



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 27th, 2013



Outline

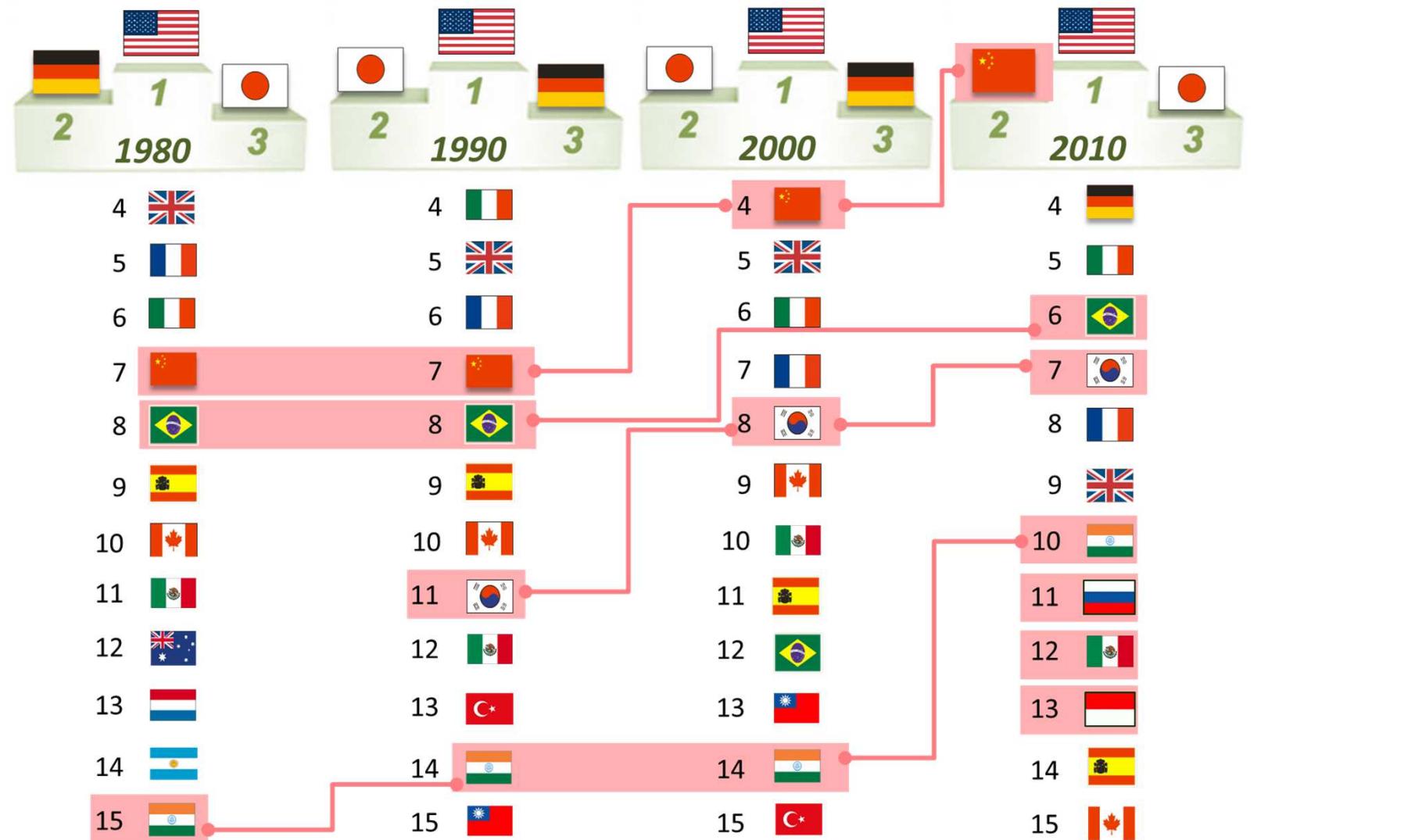


- 1 European Manufacturing landscape
- 2 Importance of Key Enabling Technologies for SME competitiveness
- 3 European SMEs “Valley of Death”
- 4 KETs technology platform concept



