

# Transition to Low-Carbon Resilient Societies: From Theory to Reality

Report of the LCS-RNet 5<sup>th</sup> Annual Meeting  
– Accelerating the Transition to Low Carbon Societies –

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COP19/CMP9  
UNITED NATIONS  
CLIMATE CHANGE CONFERENCE  
WARSAW 2013



Japan Pavilion at COP19

19 November 2013



# Accelerating the transition towards low carbon societies

-from theory to reality -

Low Carbon Society Research Network (LCS-Rnet) established in 2009 under G8 scheme

**- Scientific Research Contributing to Low Carbon Policy-making Process -**



The LCS-RNet 5<sup>th</sup> Annual Meeting in Yokohama



Member of Steering Committee, Advisor and Secretary General



IIMA ICAR IIT Delhi IIT Bombay IITM

# OUTLINE

1. Summary of the key findings of the Yokohama meeting;
2. Summary of the various sessions of the meeting;
3. Conclusions.

# Three highlights of the LCS-RNet 5<sup>th</sup> Annual Meeting

## The transition to a low-carbon society is a matter of urgency

The world is entering a huge transition phase historically. For stabilizing climate, now is the time to formulate concrete action plans and implement them, as the world works towards the initiation of a new international climate regime from 2020. In order for society to break free from and avoid having further lock-in to energy-intensive alternatives, it will be imperative to collect and then mobilise global wisdom.

## Use transitions to a low carbon society as powerful leverage for sparking wider transitions

Apart from climate issues, the world today is undergoing transitions in economic and social aspects whilst also confronting major issues such as the economic crisis and poverty expansion. A low carbon society and green economy can be considered as two kinds of effective leverage that have the potential to induce wider transitions towards a sustainable world.

## Three highlights of the LCS-RNet 5<sup>th</sup> Annual Meeting (Cont'd)

Sharing wisdom of both developed and developing countries will be key

Given that a substantial portion of future emission reductions worldwide must be made in developing countries, the activities of this network should be expanded as a means for discussing low-carbon development in both developed and developing countries. In developing countries, it is essential for each country to strengthen ownership of policy process, to establish organizational infrastructure for planning and execution and to clarify their own low-carbon development paths. Funds offered from developed countries must be utilized effectively for such activities.

