

# **Key enabling technologies**

## ***Tapping into the potential of high-technologies***

***Michel CATINAT***

***CLORA – 25 Mai 2011***



**European Commission**  
Enterprise and Industry

# The KETs Initiative

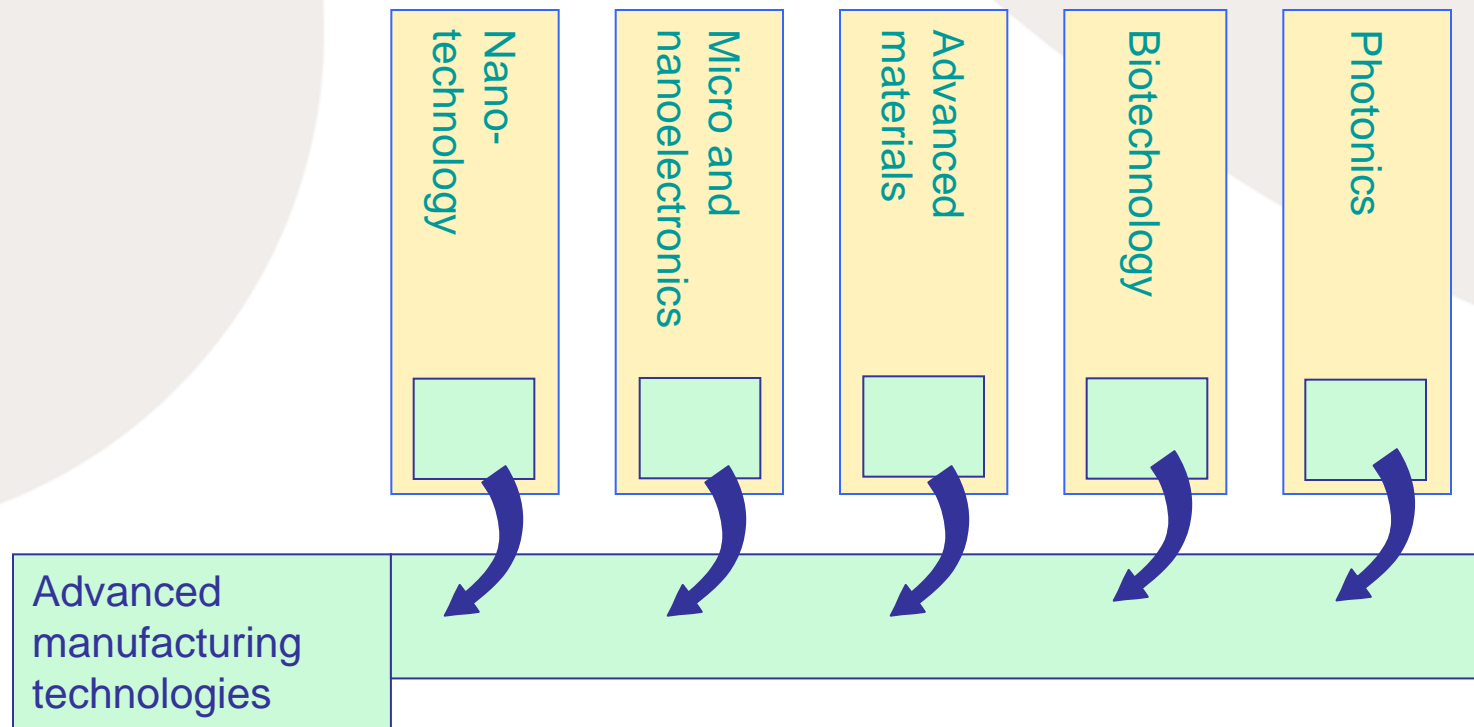
# The KETs Communication

- Despite good R&D capacities in KETs, the EU is less successful in **capitalising** on these results.
- A more **strategic approach** is required to deploy these technologies in the EU.

## Communication on Key Enabling Technologies – Sept 2009

- Identifies the KETs that strengthen the EU's industrial and innovation capacity to address the societal challenges ahead
- Proposes a set of policy measures to improve the related framework conditions.

