environment
and Energy

Science in Transition – The Role of Science in Transition

LCS-RNet - Side Event at COP16

Multi-level Policies and Governance for the
Transition to Low Carbon Societies – A
Research-Policy Discourse

December 4th 2010, Cancun Mexico

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The Challenge

- Multiple challenges set our ecosystems and societies under increasing pressure
- As a consequence, the world is in need of a global transition towards Sustainable Low Carbon Societies
- This transition is a major challenge to all societies and to all subsystems within societies
- It cannot be restricted to technology or economy
 - Societal, institutional, and behavioral issues are integrative parts of the solution
- The problems and the challenges
 - Are highly and increasingly complex
 - Their solution becomes increasingly urgent
- Science can and has to play an important role in the transition but has to live up to this new paradigm – the LCS-Rnet strives to be a forum for this

National LCS transition plans are becoming mainstream, but also need to become more holistic and comprehensive

- Plans should include a long-term vision for the whole of society encompassing the role of science, technology, governance, stakeholder engagement, institutional capacities, as well as citizens and consumers.
- Must be developed in a more innovative and integrative manner than traditional policy approaches: create ownership and societal momentum, highlight benefits for all and seek ways to involve potential 'losers', too.
- Creation of a low-carbon society is embedded in an over-arching framework of sustainability and long-term goals that account for factors such as demographics, migration patterns, resource constraints, consumption, and conflicts, among others.
- Strategies for LCS need to be viewed as the core mechanism for future sustainable (economic) development.
- Emerging nations, in particular, envision LCS as an opportunity to capitalise on future global markets.

LCS has to be designed and framed as a positive future in which we want to live

- Broad-based, bottom-up societal engagement and acceptance of LCS will be necessary.
- It is important to make the challenges of the transition transparent and easily understood by society.
 - Challenges include high up-front costs with sometimes uncertain returns on investment and structural changes, among others.
 - However, there are some 'early mover' opportunities as well as risks of inaction
- A low-carbon society implies both the need for a sustainable change in existing structures, and a transformative change in peoples' belief systems, hence:
- Societal behavioural change is a key enabling factor

The Changing Role of Science in Transition – Science Policy Interface

- Citizens, business, stakeholders, government policy-makers and the scientific community use different decision-making frameworks
- Overall, the communication between stakeholder groups, policy-makers, and the scientific community needs to be improved through new strategies and mutual understanding.
- Science can play an important role in enabling communication among different systems of values and beliefs
- Policy-making frameworks are usually guided by immediacy, short-term goals and deadlines
 - Thus, the scientific community has a responsibility to make knowledge more accessible and policy-relevant for decision-makers to affect societal change.
 - This means to develop modes of co-production of relevant knowledge between science and policy.
 - To foster this, an international 'academy for transdisciplinary transition research to a low carbon society' could be founded by the institutional members of the LCS-RNet.

bigEE – bridging the information gap on energy efficiency in buildings



The bigEE web portal (launch: September 2011) will cover

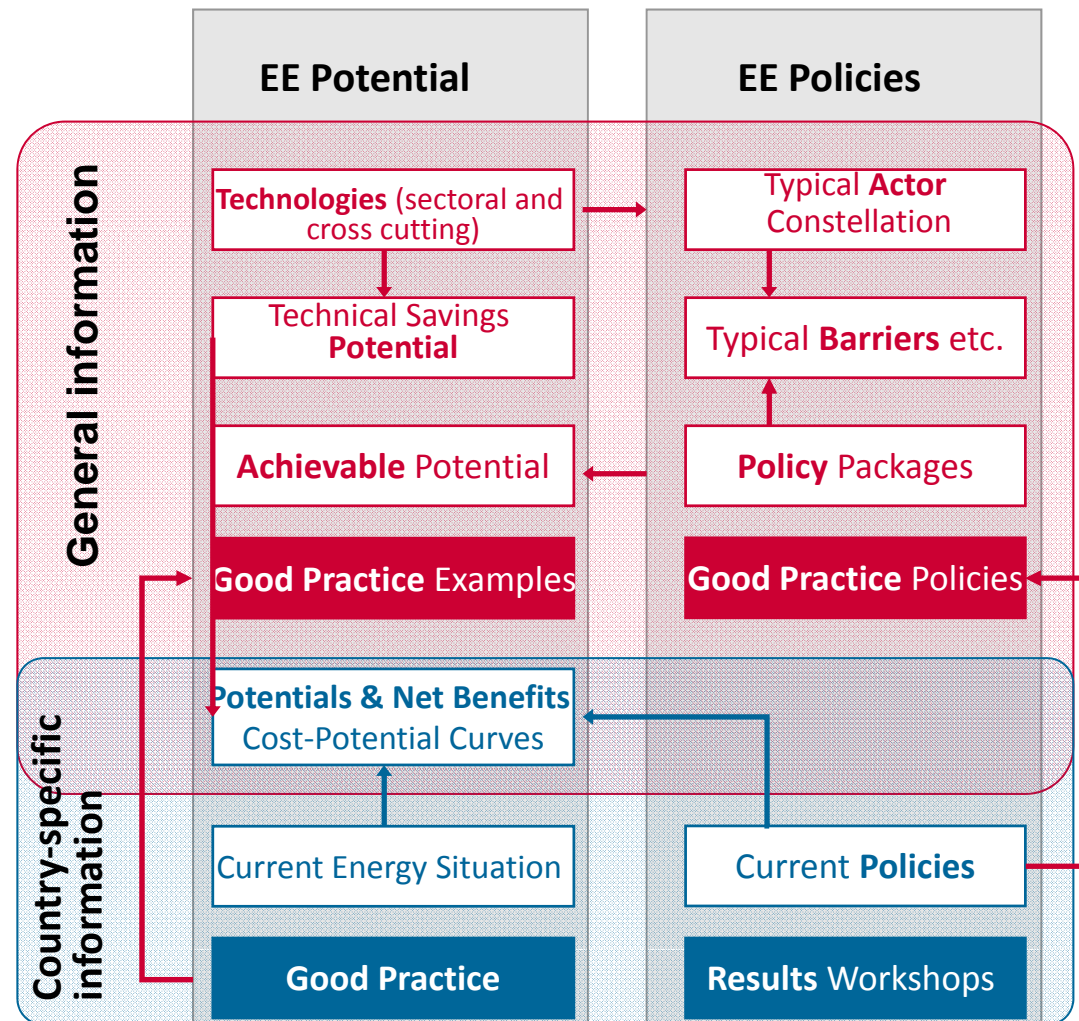
- residential buildings
- commercial / public buildings
- industry sector related building technologies
- appliances

and will include information for policy-makers and investors on

- technologies
- saving options and potentials
- actor constellations
- policies and measures
- good practices

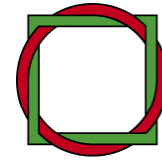
on

- international and
- national level (5 emerging nations).



Conclusion

- Current and coming problems and challenges are increasingly urgent and increasingly complex
- Tackling them needs a broad transition of our societies towards sustainable low carbon societies
- Science can and has to play an important role in guiding and enabling these transitions
- This needs a new understanding of the role and functioning of science – science needs transition, too



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Thank You.

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