## **Session title: Transition to Low Carbon Society**

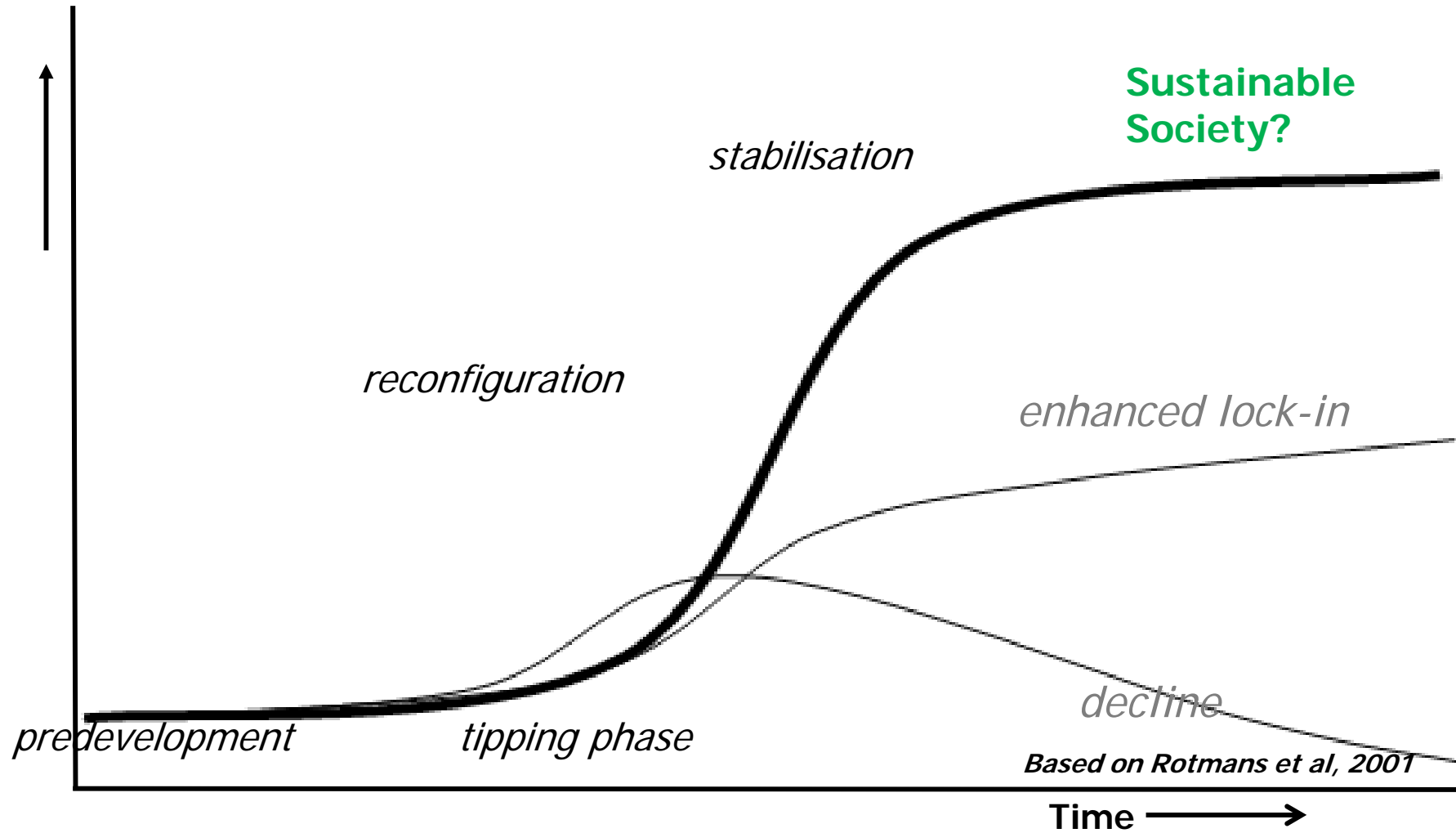
**Speakers: Jim Skea, Imperial College London, UK;  
Derk Loorback, Drift, the Netherlands, Andrea  
Bigano, FEEM/CMCC, Italy**