# Five Key Enabling Technologies + 1



# Importance of KETs on the EU policy agenda

## Europe 2020 and its flagship initiatives

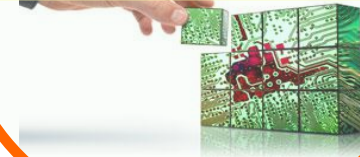


Brussels, 6.10.2010  
COM(2010) 553 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS

Regional Policy contributing to smart growth in Europe 2020

### Key Enabling Technologies



An Industrial Policy for  
the Globalisation Era



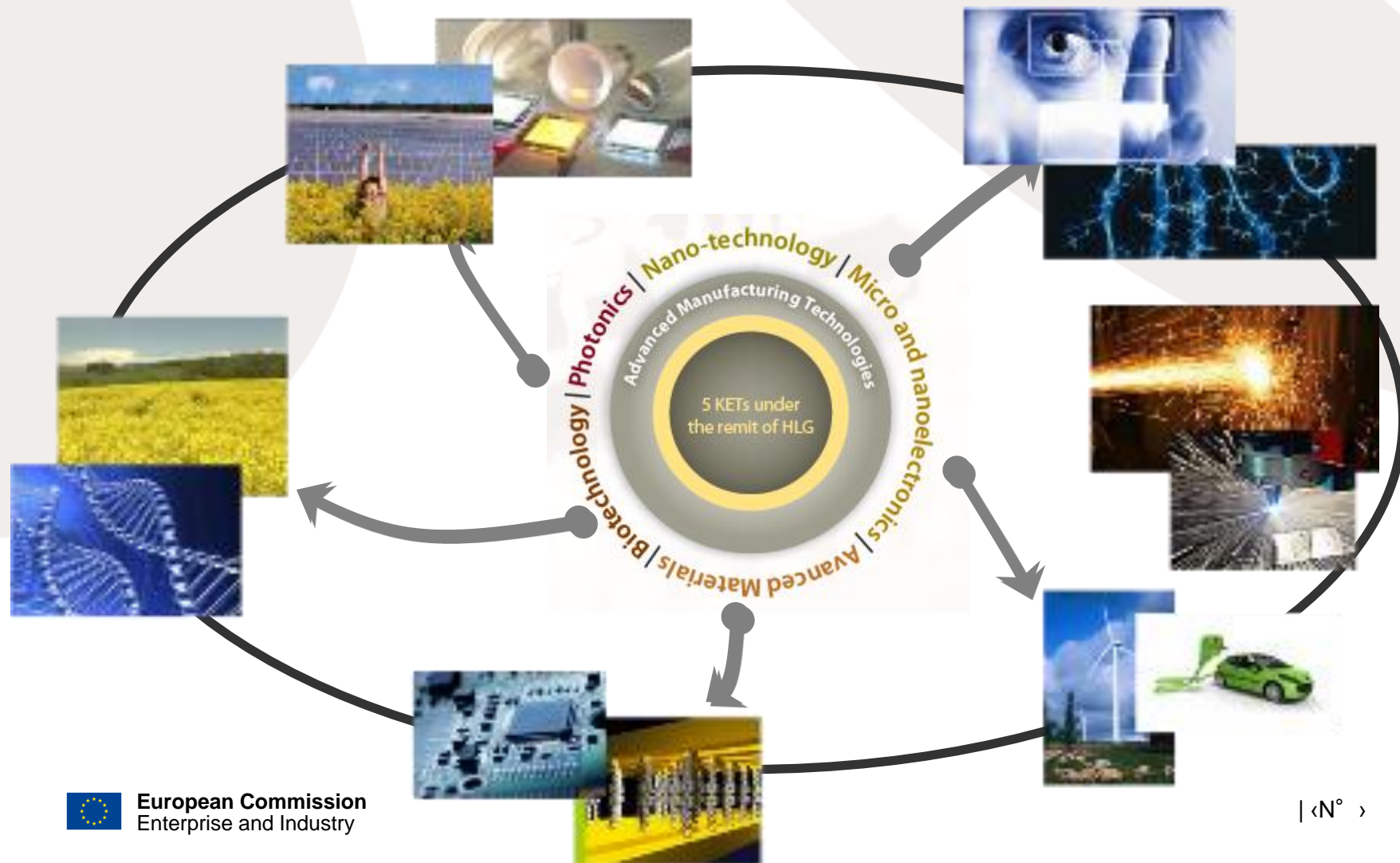
### Digital Agenda

1001100101011101110000100 2010-2020  
for Europe

- Nanotechnology
- Micro- & Nano-electronics
- Photonics
- Advanced Materials
- Biotechnology
- Advanced Manufacturing Systems

# Key Enabling Technologies

*The basis for product solutions to address societal challenges*



# Case Example: the electric car



# The High-Level Expert Group on KETs



# High Level Expert Group on KETs

27 High Level Group members  
+ Sherpa Group  
+ Technology-specific Working Groups

## Mission of the KETs HLG

1. To assess the competitive situation of the relevant technologies in the EU with a particular focus on **industrial deployment** and their contribution to address **major societal challenges**;
2. To analyse in depth the available **public and private R&D capacities for KETs** in the EU;
3. To propose **specific policy recommendations** for a more effective industrial deployment of KETs in the EU.



