

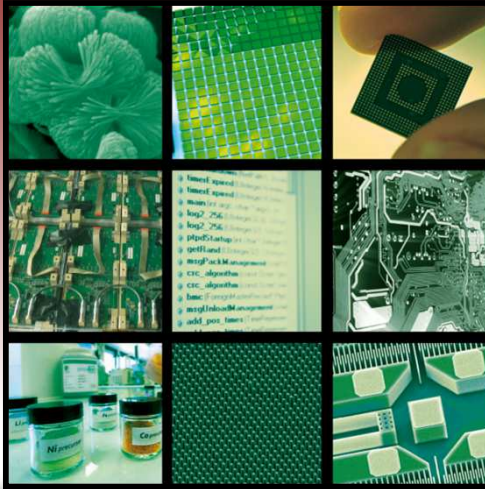
# Accelerating European SMEs to global markets

The role of *KET Technology Platforms* in  
product development and innovation

**Gabriel M. Crean**

*On behalf of M. Jean Therme  
President of the EC High Level Group on Key Enabling  
Technologies*

SME Assembly, Vilnius, November 27<sup>th</sup>, 2013



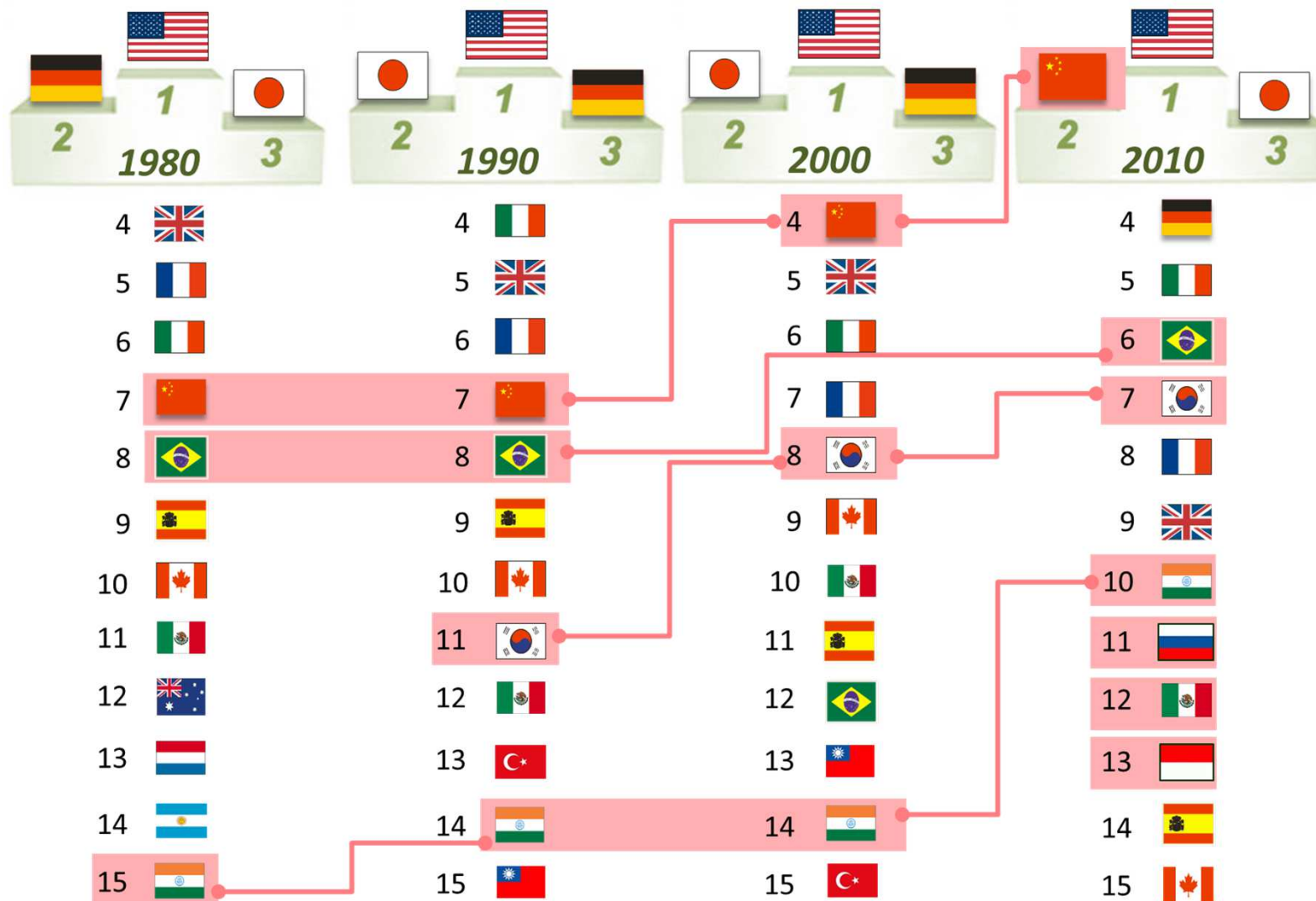
# Outline

- 1 European Manufacturing landscape
- 2 Importance of Key Enabling Technologies for SME competitiveness
- 3 European SMEs “Valley of Death”
- 4 KETs technology platform concept