European competition in global manufacturing is declining

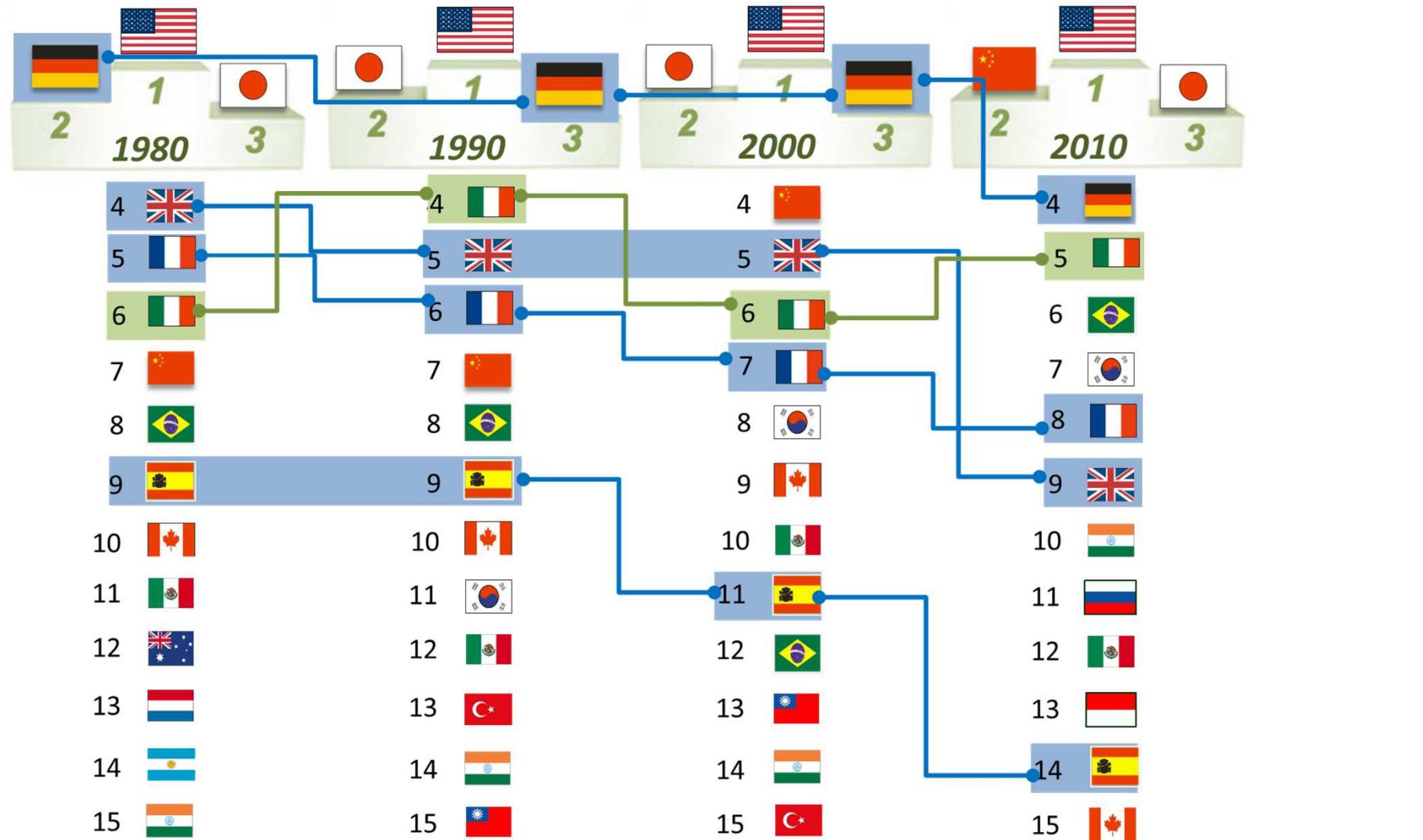
Top 15 Manufacturers by share of global manufacturing nominal gross value added



Source: McKinsey Report: Next Era of Manufacturing.2012

European competition in global manufacturing is declining

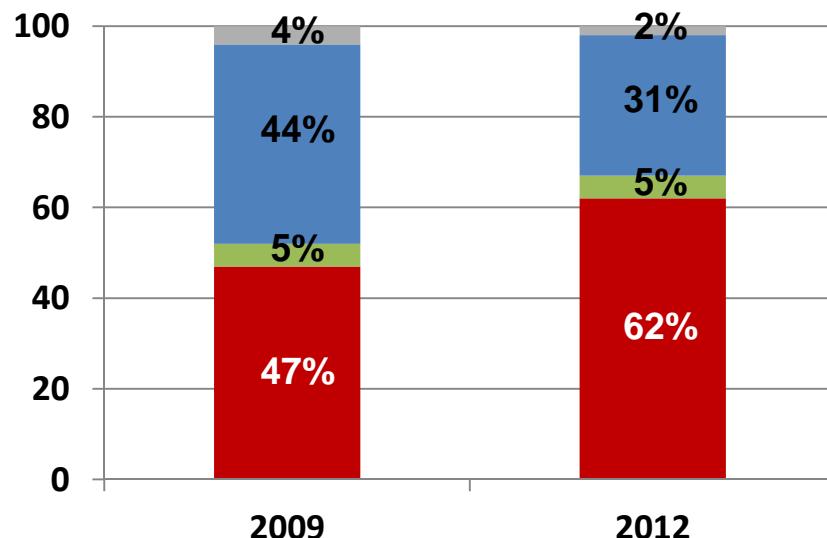
Top 15 Manufacturers by share of global manufacturing nominal gross value added



