

## General info

### What is the exact title of the session?

Green Innovation: cleaning up Industry or cleaner Industry

### What is the timing?

Thursday 1<sup>st</sup> of July at 11.15 – 12.30

### What is the framework of the session?

'Green growth' is gaining momentum internationally. In the US alone up to \$100 bn. has been earmarked for R&D in President Obama's recovery package. In Europe, research is far behind and is not resulting in a real market. How can Europe commercialize sustainable energy solutions based on biomass, hydropower, wind and geothermal technologies, and also set better eco-standards? In the post-crisis era economic developments require a rethinking for all the actors involved in the innovation ecosystem. Aspects such as sustainability, environmental friendliness and social compatibility must be taken into account when creating and marketing new products and services. Green technologies are the solution to sustainability. However, is today's technology sufficient to replace the existing non-sustainable mechanisms?

## Introduction: the topic

*Day by day it is becoming clearer that a rising population, global economic growth and current consumption patterns are placing an increasingly heavy strain on our planet. The rising demand for energy and crucial efforts to reduce CO<sub>2</sub> emissions are intensifying pressure on corporate players to move to the next level and take action to combat climate change.*

There are two main ways in which businesses can help to create a greener economy. First and foremost, they can take their own internal measures to reduce their environmental footprint. Such measures may take the form of being energy-efficient (building sustainable offices, installing energy-efficient lighting, purchasing sustainable materials, etc.) and/or generating their own energy in a sustainable manner (e.g. using solar panels, wind turbines or cogeneration technology). Secondly, they can also make a significant contribution by bringing to the market 'green' products, technologies and services capable of meeting today's – and tomorrow's – needs in an efficient manner.

This latter aspect, the so called clean-tech market is already a large and growing market today but will become one of the world's main industries by 2020 after automotive and electronics, according to a report from WWF and Roland Berger<sup>1</sup>. An INSEAD study<sup>2</sup> confirms that European industry is a world leader in terms of efficient use of energy. Europe also scores highly in eco-innovation in general and patent registrations in the fields of renewable energy and motor vehicle abatement technologies in particular. By contrast, however, we ranked less highly when it comes to supporting breakthrough technologies to concrete actions. On the one hand Europe lags some way behind North America in terms of venture capital (VC) investment in clean technologies. On the other hand our social economic landscape does not favour the growth of ideas.

<sup>1</sup> Clean Economy, Living Planet : Building strong clean energy technology industries, WWF & Roland Berger, nov 2009.

<sup>2</sup> Greening the Economy: Creating a Climate for Change, 2008, Insead

Europe has the key tools it needs to be able to compete effectively and, indeed, to conquer the global eco-innovation market. But with other regions, such as America raising its game, Europe absolutely cannot afford to miss this opportunity.

## Main issues at European level

The EU Growth and Jobs and Sustainable Development Strategies place particular emphasis on the potential of pursuing economic growth while securing a high level of environmental protection. Innovation is central for this pursuit and the European innovation policy aims at a shift towards a knowledge-based and resource-efficient economy. These strategies led to the development of the EU Environmental Technologies Action Plan (ETAP) launched in 2004. The Action Plan aims to stimulate eco-innovation and the take-up of environmental technologies on a broad scale to better protect the environment and contribute to competitiveness and growth.

A new EU Innovation Plan is in the making and it will aim at being a comprehensive policy strategy to harness innovation for more sustainable growth and development, and to address the key societal challenges of the 21st century in line with the EU2020 vision. One of the Action Plan's specific objectives is to ensure that the EU sustains its competitive advantage in developing and applying eco-innovations. Compared to the old ETAP the focus will be on all aspects of eco-innovation and not only technologies. Next to that this plan will increase the focus on SMEs.

## Challenges in the short and long term

### Challenges in the short and long term

Just like innovation in general, green product and technology development are following an innovation cycle. In every innovation phase challenges can be found:

#### RESEARCH PHASE

- Efficient EU patent system
- Increase the budget of early-stage research
- « Science for Businesses »: better alignment between research & business

#### BREAKTHROUGH

- Adequate availability of Venture capital with sufficient scale to be able to compete with other regions
- Avoid waste of innovation
- Build up practical knowledge
- Stimulate « entrepreneurship »
- Help potential young innovative companies to break through
- Bring the right persons together

#### COMMERCIAL ROLL OUT

- Making new technologies competitive (closing the cost gap with mature technologies)
- Create lead costumers (lead markets)

#### DIFFUSION AND MATURITY

- Safeguard European competitiveness
- Create stable regulative framework

- Enable EU producers and services providers to expand their trade and investments in other markets/countries

## Possible questions to be discussed during the session

### 5 Most relevant questions to be discussed during this session

*Discussion/questions can be divided following the innovation cycle*

#### Question 1: R&D

- Does an efficient community patent system will help Europe to compete more?
- Is a re –orientation of Europe’s R&D budget needed?

#### Question 2: BREAKTHROUGH

- Which measure can Europe take to close the VC gap with the USA ?
- Does Europe have to work actively on international standardisation for streamlining product innovation? In which sectors?
- How can entrepreneurial thinking be more incorporated in Europe’s minds?

#### Question 3: COMMERCIAL ROLL OUT

- How can Europe reduce investment costs for companies (green banking)?
- Does a rational green public procurement help Europe’s cleantech market?

#### Question 4: DIFFUSION AND MATURITY

- How can Europe promote European innovative companies on international level more? (via EU diplomacy?)
- Which EU strategy is needed to implement EU projects more in the developing countries?

## Further reading

### Provide 3 interesting web-links for further reading

1. [European Strategic Energy Technology Plan \(SET\)](#),
2. [European eco-innovation](#)
3. [Belgian eco-business leading the way](#)

### Provide 3 articles/books for further reading

1. Clean Economy, living planet: Building strong clean energy technology industries, November 2009, R. Berger
2. Green Investing 2010: Policy Mechanisms to Bridge the Financing Gap, January 2010, World Economic Forum

PUTTING EUROPE

**BACK ON TRACK**

**Green Innovation: cleaning up Industry or cleaner Industry**

**Briefing Note**  
**Session 10**



3. Eco-innovation in Industry: enabling green growth, OECD, 2009.
4. Study on the Competitiveness of the EU eco-industry, 22 October 2009, Ideaconsult