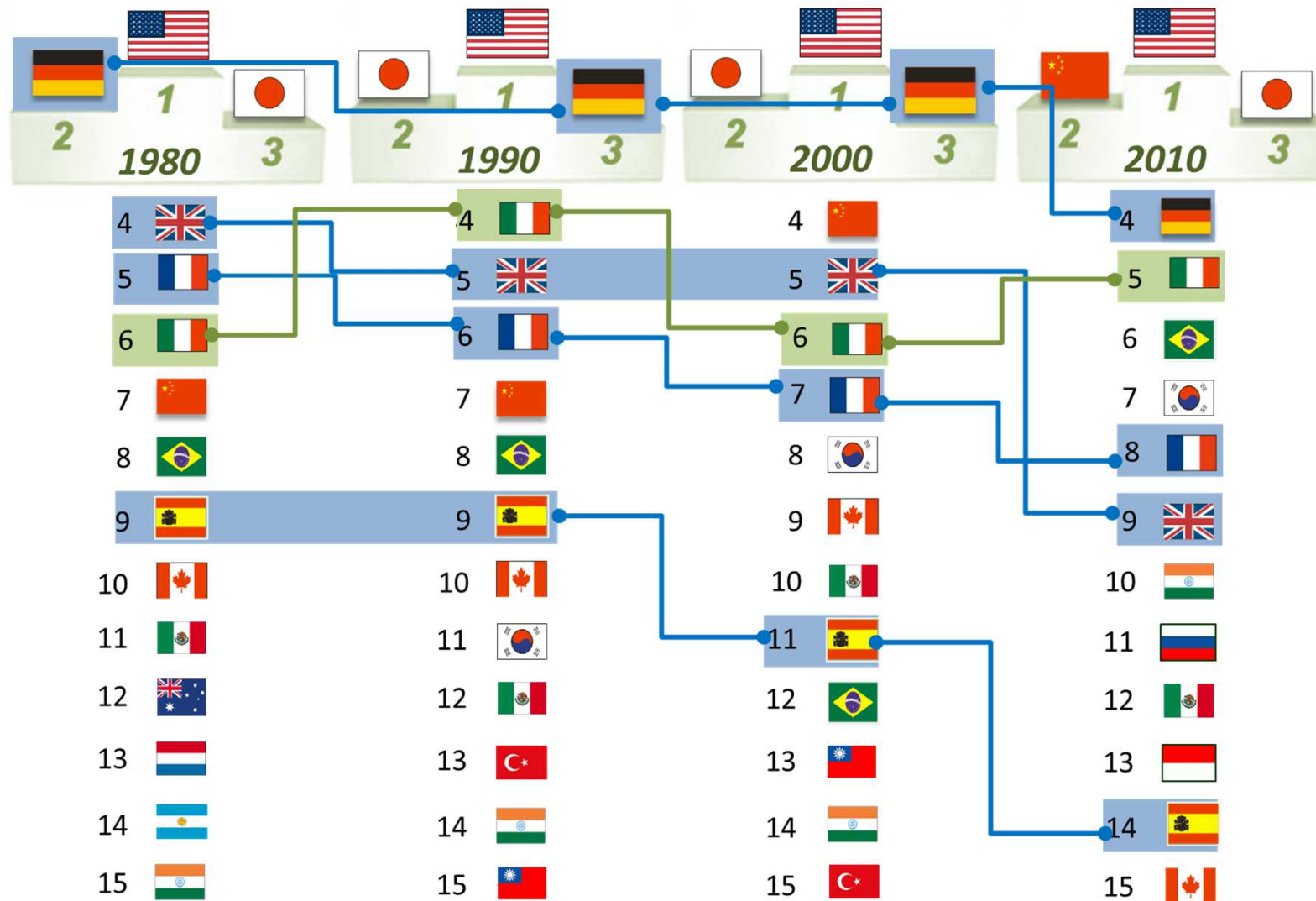
# European competition in global manufacturing is declining

## Top 15 Manufacturers by share of global manufacturing nominal gross value added



# European competition in global manufacturing is declining

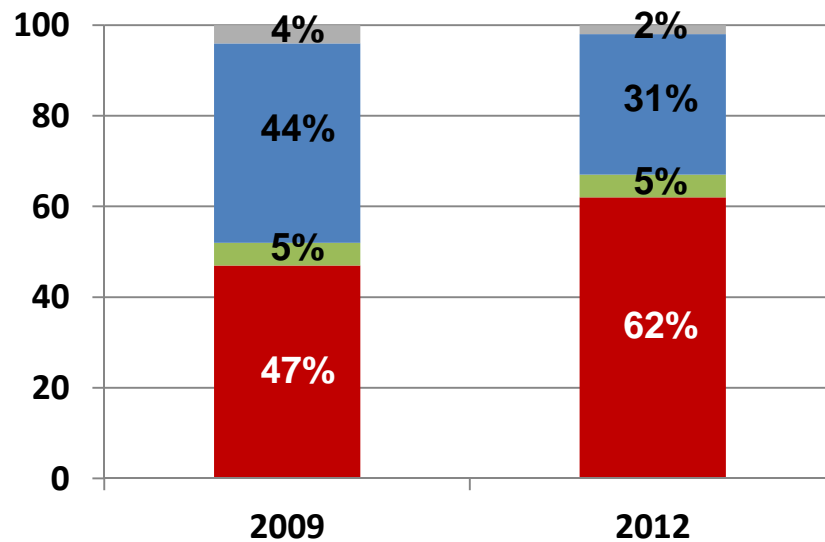
## Top 15 Manufacturers by share of global manufacturing nominal gross value added