**Chair: Sergio La Motta, ENEA, Italy**

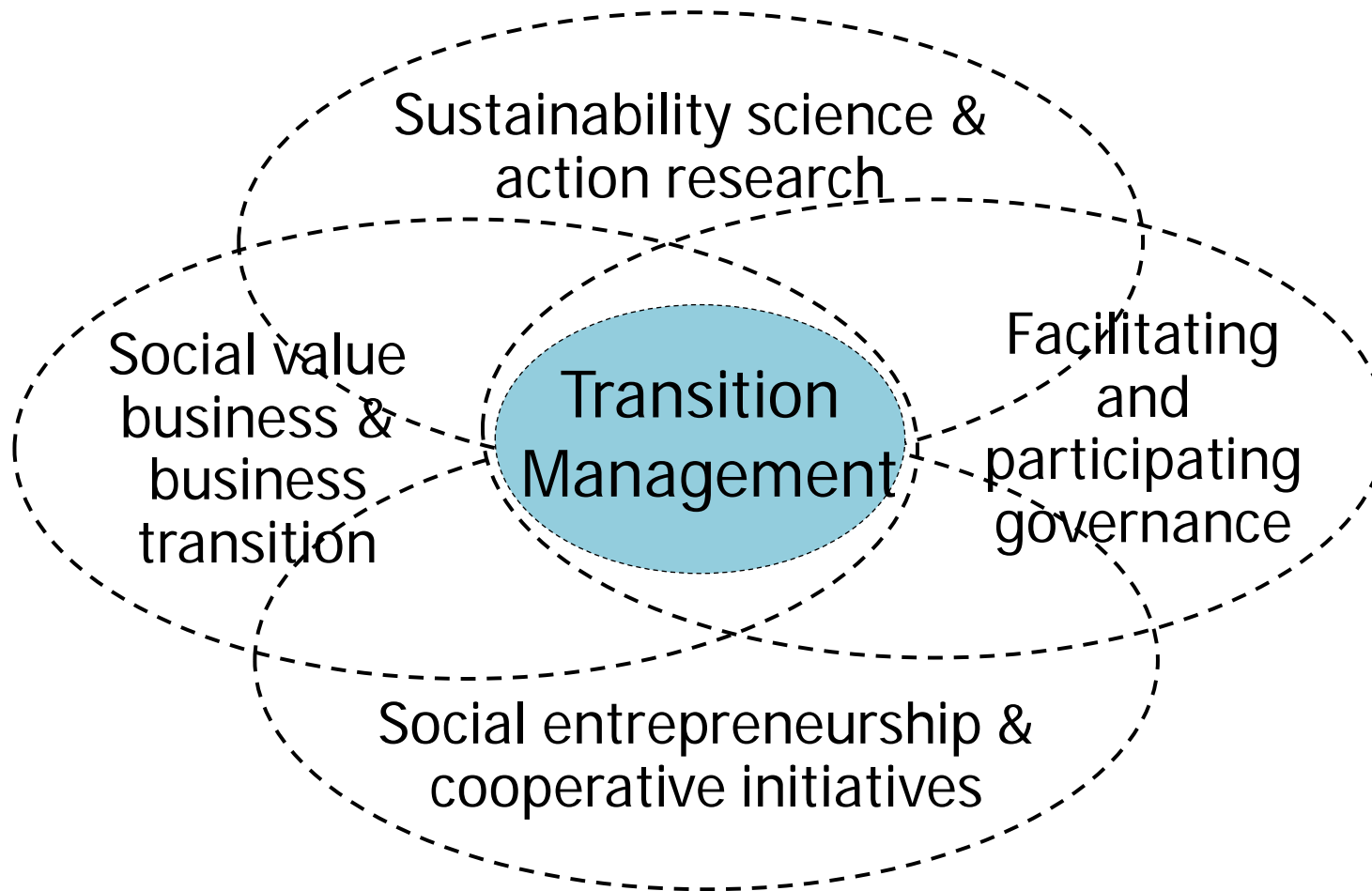
**Key Question addressed:**

**Why is transition to an LCS difficult and how  
can key climate policies contribute to it?**

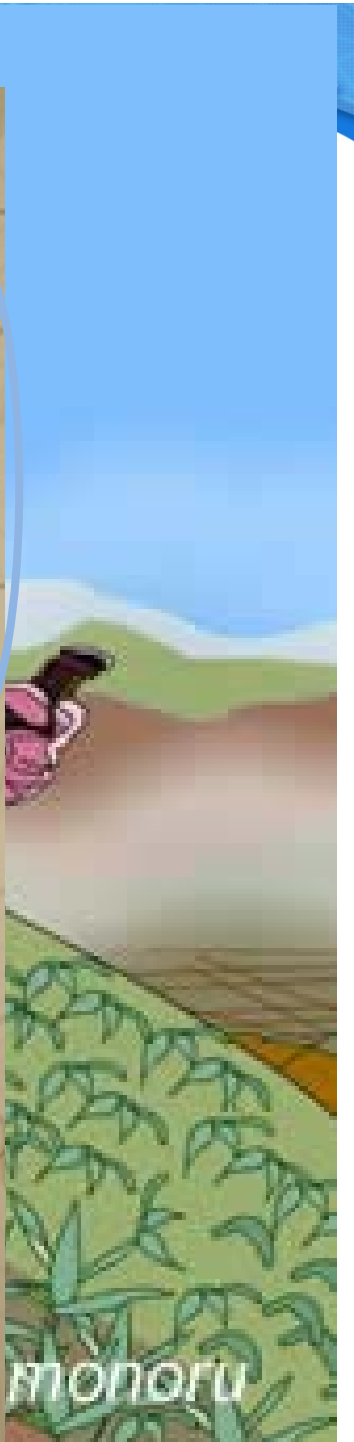
# Transition phases



A transition imply a fundamanetal change in the culture, structure and behaviour







ТОПОГРУ

## **Session title: Low Carbon Future Cities**

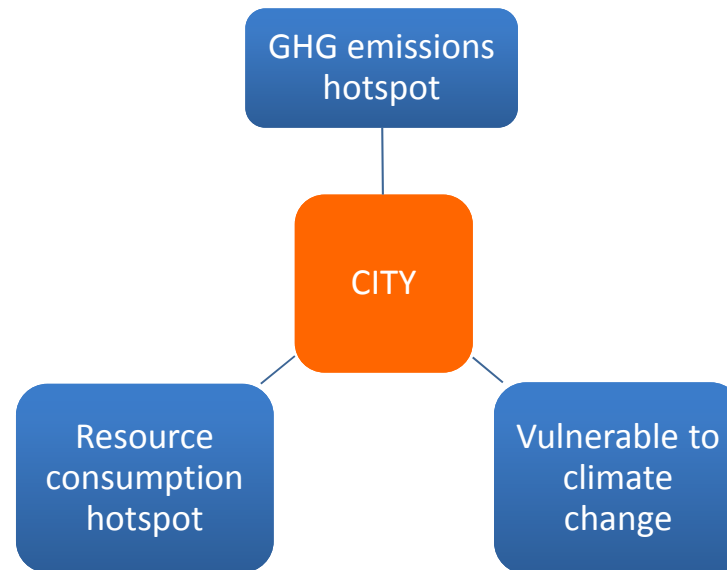
**Speakers:** R. Del Ciello, ENEA, Italy; Tsuyoshi Fujita, NIES, Japan; Chun Xia, WI, Germany; Niels Schulz, UNIDO, Germany.

