

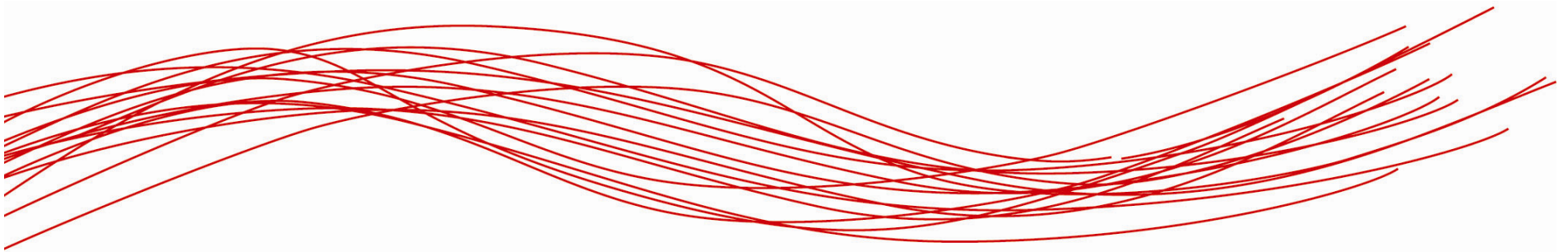


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# Better approaches to commercialisation of R&D results

Brussels, 25 June, 2009



## FP7 opportunities for environmental technologies

Andrea Tilche



# ETAP, eco-innovation and environmental technologies

The **Environmental Technologies Action Plan** promoting eco-innovation and the market take-up of environmental technologies.

- **Eco-innovation:** all forms of innovation reducing environmental impacts and/or optimising the use of resources.
- **Environmental technologies:** all technologies whose use is less environmentally harmful than relevant alternatives.



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# Why to invest in Environmental Technologies RTD

- Benefit for **People**
- Benefit to the **Planet**
- Benefit for the **Business**

*Sustainability Pillars*



# The current economic downturn

- Not a cyclic crisis
- Need for a more strategic approach to design the recovery path
- Combination with the need to build a low-C economy
- Environmental Technologies and Eco-innovation become the key elements for future growth

# Vision for Tomorrow

- **All** industry becomes “**green**”!
- eco-innovation, environmental technologies across all sectors
- Need fundamental transformations – not just “**add ons**”
- Make use of ecological principles: life-cycle, diversity, symbiosis, bio-compatible...

# Global opportunities

## Eco-industries contribute to growth and jobs

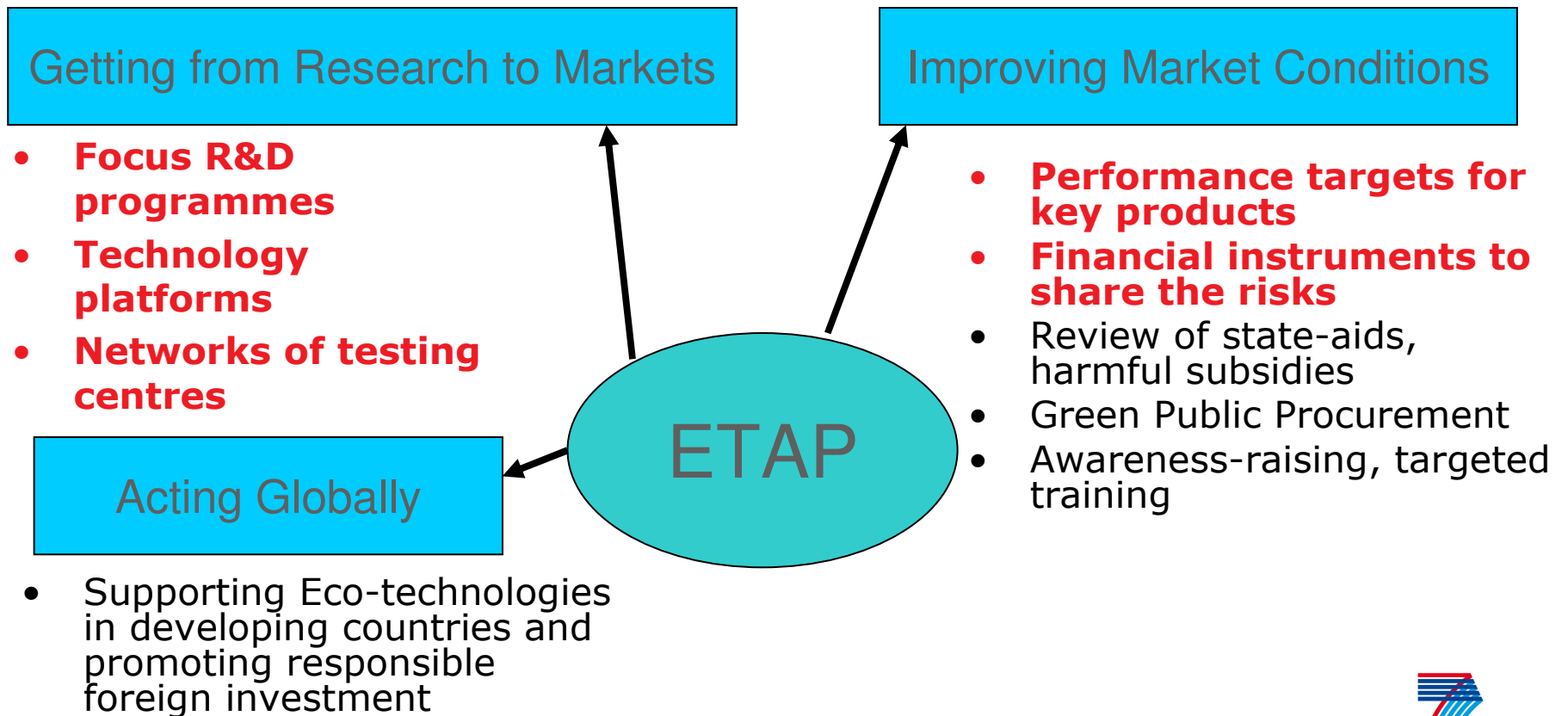
- 2.1% of EU GDP, 3.5 million jobs
- In a more extended definition of eco-industries, these statistics can be more than doubled
- growth over 20% for wind and solar energy
- growth above average and exports for water, waste technologies