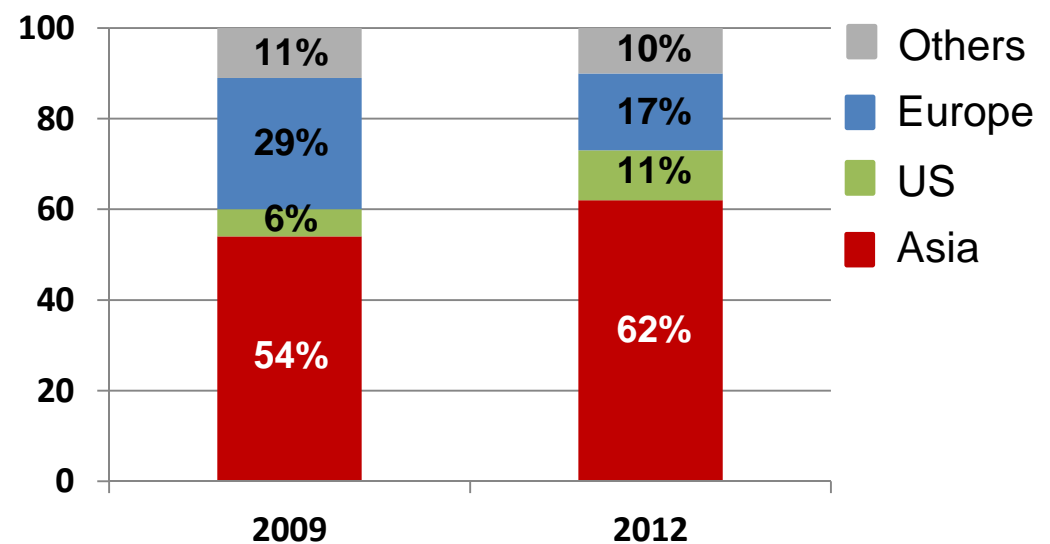


# European competition in global manufacturing is declining

World Machine Tool production  
for the period 2009-2012



World Machine Tool consumption / geographical  
repartition for the period 2009-2012



***“Once the manufacturing base is lost,  
it never comes back”.***

CECIMO President

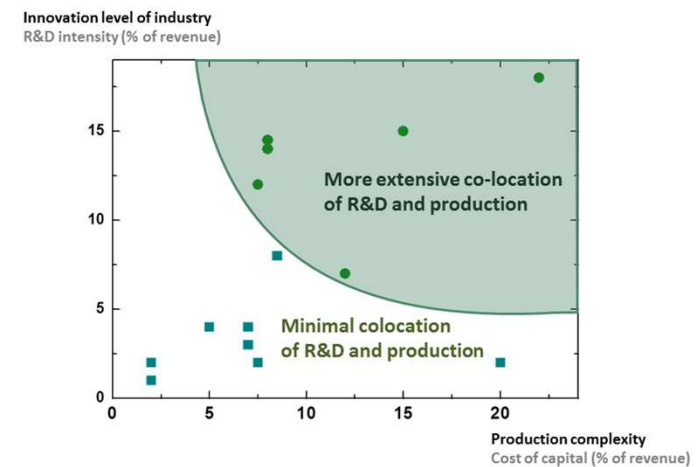


# Lose Manufacturing: you Lose R&D

Manufacturing contributes disproportionately to exports and innovation



Complexity of production and level of innovation determine need for co-locating R&D and production



***Manufacturing the future: the next era of global growth and innovation.***  
*McKinsey, 2012*



## Outline

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# The elaboration of a European strategy on KETs



Vice-President **Antonio Tajani**,  
Commissioner for Industry &  
Entrepreneurship

## ( 2009 ) EC Communication on KETs



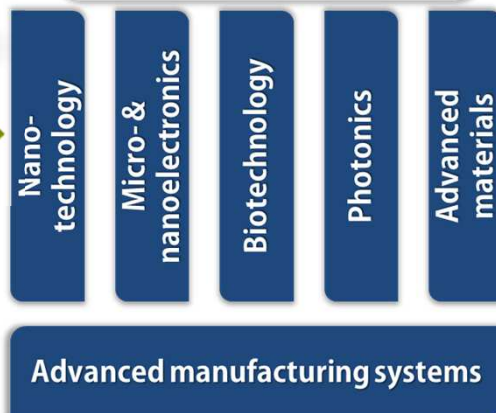
COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels,  
COM(2009) 512/3

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

"Preparing for our future: Developing a common strategy for key enabling technologies  
in the EU"

### 6 « Key Enabling Technologies »



EN

EN



## ( 2010 ) Launching of HLG-KET (1)



Final Report



## ( 2011 ) HLG Strategic recommendations



# The implementation of a European strategy on KETs

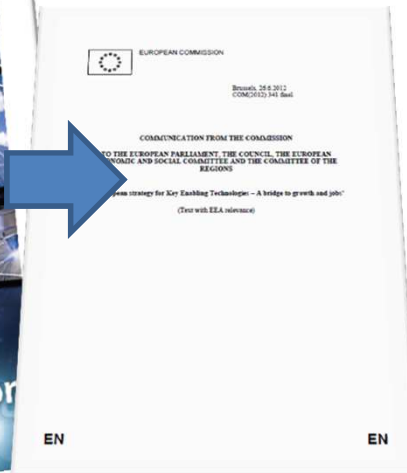
( 2012) EC Communication on KETs



( 2012) EC Communication on industrial policy including KETs



( 2011 )