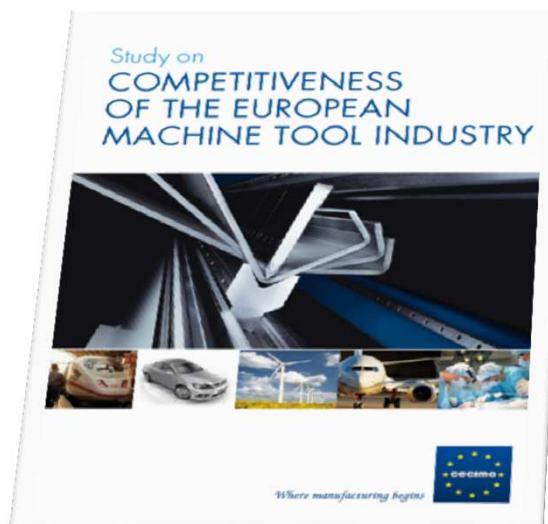
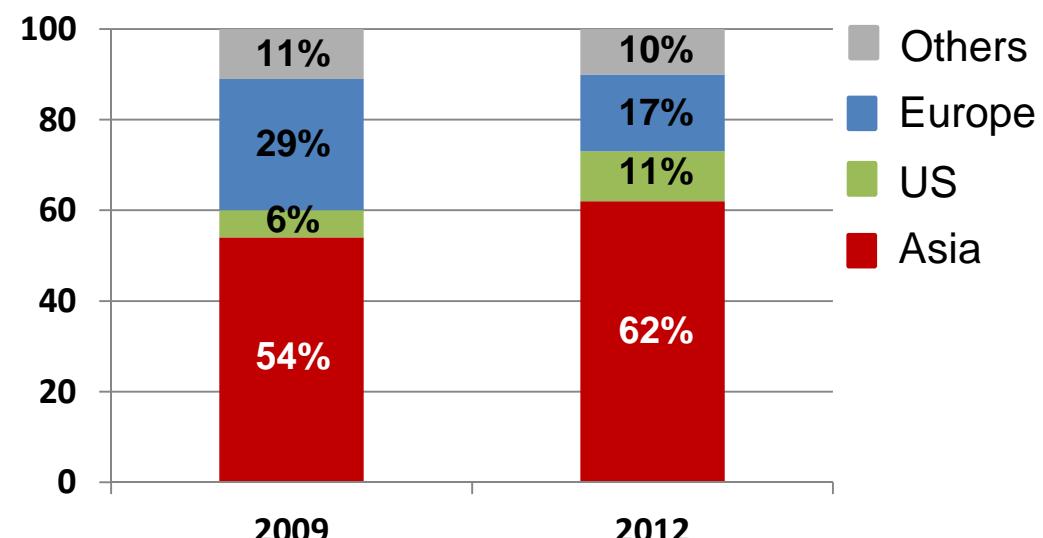
Source: McKinsey Report: Next Era of Manufacturing.2012

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

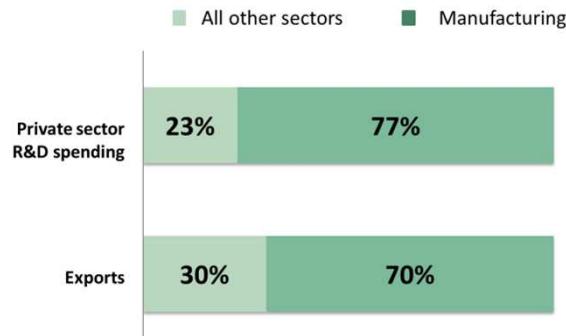


***“Once the manufacturing base is lost,
it never comes back”.***

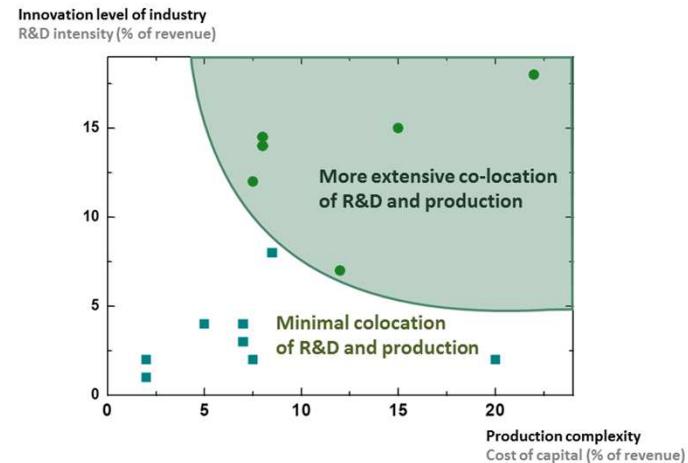
CECIMO President

Lose Manufacturing: you Lose R&D

Manufacturing contributes disproportionately to exports and innovation

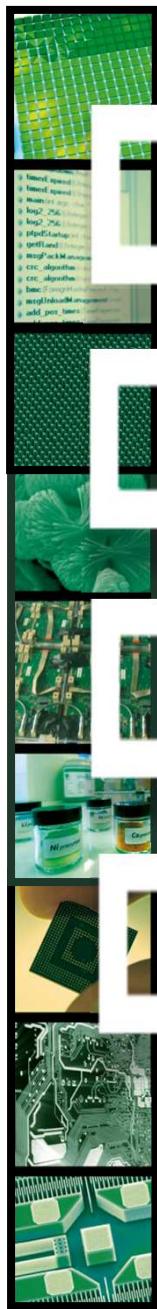


Complexity of production and level of innovation determine need for co-locating R&D and production



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

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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 »



Advanced manufacturing systems

EN

EN



(2010) Launching of HLG-KET (1)



(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
Antonio Tajani,
Commissioner for Industry
& Entrepreneurship