# The HLG's composition

27 members nominated in a personal capacity with the following composition:

**President**

**Industry**

- 14 representatives of the relevant European industries (5 KET areas; carbon capture and storage; advanced manufacturing systems)
- 3 representatives of downstream industries.

**Research**

- 4 representatives of the applied research community (RTOs)

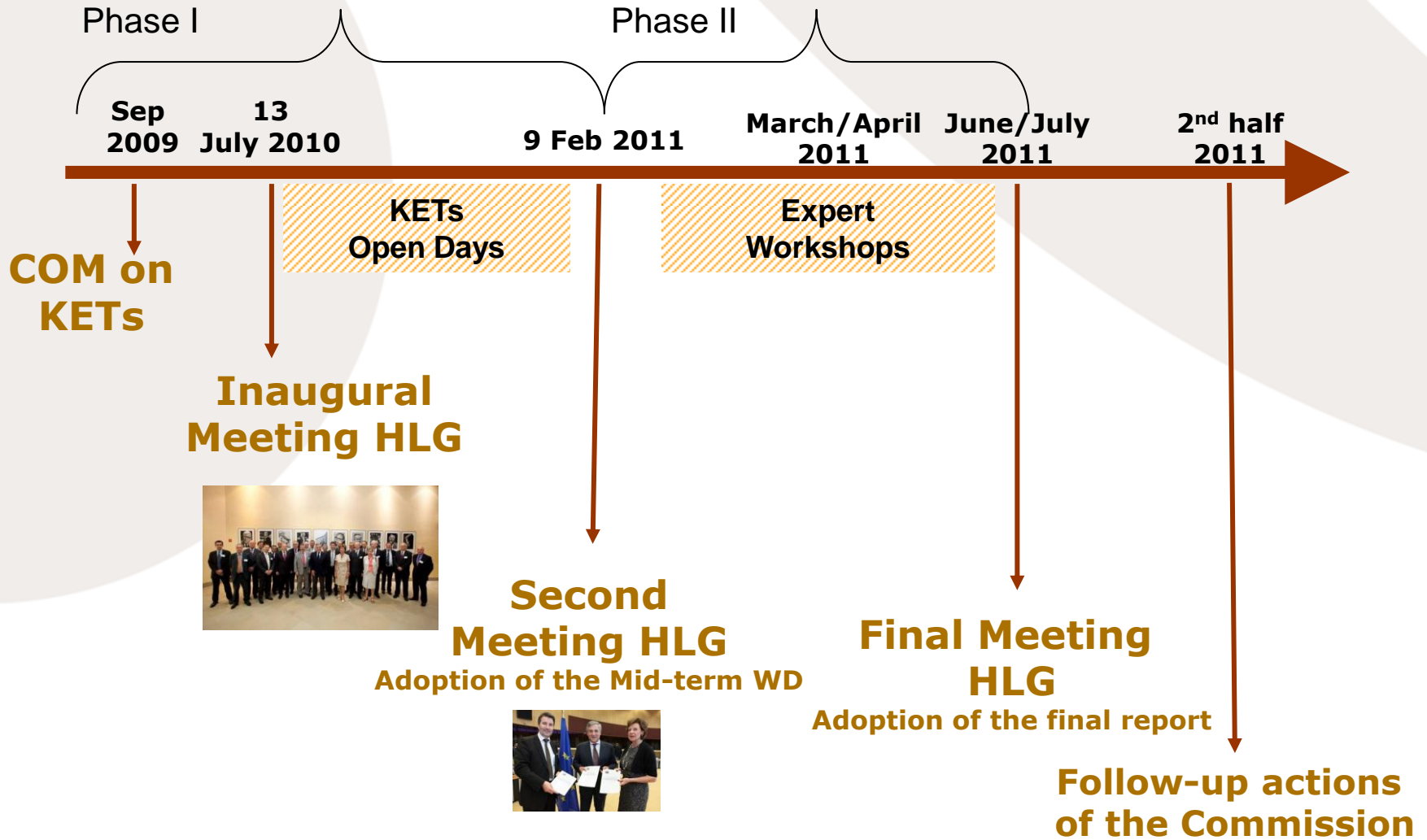
**Member States**

- 3 representatives of Member States, which have strong R&D and industrial capacities in KETs.