**Vice-President Kroes,**  
Commissioner for  
Digital Agenda



**Maire Geoghegan-  
Quinn,** Commissioner  
for Research,  
Science and  
Innovation



**Johannes Hahn**  
Commissioner  
for Regional  
Policy



( July 2013) Status Implementation Report



# KETs are strategic for a competitive Europe

*Combining several key enabling technologies for advanced products*

**Societal  
challenge**

Low carbon  
mobility



## Electric vehicle

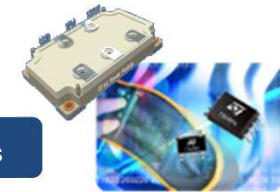


Advanced materials



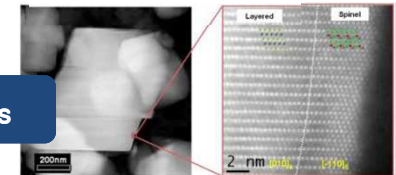
*Nanopowder  
for batteries*

Microelectronics



*Power MOSFET*

Nanotechnologies



*Sensor*

Advanced manufacturing



Photonics



*Led's*

Biotechnologies



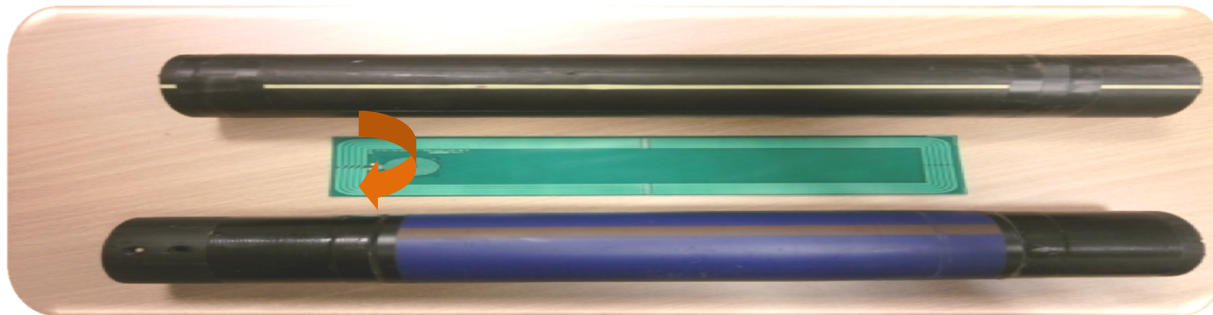
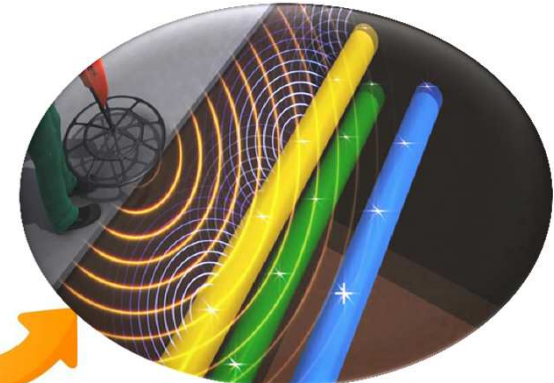
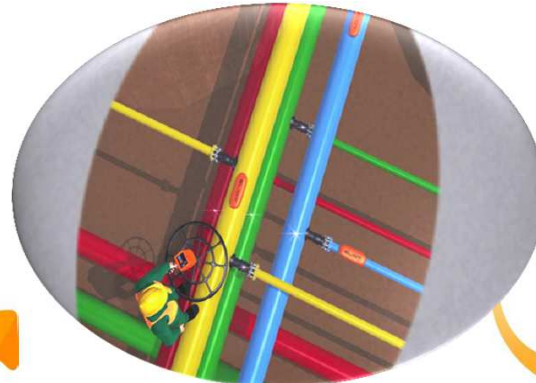
*Lotus effect windscreen*



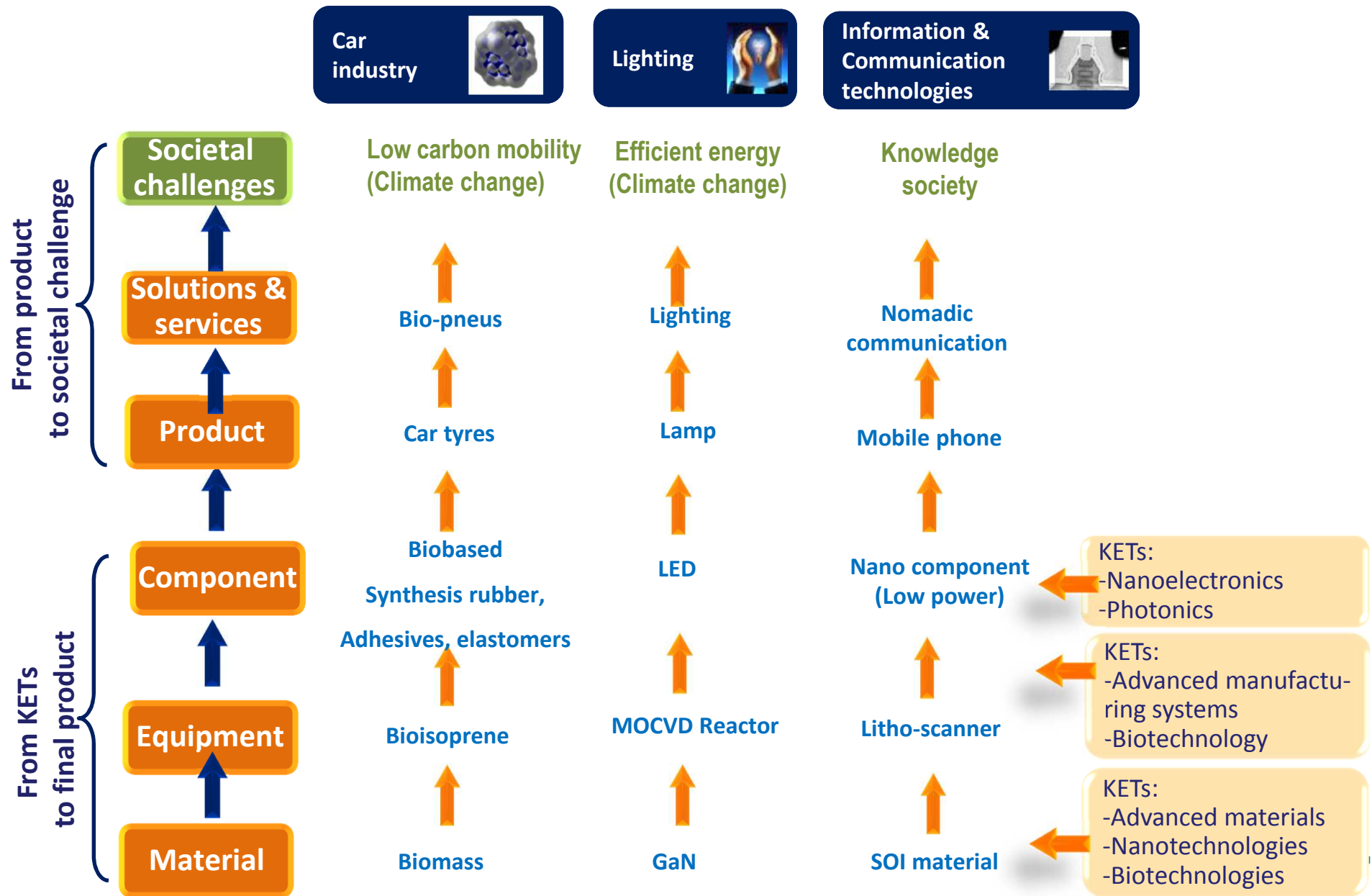
# KETs help also innovate traditional products