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



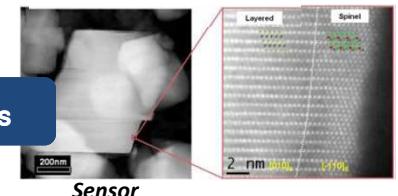
Nanopowder for batteries

Microelectronics



Power MOSFET

Nanotechnologies



Sensor

Photonics



Led's

Biotechnologies



Lotus effect windscreen

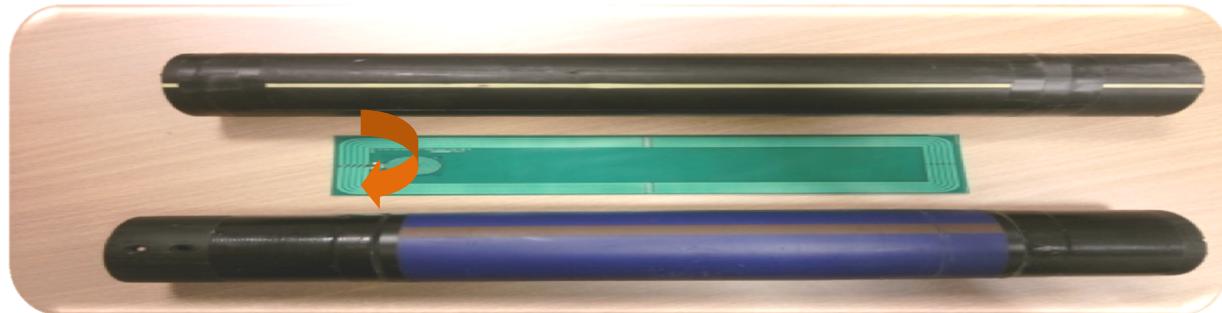
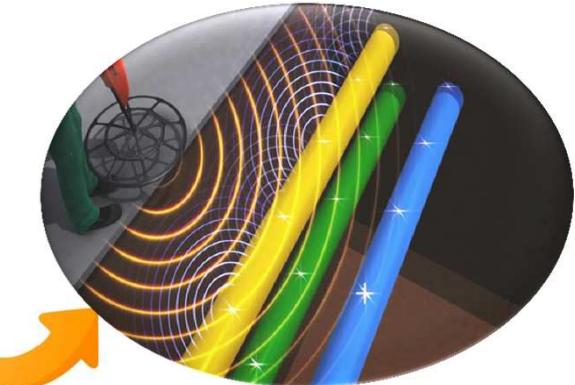
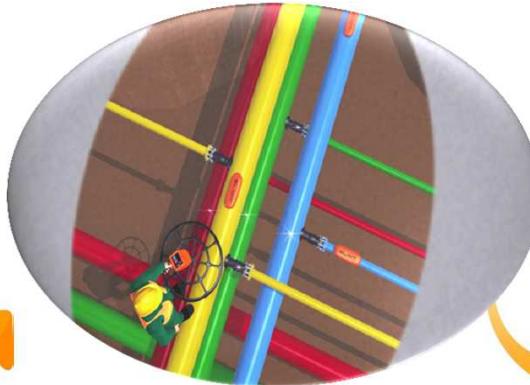


Advanced manufacturing

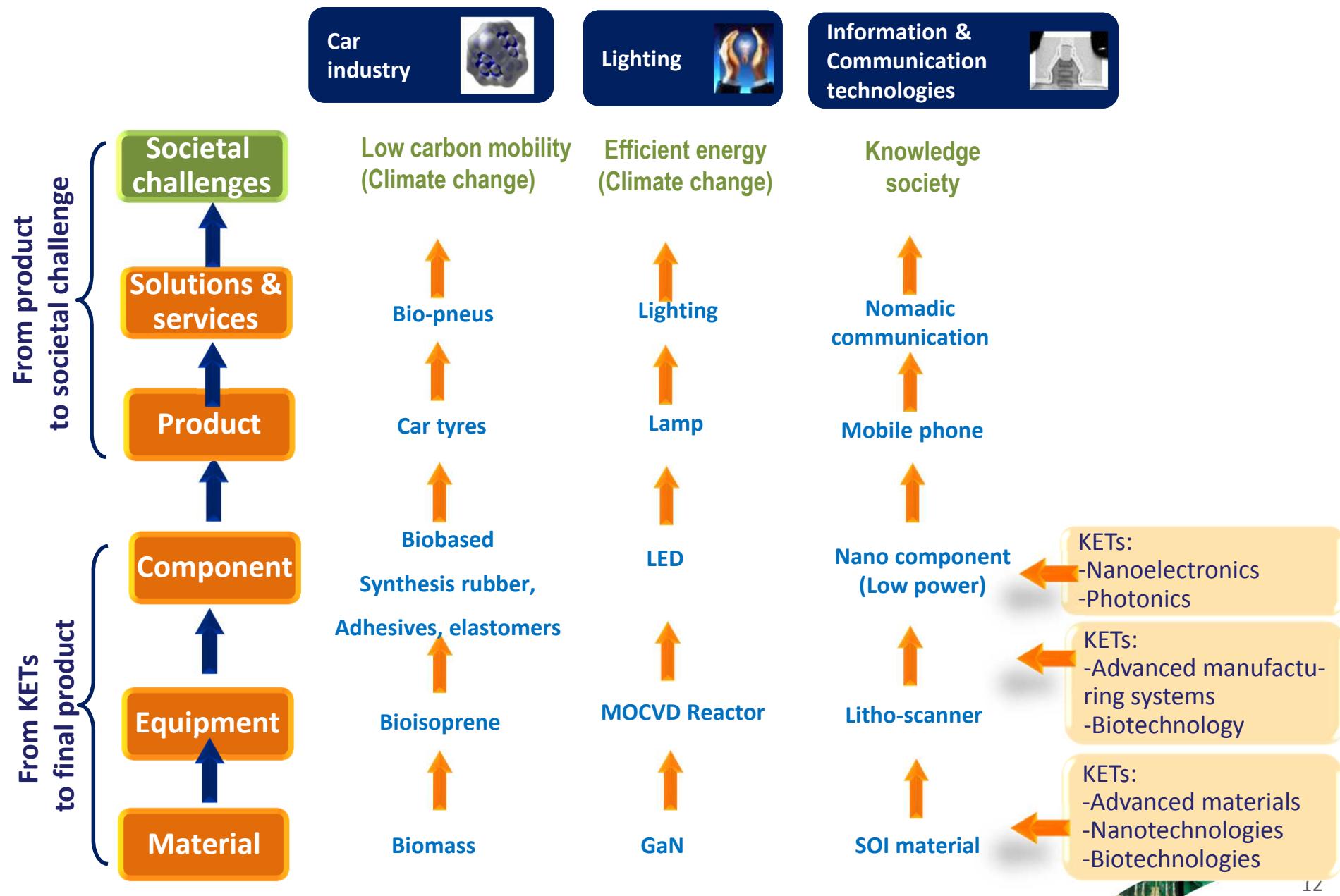
KETs help also innovate traditional products