## Clean Technologies attract more attention and funding

- 10% of Venture Capital funding in Europe (€2 billion)
- €1 billion for Climate Change Financing Facility



# Priority actions in ETAP and Research contribution



## Contribution of the 6<sup>th</sup> and 7<sup>th</sup> Framework Programmes to ETAP related actions

- About **1.4** billion € under FP6 for environmental technologies after ETAP
- In whole FP7, approximately **10** billion € on R&D funding for environmental technologies
- About **44%** of FP7's budget directly related to sustainable development
- **37%** of topics support R&D funding for green technologies in the first three FP7 Work Programmes

# From Eco-Innovation to Innovation: assuring that green is really green

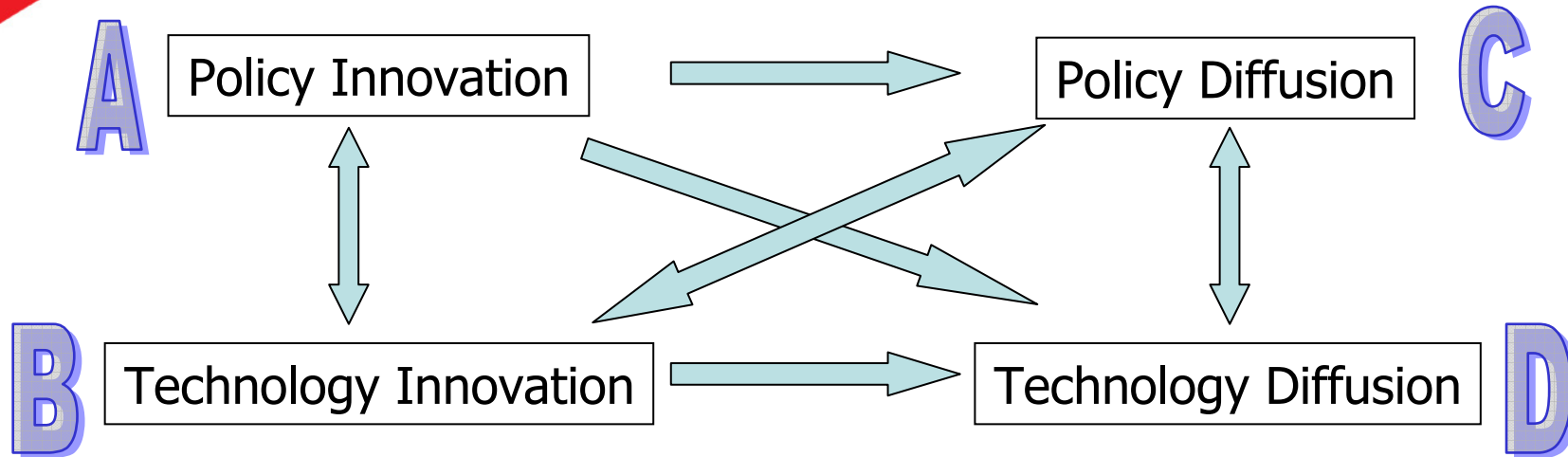
We are convinced that, due to the combined effect of the financial crisis and of the climate change challenge, in the future **all innovation should also be eco-innovation.**

The potential environmental impacts of an innovation should be already assessed when the research is still on-going (eco-design). This requires the implementation of specific evaluation criteria based on **Life Cycle Thinking.**

Before an innovation is scaled-up from pilot to demonstration scale, an assessment based on **Life Cycle Assessment** should be carried out in order to verify if the innovation is an eco-innovation.