**World first !**  
**ELIOT<sup>®</sup>, the first plastic pipe that communicates and is detectable**



# KETs are strategic all along EU value chains





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# European SMEs Valley of death



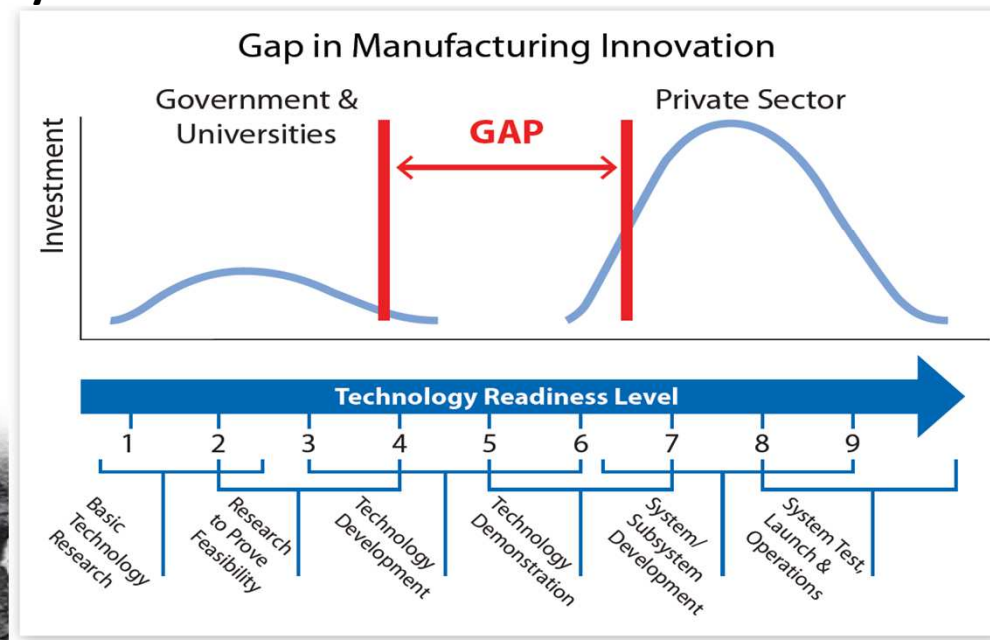
June 2011



July 2011



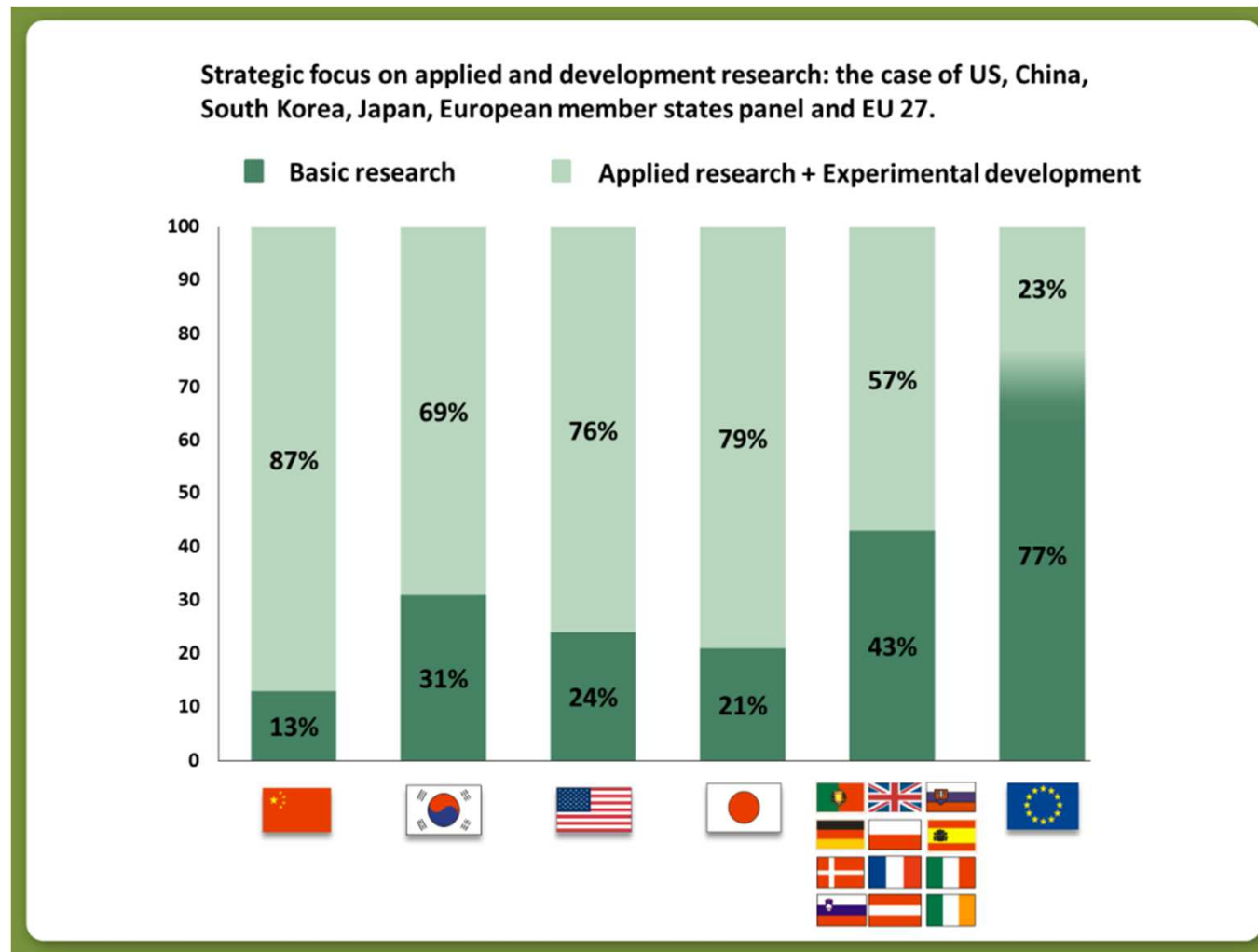