**Chair:** Derk Loorback, Drift, the Netherlands.

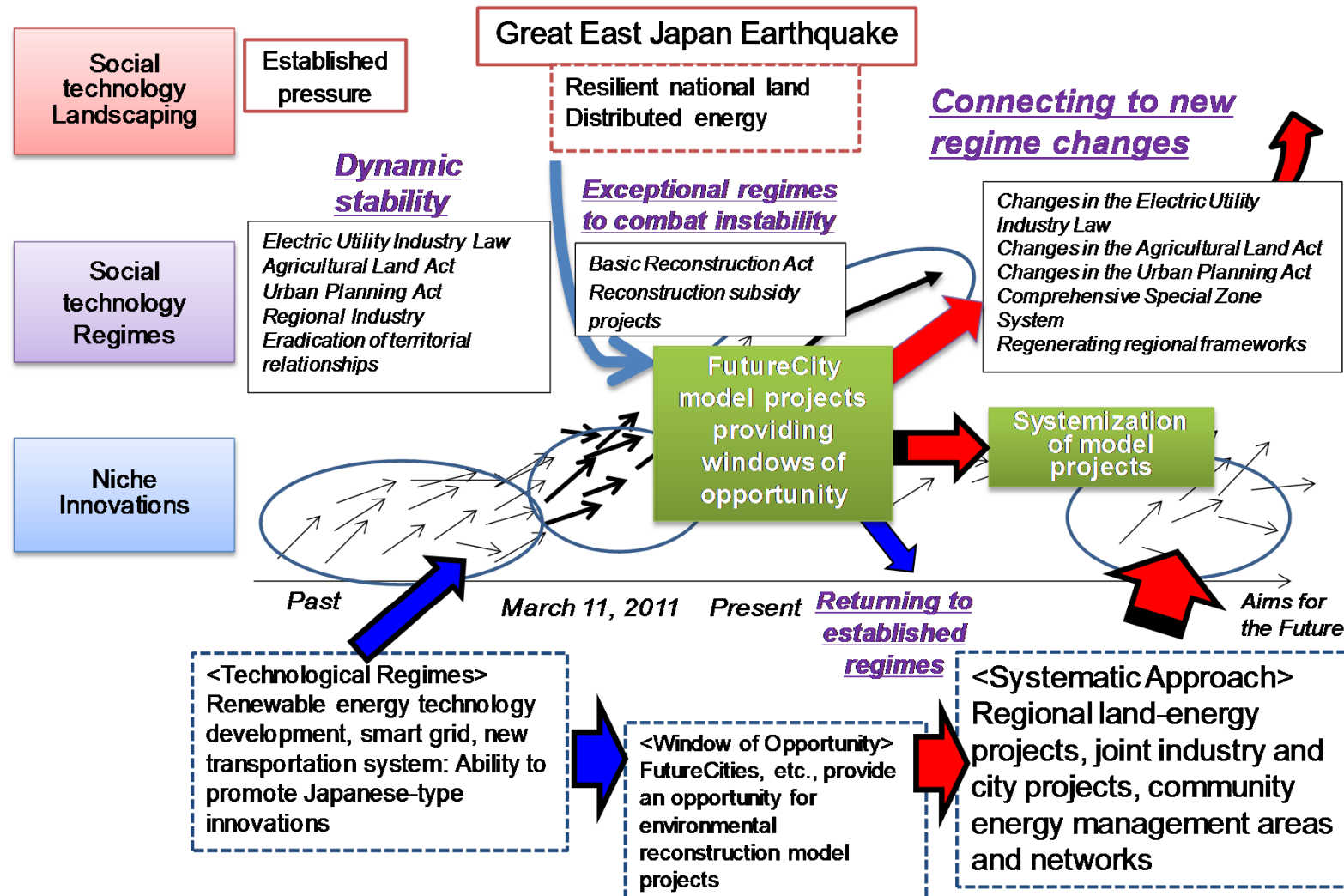
**Key Question addressed:**

**How can a bottom-up approach stimulate a global transition to LCS?**

# The importance of the cities



# Analyzing reconstruction-based town planning with social innovation is a key for low carbon future cities.



## **Session title: Resource Management for Low Carbon Transition**

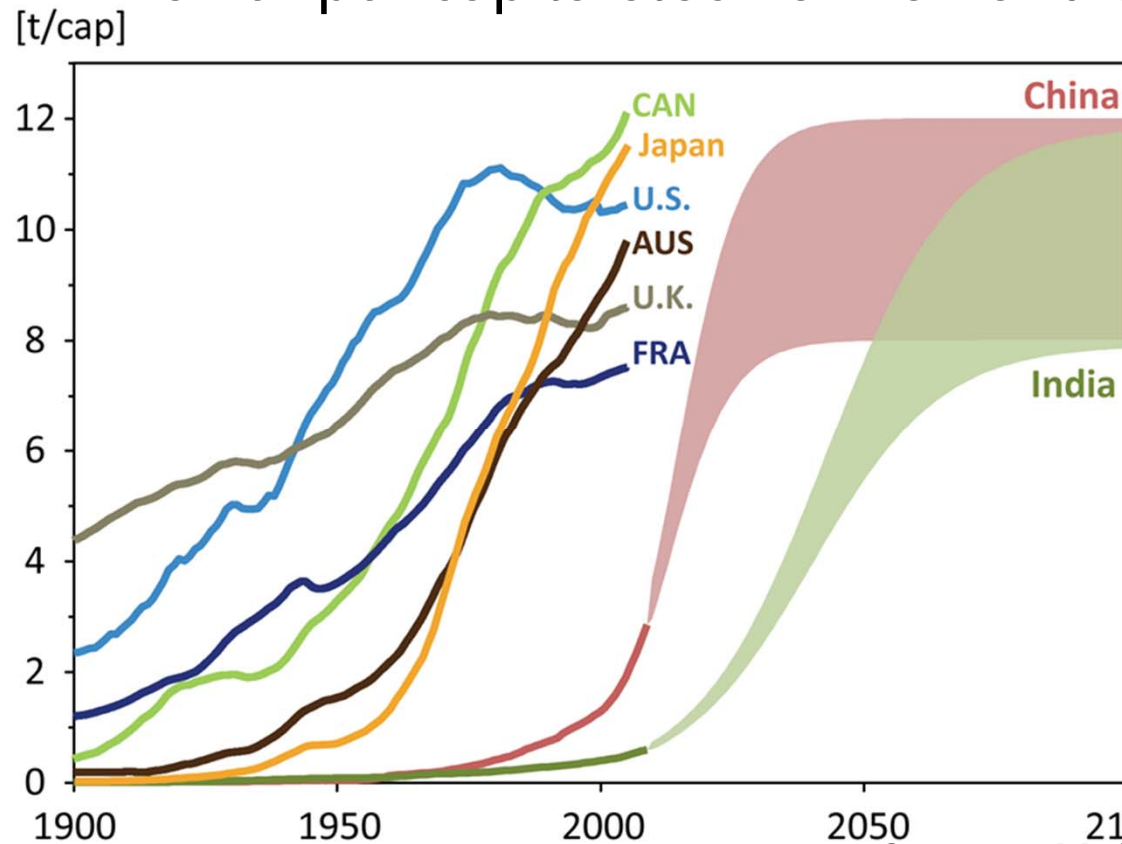
**Speakers: Seiji Hashimoto, Ritsumeikan University, Japan; Julia Nordmann, WI, Germany; Magnus Bengtsoon, IGES, Japan**  
**Chair: Yuichi Moriguchi, University of Tokyo, Japan**

**Key Question addressed:**

**How can material use and efficient product design contribute to realization of a low carbon society?**

Dematerialization (improvement of resource efficiency) will play a major role in reducing demand, as will improving and disseminating technologies to end-users.