Future pervasive technologies however should be assessed in terms of **Sustainability Assessment**, using methodologies that are now being developed i.e. in FP7 projects.

# Diffusion patterns of Environmental Innovation (Jänicke 2000)



## Policy induced Diffusion

**Technology forcing:** (A⇒B⇒C⇒D):  
e.g. US-Car Emission Standards (1970)

**Political Initiative:** (A⇒B⇒D⇒C):  
e.g. Pollutants substitution

**Political Dominance:** (A⇒C⇒B⇒D):  
e.g. ??

## Technology induced Diffusion

**Technology Initiative:** (B⇒A⇒C⇒D):  
e.g. wind energy

**Technological Dominance:** (B⇒A⇒D⇒C):  
e.g. CHP Technologies

**Autonomous Diffusion:** (B⇒D): rare,  
e.g. energy efficiency in industry

# Supply-side, vs demand-side measures

- Supply-side:
  - Research funding
  - Funding to innovation
  - ...
- Demand-side
  - Environmental regulations
  - Feed-in tariffs
  - ETS
  - ...

# A European economic recovery plan

- **Adopted by the EC on 26 Nov 2008 and endorsed by the EU Council on 11-12 Dec 2008**

*"To support innovation in manufacturing, in particular in the construction industry and the automobile sector, which have recently seen demand plummet as a result of the crisis and which also face significant challenges in the transition to the green economy..."*

- **...three Public-Private Partnerships (PPPs) are proposed:**

- **European green cars initiative**
- **European energy efficient buildings initiative**
- **Factories of the future initiative**

## PPPs Total resources: 2010-2013\*

(M€)	EU Green Car	Energy efficient Buildings	The Factories of the future
<b>2010</b>	65	60	80
<b>2011</b>	85	85	130
<b>2012</b>	115	140	160
<b>2013</b>	115	215	230
<b>Total Public budget</b>	<b>500</b>	<b>500</b>	<b>600</b>
<b>Total Private budget</b>	500	500	600
<b>Grand total</b>	<b>1000</b>	<b>1000</b>	<b>1200</b>

\*The EC budget comes from the FP7 Cooperation Specific Programme Themes NMP (Industrial Technologies), Energy, Environment, Information and Communication Technologies, Transport.



# Environment Theme WP 2010 – Green Cars

- Green Car Initiative:
  - Joint Call on Batteries, NMP-ENERGY-TRANSPORT-ENV (25 M€):
    - 5M€ each from ENV, ENERGY and TRANSPORT
    - 10 M€ from NMP
    - 1 single topic: **Materials, technologies and processes for automotive electrochemical storage applications (ENV.2010.3.1.3.3)**
    - Expected to fund several small-medium size Collaborative Projects
    - NMP leading Directorate, single Authorising Officer
    - Opinion given by the Specific Configuration PC
    - Common evaluation, pool of POs from all Directorates for management

# Environment Theme

## WP 2010 – EEB

- Energy Efficient Buildings
  - Cross-thematic call among NMP, ENERGY, INFISO, TREN, ENV
    - **ENV.2010.3.2.1.1 Compatible solutions for improving the energy efficiency of historic buildings in urban areas**
      - Large-scale Collaborative Project, max EC contribution 5 M€

# WP2010 structure for Env. Tech.

- **Sub-Activity 6.3.1 Environmental technologies for observation, simulation, prevention, mitigation, adaptation, remediation and restoration of the natural and man-made environment**
  - Indicative available budget 2010: EUR 51.5 million
  - **Subjects:**
    - energy-efficient technologies for urban water services
    - municipal ww sludge treatment
    - decentralised water supply and sanitation for peri-urban and rural areas in Africa
    - water harvesting technologies in Africa
    - construction and demolition waste recycling
    - Innovative solutions for municipal waste treatment
    - innovative materials and technologies for batteries
    - prevention of pollution through clean processes in Mediterranean partner countries
    - environmentally-friendly technologies for urban construction sites
    - brownfield regeneration
    - air pollution monitoring technologies
    - long-term carbon sequestration technologies
    - Era-net on eco-innovation

- **Sub-activity 6.3.2. Protection, conservation and enhancement of cultural heritage, including human habitat**
  - Indicative available budget for 2010: 8,5 M€
  - **Topics:**
    - non-destructive diagnosis technologies for cultural heritage objects
    - compatible solutions for improving the energy efficiency of historic buildings in urban areas, in the context of the European Economic Recovery Plan
- **Sub-activity 6.3.3. Technology assessment, verification and testing**
  - Indicative available budget: 4,5 M€
  - **Topics:**
    - new eco-toxicological testing methods for chemicals reducing and replacing animal tests
    - development of simplified LCA methodologies and tools for SMEs in different industrial sectors

# Info-days

- 13th July at Charlemagne on the PPPs
- 17th September at CCAB on Environmental Technologies
- 18th September at CCAB on Africa Call
- 28-29th September on Green Cars



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***Thank you for your attention***

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