**Others**

- 1 representative of the EIB with experience in venture capital.
- 1 representative of SMEs

# HLG Timeline



# Preliminary findings

The mid-term working document

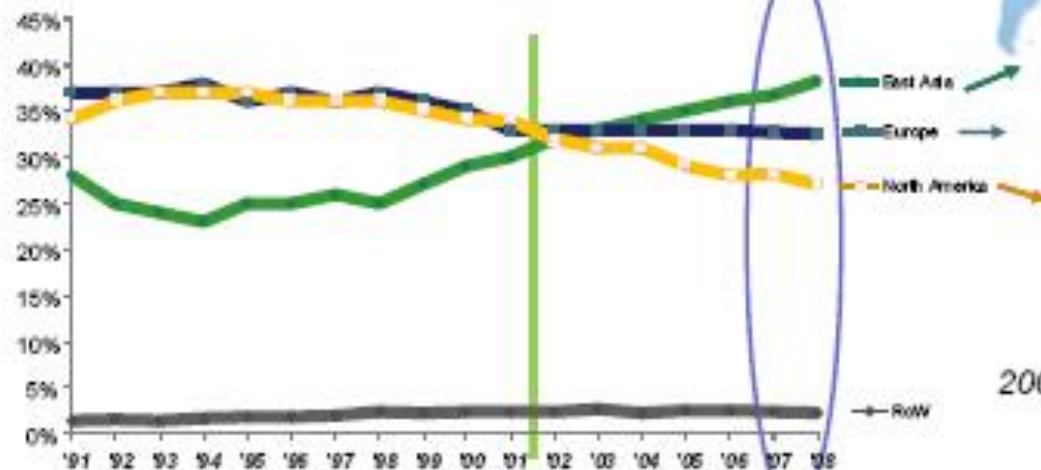


## Concerning patent activity Europe is still in the KET's race

2008



Shares of EPO/PCT patents  
by regions (percent)  
All KETs cumulated



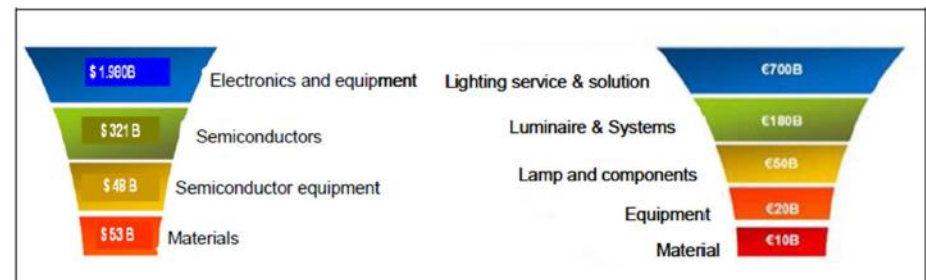
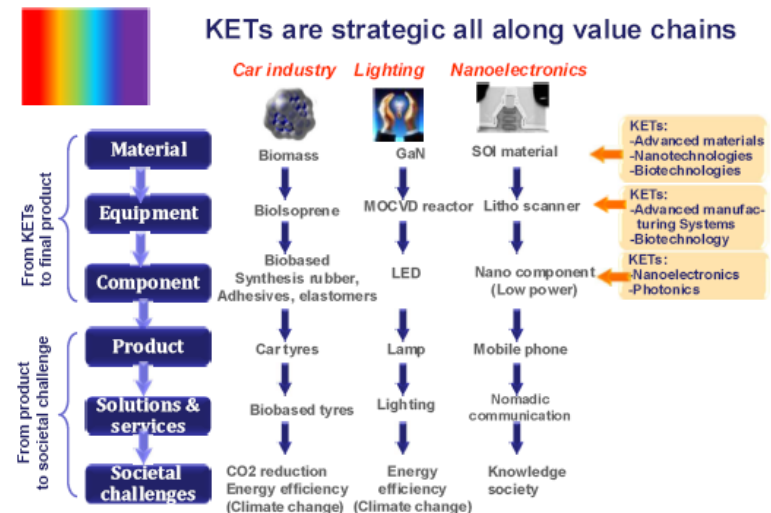
2008 priority patents published

Source: European Competitiveness Report 2010, European Competitiveness in Key Enabling Technologies (TNO/ZSW), TRM2011