### Lower per capita stock of iron and steel



Source: Müller and Wang, 2009

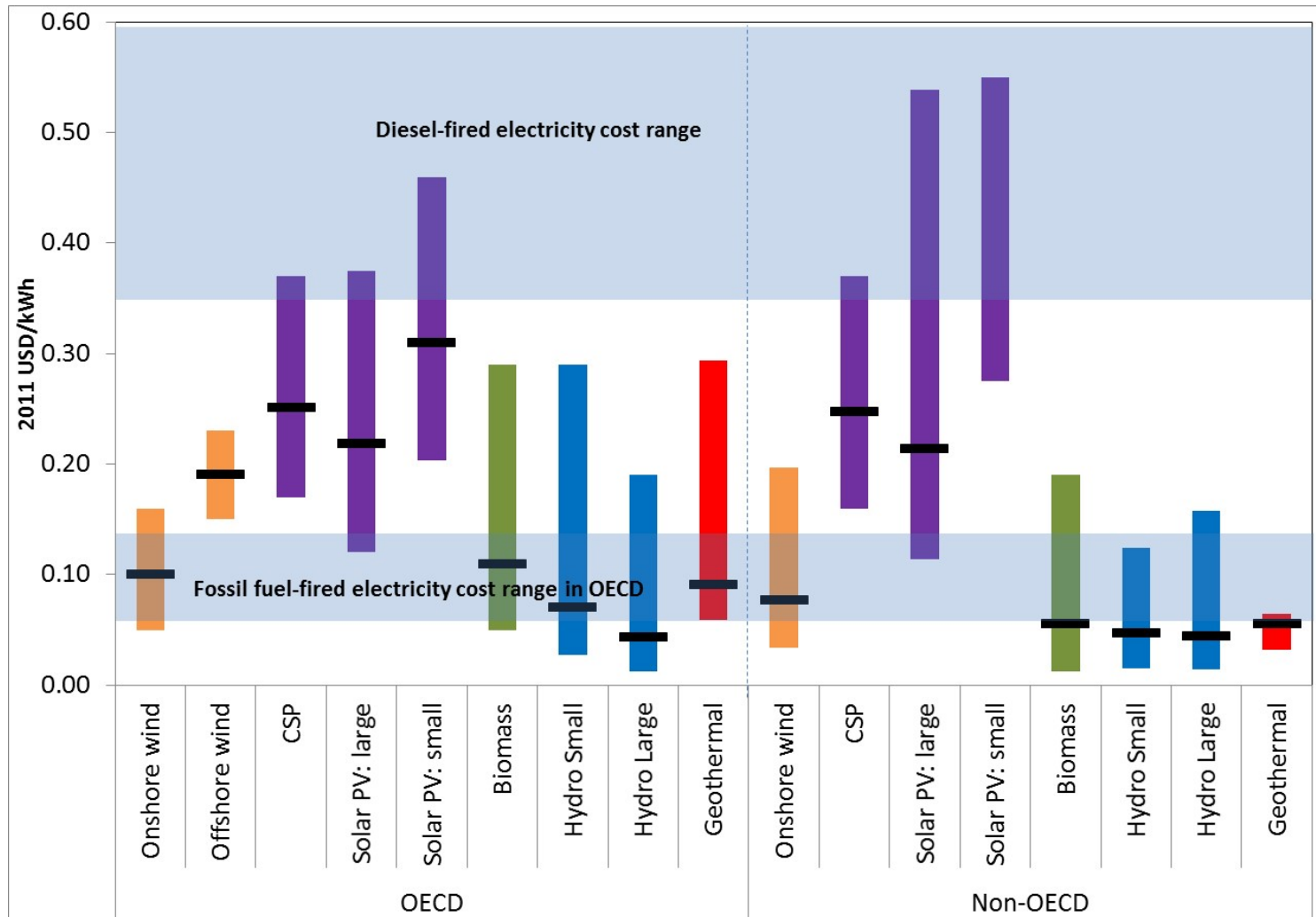
## **Session title: Re-Designing Energy Markets for Green Growth and a Low Carbon Future**