World first !
ELIOT®, the first plastic pipe that
communicates and is detectable



KETs are strategic all along EU value chains



Outline



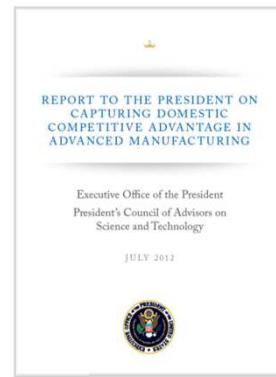
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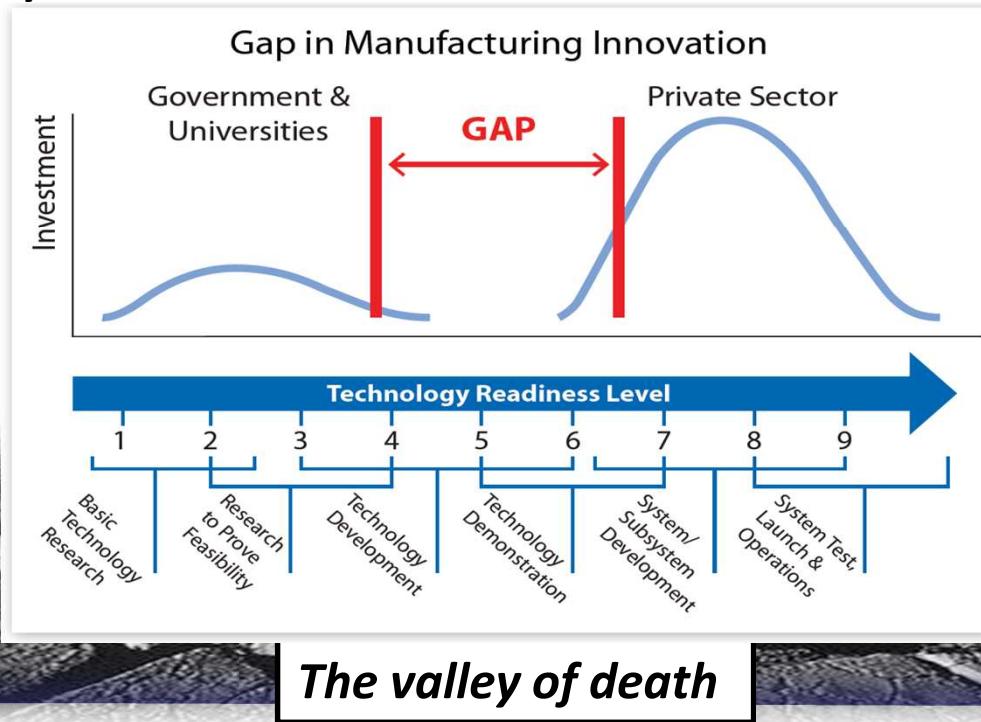
European SMEs Valley of death