Knowledge



Market

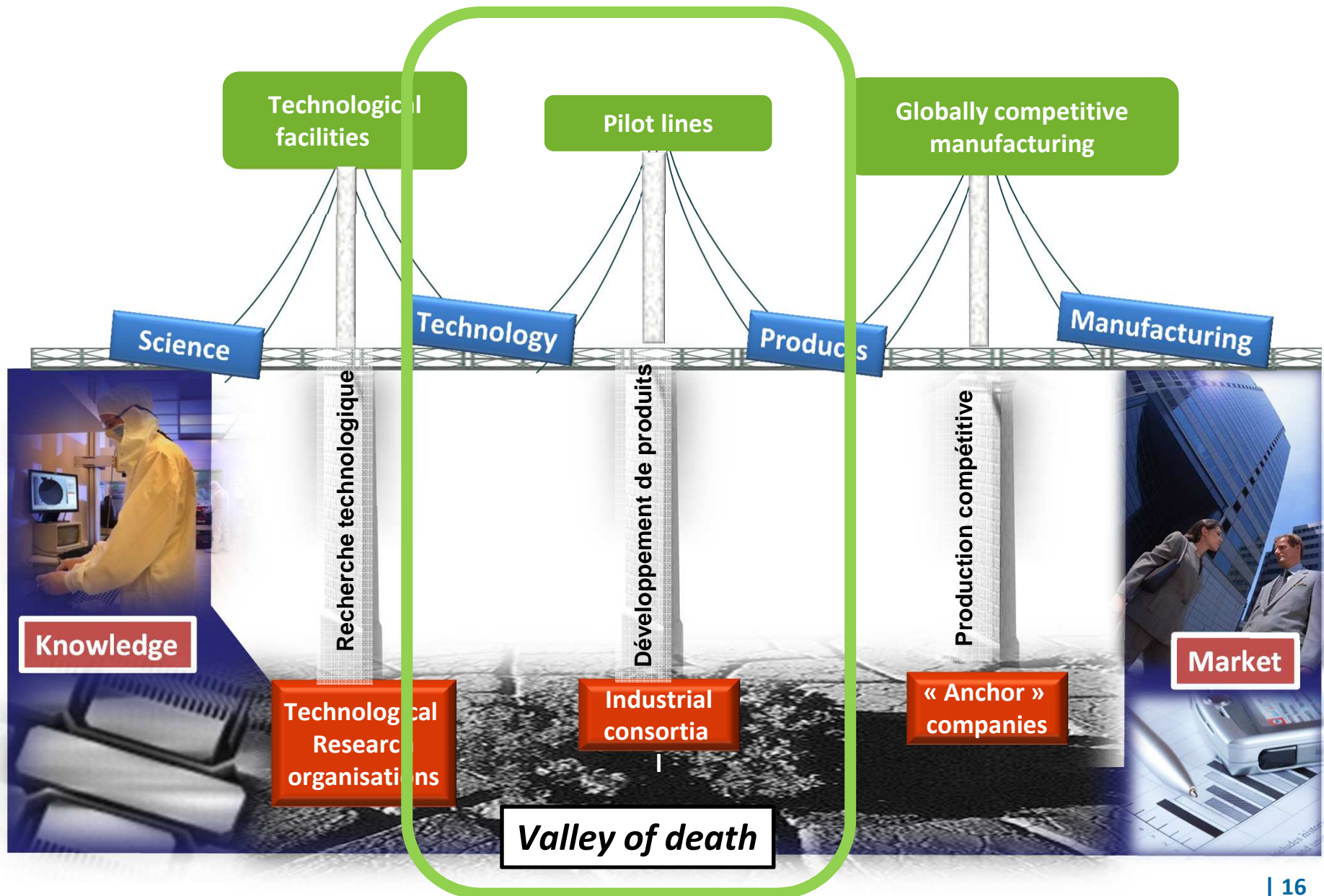
**The valley of death**

# US and Asia invest massively in development activities to sustain their industrial innovation



**For a competitive innovative economy, Europe has to support Technological transfer to SMEs to reinforce their innovation capacity**