**Speakers: Yuji Matuo, IEEJ, Japan; Ram Shrestha, AIT; Ruud Kempener, IRENA**  
**Chair: P.R. Shukla, IIMA, India**

**Key Question addressed:**

**How can the competition and co-operation of the energy market be bridged to meet the 2 degrees Celsius target?**

# Both competition and cooperation in energy markets are required to achieve 2 degrees target





## **Session title: Financing for Low Carbon societies**

**Speakers: Bindu N. Lohani, ADB; Marinella Davide, CMCC, Italy; Baptiste Perssin Faber, CIREF, France**

**Chair: Tomonori Sudo, JICA, Japan**

**Key Question addressed:**

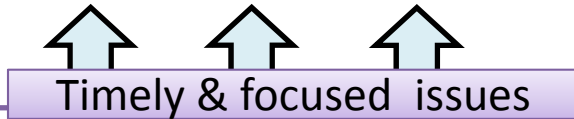
**How can we find, tack and scale-up the flow of finance in climate change actions?**

# Challenges and Opportunities

- **Climate change finance:** There is a need to develop an agreed definition of climate change finance so as to be able to track such finance more accurately and to pinpoint the focus of negotiations regarding climate change finance.
- **Scale up:** Development finance institutions should work as catalysts to leverage climate change finance and as developers of risk sharing schemes and knowledge sharing platforms in order to scale up climate change finance.
- **Instrument:** Traditional financial tools are not necessarily addressing funding needs toward low carbon societies. It is necessary to develop new instruments to increase finance in actions that contribute to creating low carbon societies.

# Low Carbon Society Network : The Way Forward

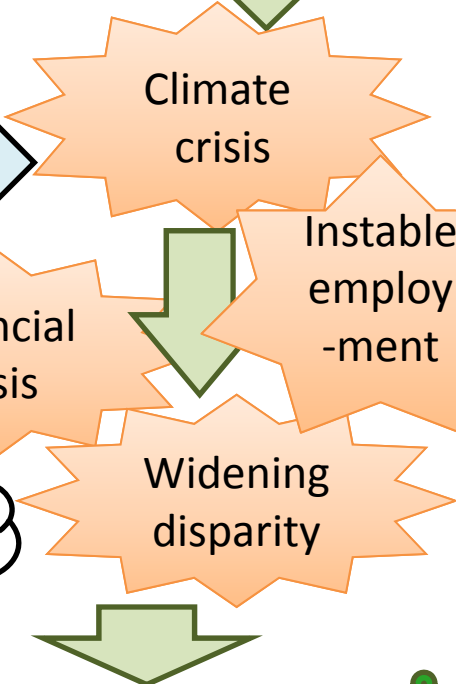
An experts' community who dedicates to scientific & practical policy making  
UNFCCC process



Demand/supply integrated energy system; Carbon pricing measures; Multi-layer governance; Dematerialization; Low carbon investment; City as lead transformer; Technology transfer; Interaction between mitigation & adaptation; Communication tool among stakeholders; Lifestyle change

**Low Carbon & Resilient Society/  
Green economy  
as leverage to SD**

**Tools & methods**  
Policy dialogues between policymakers & experts community/ Web discussion/Focused workshop Larger assembly/Policy brief/Journal



**Organizational structure**

**Low Carbon Society Network**  
Steering members + Secretariat

Developed/Developing countries' cooperation

**LoCARNet**  
Low Carbon Asia Network



**Sustainable world**

# Conclusions

1. **Vision:** A global vision and a set of coordinated policies and measures are necessary to direct investment towards low carbon project/programmes at the global level.
2. **Governance:** Cooperation is essential if social and environmental goals are to be achieved; while competition will help to achieve goals cost-effectively.
3. **Economy:** Delays in the transition will cause lock-in of the economy into less cost-effective alternatives. Transitioning to a low carbon society can stimulate the economy and create new industries.
4. **Scale:** Local (e.g. City) level actions can accelerate the transition to low carbon societies at a global scale.
5. **Social:** The transition to a low carbon society will imply fundamental changes in the underlying culture, structure and behaviour of societies.

# Thank you for your attention!

<http://lcs-rnet.org/>