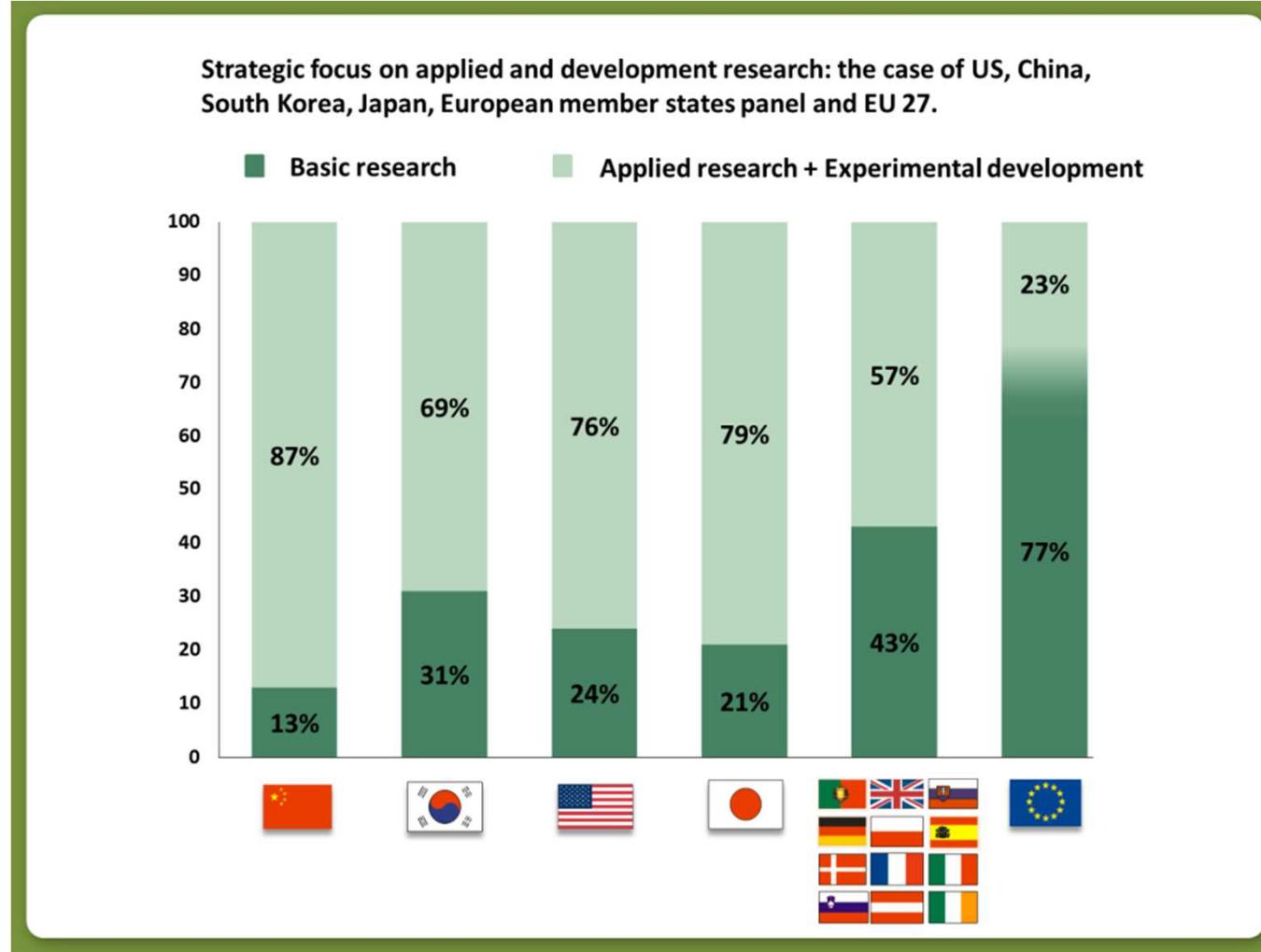
June 2011



July 2011

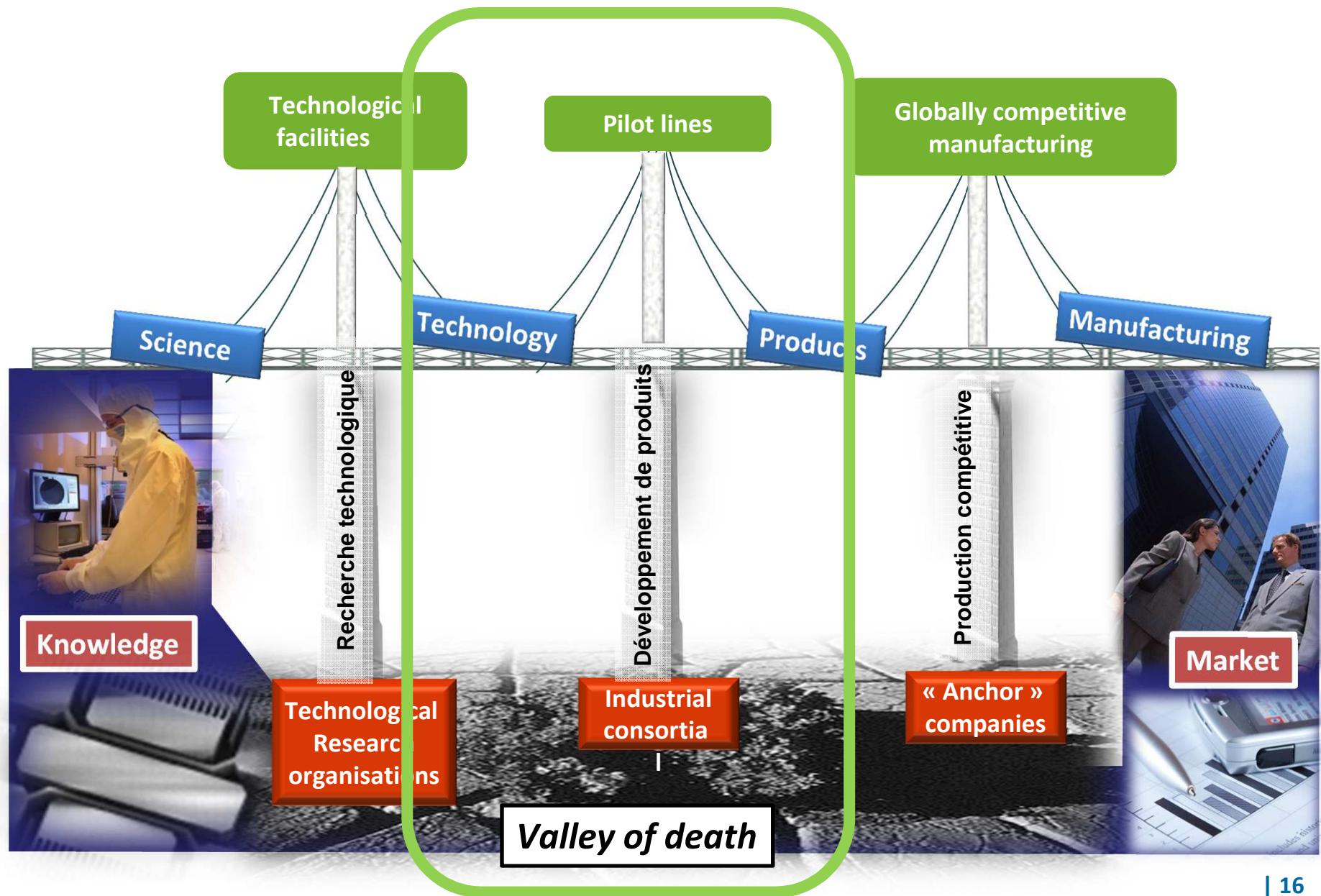


US and Asia invest massively in development activities to sustain their industrial innovation



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

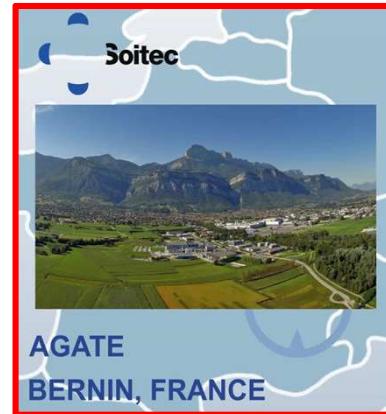
A « three pillar bridge » to pass accross the « valley of death »