# A « three pillar bridge » to pass accross the « valley of death »





# Pilot lines support SMEs across Europe: *example of Electronics sector*



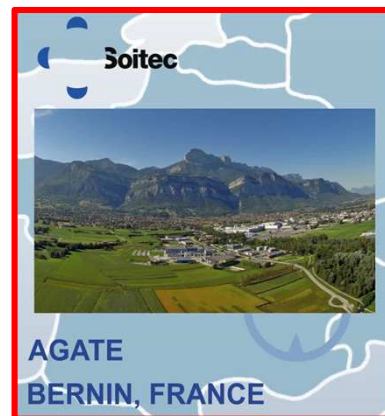
21 participants  
from 10 countries



43 participants  
from 12 countries



35 participants  
from 6 countries



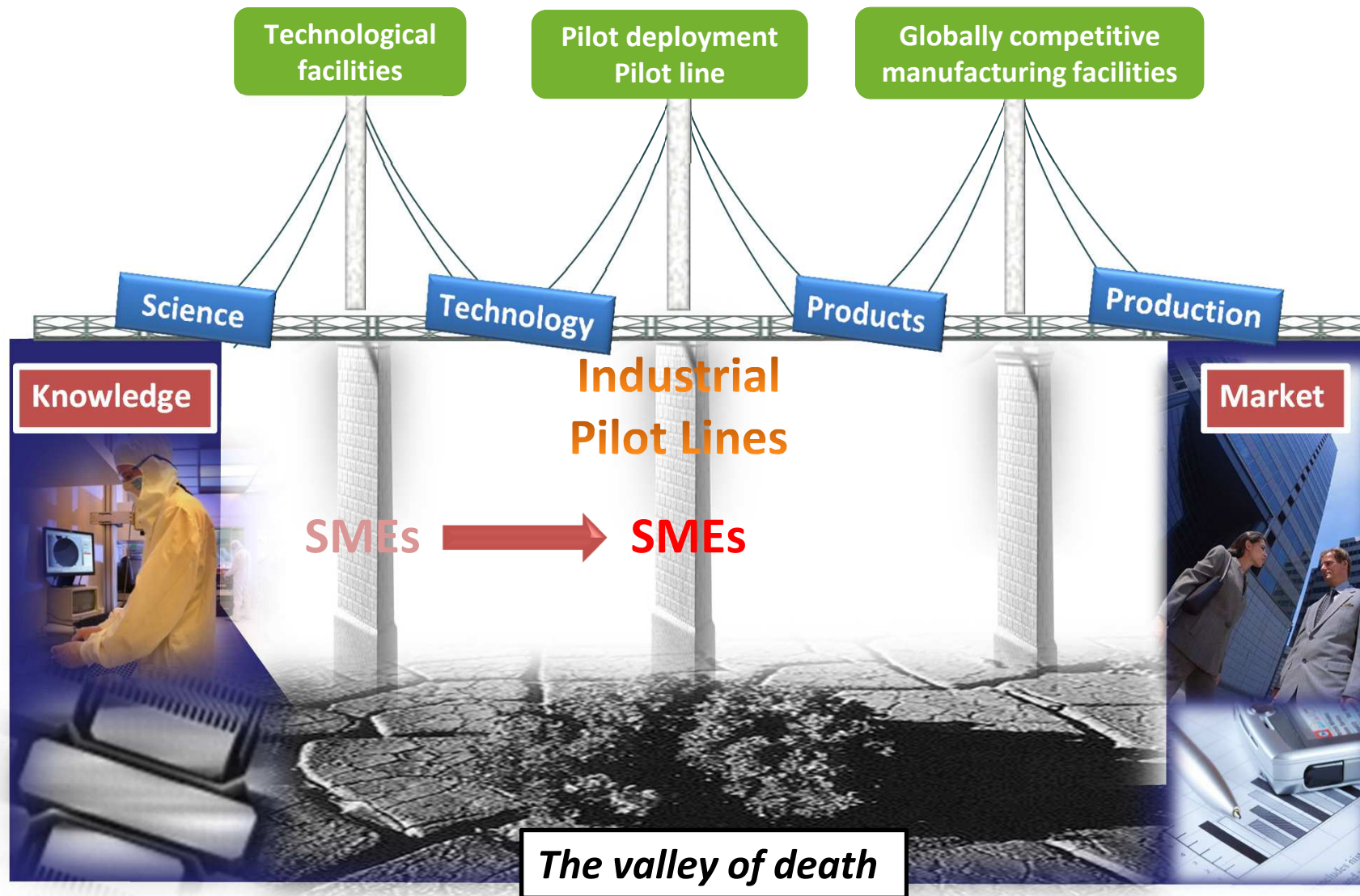
10 participants  
from 5 countries



23 participants  
from 7 countries

● (Canary Islands)

(Israel) ●



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# Status Implementation Report of the High Level Group on KETs



## Recommendation 5: Reinforcing the KETs innovation capacity of SMEs and small & mid-caps

Considering the vital role of SMEs and small & mid-cap companies in job creation and innovation in the European Union, and their difficulties to install or have access to pilot line or early stage prototyping facilities, due to limited resources, business size and financial capacities, the High Level Group recommends the European Commission **to proactively support specific actions to promote and enable pan European access to a set of KET technology platforms to accelerate the entry to the market of early stage KET based prototypes enabled by SMEs** in alignment with European supply chain.