# An integrated approach to KETs

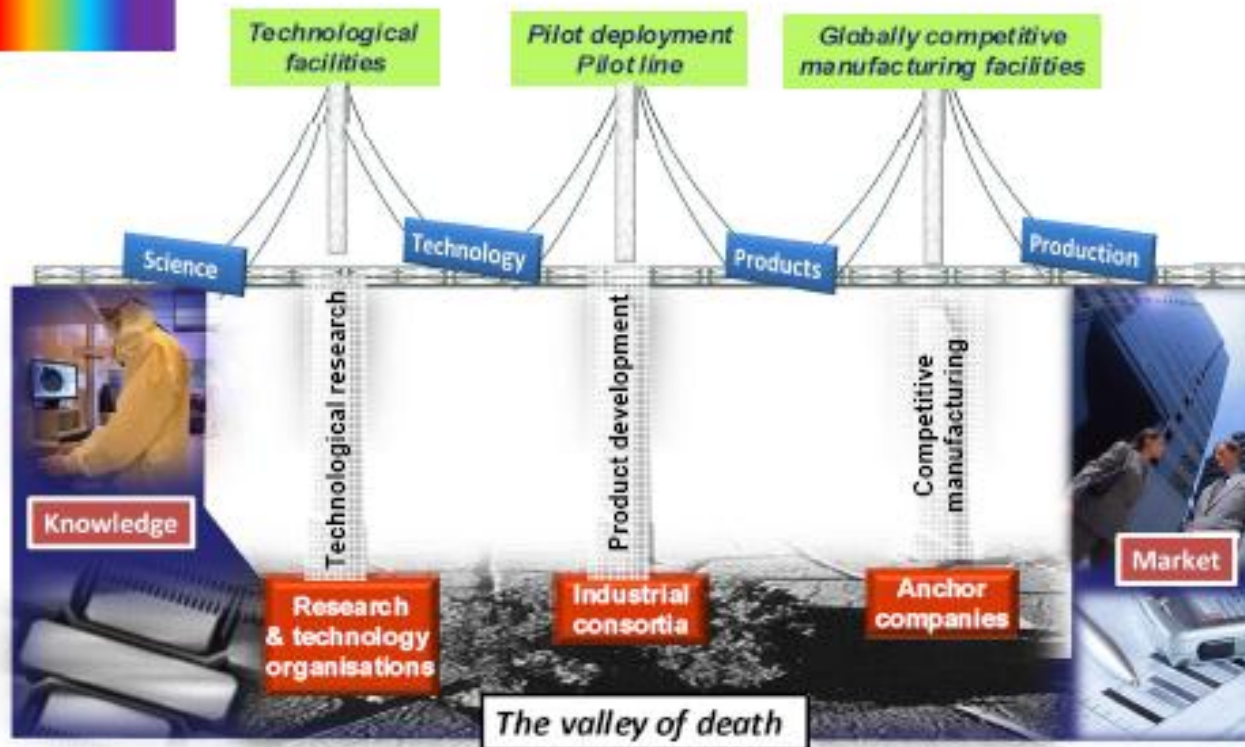
- KETs feed into many different value chains in very heterogeneous ways
- KETs are strategic all along value chains
- A single and integrated approach to KETs is needed



# Problem analysis: the valley of death



European « three pillars bridge » to pass across the « valley of death »



# Building the bridge

## 1. Technological Research

- Transforming ideas into technologies (proof of concept, IPR)

## 2. Product Development

- Allowing the transformation of KETs into innovative products by putting prototyping, pilot lines and market replication facilities into place

## 3. Globally Competitive Manufacturing Facilities

- Maintaining and creating European production facilities which are globally competitive (in terms of product volumes and pricing)



# What potential impacts on the HLG report on KETs?

- **CSF**
  - An integrated industry driven approach to KETs
  - An emphasis on technological reasearch, technological platforms and pilot lines
  - Rules (value added correctness, IPR)
  - Co-financing
- **Structural Funds**
  - KETs and smart specialisation
  - Rules
- **BEI**
  - Loans and Risk Sharing Finance Facility (RSFF)
- **Skills**

**Thank you!**

# Contact

European Commission  
DG Enterprise and Industry  
Unit D3: ICT for Competitiveness & Industrial Innovation  
B-1049 Brussels  
E-mail: [entr-kets-open-days@ec.europa.eu](mailto:entr-kets-open-days@ec.europa.eu)

## **HLG website:**

[http://ec.europa.eu/enterprise/hlg\\_kets.htm](http://ec.europa.eu/enterprise/hlg_kets.htm)