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



**21 participants
from 10 countries**



**10 participants
from 5 countries**



**43 participants
from 12 countries**



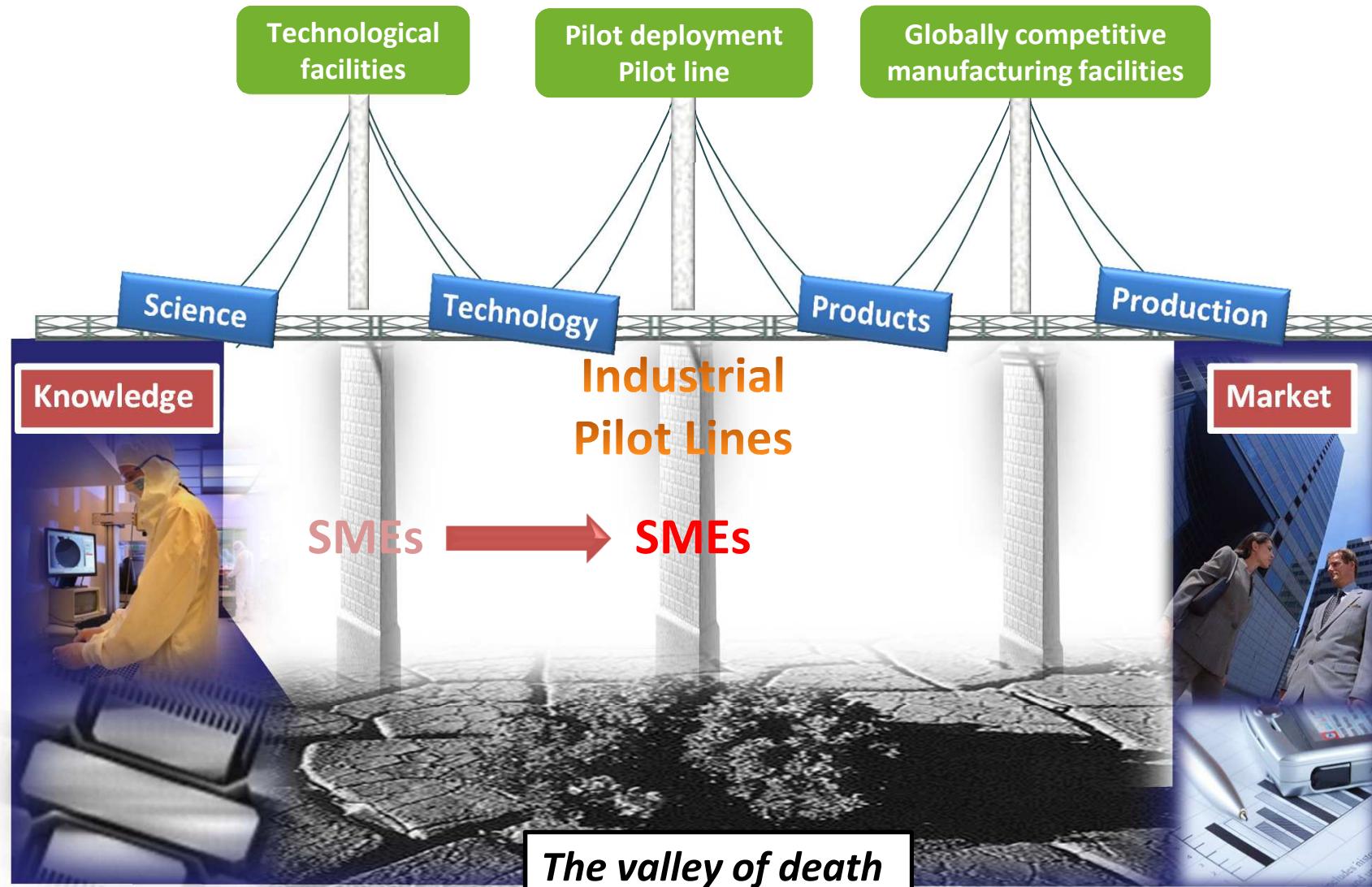
**35 participants
from 6 countries**



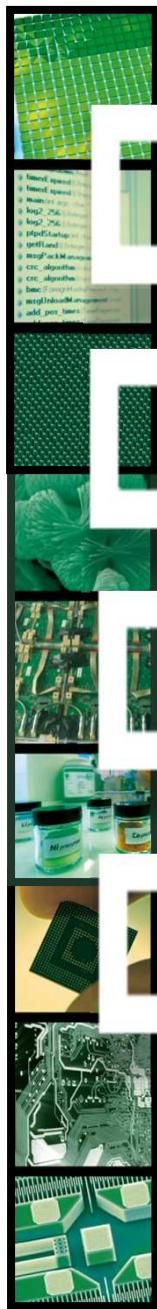