### *Vice President Tajani conclusion speech, HLG KET Meeting, Berlaymont, July 16<sup>th</sup>, 2013 [Translation]*



Vice-President **Antonio Tajani**,  
Commissioner for Industry  
& Entrepreneurship

‘I also wish to point out your willingness to step up efforts for SMEs as Key Enabling Technologies affect both large and small companies. [...]

**We must therefore ensure that SMEs can leverage their innovation capabilities. One way to do so, is to facilitate their access to KETs technology platforms, allowing them to test the feasibility of their ideas and projects. [...]**

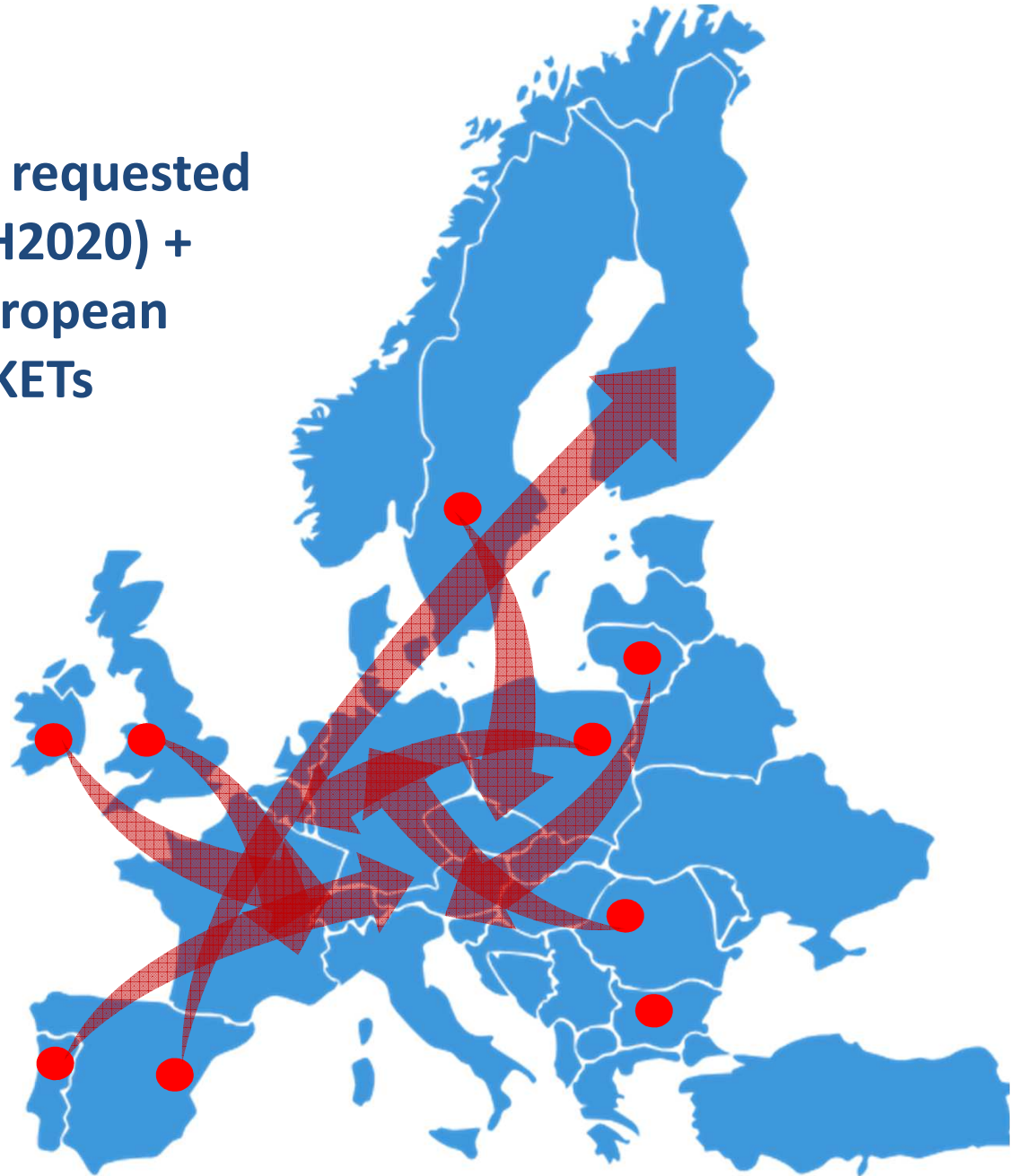
necessary to provide support to the development of KETs technology platforms, through Horizon 2020, and to facilitate the access of SMEs to those platforms, through the COSME programme.





# Pan European access of SMEs to KETs Technological Platform

The European Commission is requested to use its SME instruments (H2020) + COSME to implement Pan European access of SMEs to European KETs Technology Platforms



# Conclusions

Europe needs to take actions urgently to insure SMEs access to key enabling technologies.

To do so, the High Level Group on KETs:

- ✓ recommends the European Commission to launch a specific KET SMEs-driven initiative to facilitate (via appropriate funding schemes) a Pan-European access to European KETs technology platforms.
- ✓ welcomes the support of SMEs Envoys for the effective implementation of its SME recommendations