**23 participants
from 7 countries**

● (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 16th, 2013 [Translation]

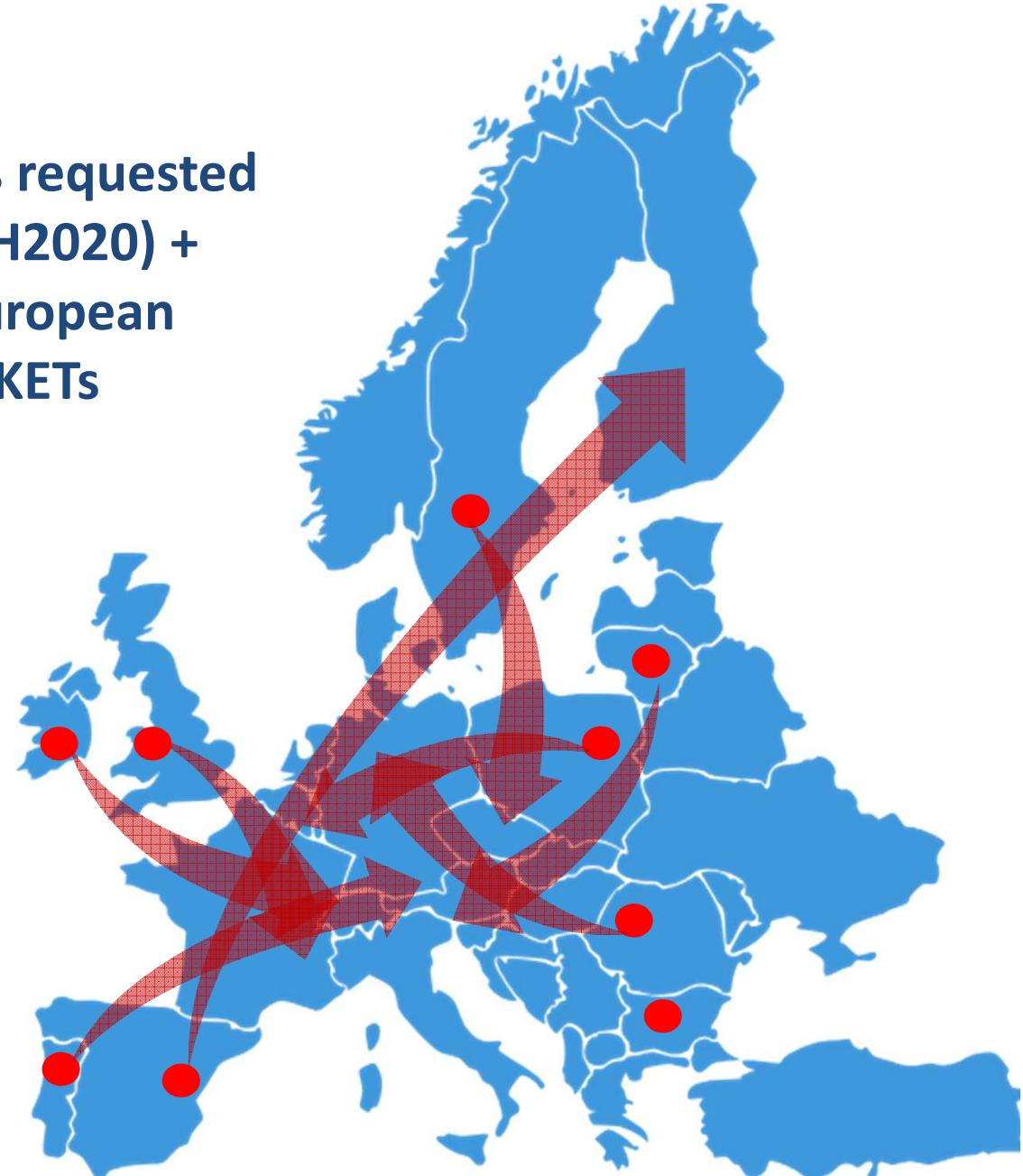


*Vice-President Antonio Tajani,
Commissioner for Industry
& Entrepreneurship*

‘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



Thank you for your attention