

# Vanguard Initiative

## New Growth through Smart Specialisation



**VANGUARD INITIATIVE**  
NEW GROWTH THROUGH SMART SPECIALISATION

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### News

The Vanguard Initiative hosted a lively discussion about cross-regional collaboration at WIRE 2016

21.06.2016 From 8 to 10 June 2016 the Week of Innovative Regions in Europe (WIRE) took place in Eindhoven, The Netherlands. Vanguard Initiative was, during several parts of the program, presented as a promising example of interregional collaboration. The network was offered the opportunity to organise a 'hosted by' session during this conference, which was co-organised by Brainport Development and the EC's DG Research & Innovation.

[Read more](#)



Asturias  
Auvergne - Rhône-Alpes  
Baden-Württemberg  
Basque Country  
Cantabria  
Catalonia  
Dalarna  
Emilia Romagna  
Flanders  
Galicia  
Ile de France  
Lombardy  
Malopolska  
Navarra  
Nord pas de Calais  
Norte  
Nort Rhine-Westphalia  
Ostrobothnia  
Pays de la Loire  
Randstat  
Skåne  
Saxony  
Scotland  
Silesia  
South Denmark  
South Netherlands  
Tampere Region  
Upper-Austria  
Wallonia

# What is the Vanguard Initiative?

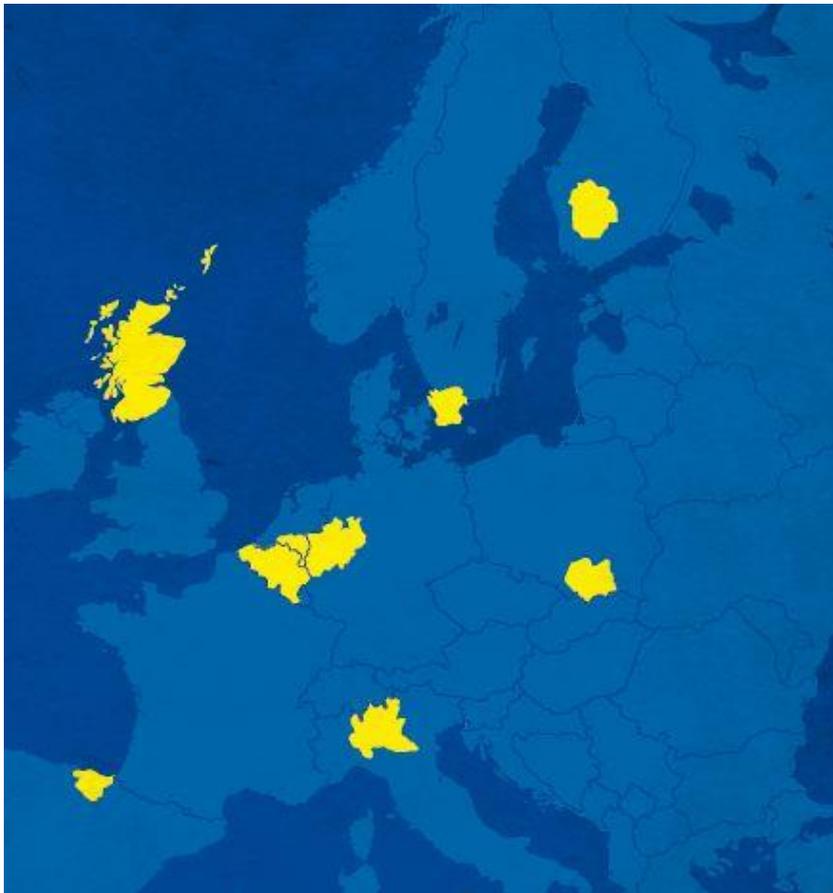
1. A **political initiative** of European regions to “**lead-by-example**” in applying **smart specialisation** as a **strategic coordination principle** in EU Innovation and Industrial Policy to promote **new growth** based on **bottom-up** dynamics in the regions.
2. Working - in cooperation with the EC - on the development of **European eco-systems** for **mapping** cooperation potential, **matching** partners, **co-investing in demonstrators and pilots** for emerging and transforming industries (**Smart Specialisation Platforms**).
3. To leverage the entrepreneurial dynamics of **regional partnerships and clusters** by combining **support instruments** at **all policy levels (multilevel synergies)**.

# Origin of the Vanguard Initiative

## New Growth through Smart Specialisation

### 8 November 2013

10 Partner Regions



Launched at the **High Level Event at the European Parliament** co-organised by DG Regio and attended by President of the Council H. Van Rompuy)

- A **'political initiative'** targeting the **European industrial policy** debate
- A **'bottom-up approach'** on new growth in Europe through smart specialisation
- **'Leading by example'** in interregional cooperation. Mobilising the **coordination power of smart specialisation.**

# Political meeting of the Vanguard Initiative

## 30 January 2014

15 Partner Regions



Results of the meeting of political leaders and their representatives:

- **Signing** of a '**Letter of Engagement for a European Industrial Renaissance**' to the President of the European Council
- **High-level debate** on common vision and action to weigh on the industrial debate held in the European Council in March 2014; **meeting** with Commission representatives
- **Formulating a response** to the Communication of the EC '**For a European Industrial Renaissance**' by offering *joint piloting of Smart Specialisation Platform on Advanced Manufacturing*
- **Deciding** on the next steps of the Vanguard Initiative and stock-taking after the new Commission is installed

**VIDEO**

<https://www.youtube.com/watch?v=slpqJ5OSJoQ>

# Letter of Engagement to President Van Rompuy

## Three Objectives

- **Political engagement** of regions for **interregional cooperation** in **European strategic priority areas** on the basis of smart specialisation : exchange of good practices and alignment of roadmaps to **achieve complementarities**.
- Focus on an **investment boost** in **demonstrators and pilots** for deploying European lead-markets (such as KETs, advanced manufacturing technologies, bio-based products, ...), supported by instruments at all policy levels.
- Upgrading regional clusters into **world-class clusters** through cross-border cooperation and networking in international value chains.

# Smart Specialisation on the European Agenda

- “Building on the work of the task forces, the Commission proposes to Member States to **combine regional and industrial policy** tools to **create Smart Specialisation Platforms** to help regions roll out smart specialisation programmes by facilitating contacts between *firms and clusters*, enabling access to the innovative technologies and market opportunities.”  
EC Communication ‘**For a European Industrial Renaissance**’, 22 January 2014
- “ ... **smart specialisation should be promoted at all levels**, including through the *efficient use of public investment in research*. This will facilitate contacts between firms and clusters and improve access to innovative technologies.”  
Conclusions of the European Council, 20 - 21 March 2014



*Starting the mainstreaming of **smart specialisation as key principle for efficient and effective innovation and industrial policies, facilitation of interregional matching.***

# Pilot action Smart Specialisation Platform Advanced Manufacturing 18 March 2014

18 Partner Regions



- **Leading-by-example:** a first illustration! Joint efforts with DG Enterprise and other Commission services.
- Two **workshops** (18 March and 15 May) with experts from the regions and EC officials
- **Questionnaire** to map priorities, actors, infrastructures ('drill-down' the RIS3)
- **Scoping Paper and Methodology** to support the work of the VI Regions in developing this platform (prepared by Technopolis with the support of DG REGIO on the basis of a questionnaire and workshops).

# Annual Meeting of political leaders and the 'Milan Declaration' 13 November 2014

18 Partner Regions,  
open to others

## 'Milan Declaration' - 'Joining Forces for Investment in the Future of Europe'

[http://www.s3vanguardinitiative.eu/sites/default/files/contact/image/final\\_declaration\\_of\\_milan\\_final\\_27\\_10.pdf](http://www.s3vanguardinitiative.eu/sites/default/files/contact/image/final_declaration_of_milan_final_27_10.pdf)



- Organised by **Lombardy** region (under Italian presidency)
- Back-to-back with the conference '**Emerging Industries**' on 13-14 November 2014
- To take stock of the **achievements** of the Vanguard Initiative, what was realised in the past year
- Showcasing the first **results** of the mapping and matching efforts in the framework of the pilot **SSP Advanced Manufacturing**
- Arranging further **cooperation** with the EC for the **Industrial Policy roadmap**



# Industrial Policy Roadmap: elements of interest for the Vanguard Initiative

- **“Value-added chains, from the procurement of raw materials to business services and distribution, as well as links with research, training and education centres must be better integrated. Cluster-facilitated demonstration projects for value chain innovation will also be financed through Horizon 2020 in support of the implementation of smart specialisation strategies.”**

EC Communication ‘For a European Industrial Renaissance’, 22 January 2014, p. 18

- **“KETs of high industrial interest, such as ... intelligent materials, high performance production and industrial bio-processes, should be strengthened by swiftly identifying projects of European interest.”**

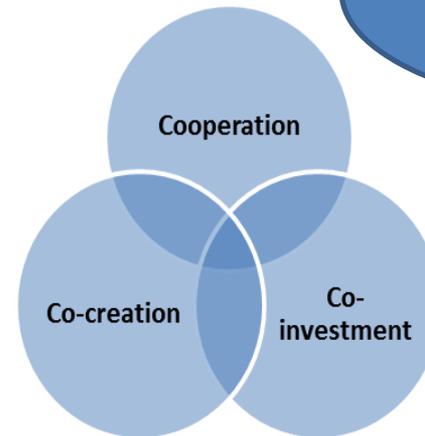
Conclusions of the European Council, 20 - 21 March 2014, p. 6

Vanguard becomes the test bed for the development  
of EU policies on Industrial Modernisation,  
piloting the Thematic Smart Specialisation Platforms



## Vanguard today

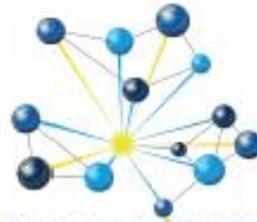
The **Vanguard Initiative** is a coalition of European regions committed to enhancing the **growth and competitiveness of their companies**, through **inter-regional cooperation, co-investment and industrial innovation** along **EU value chains**



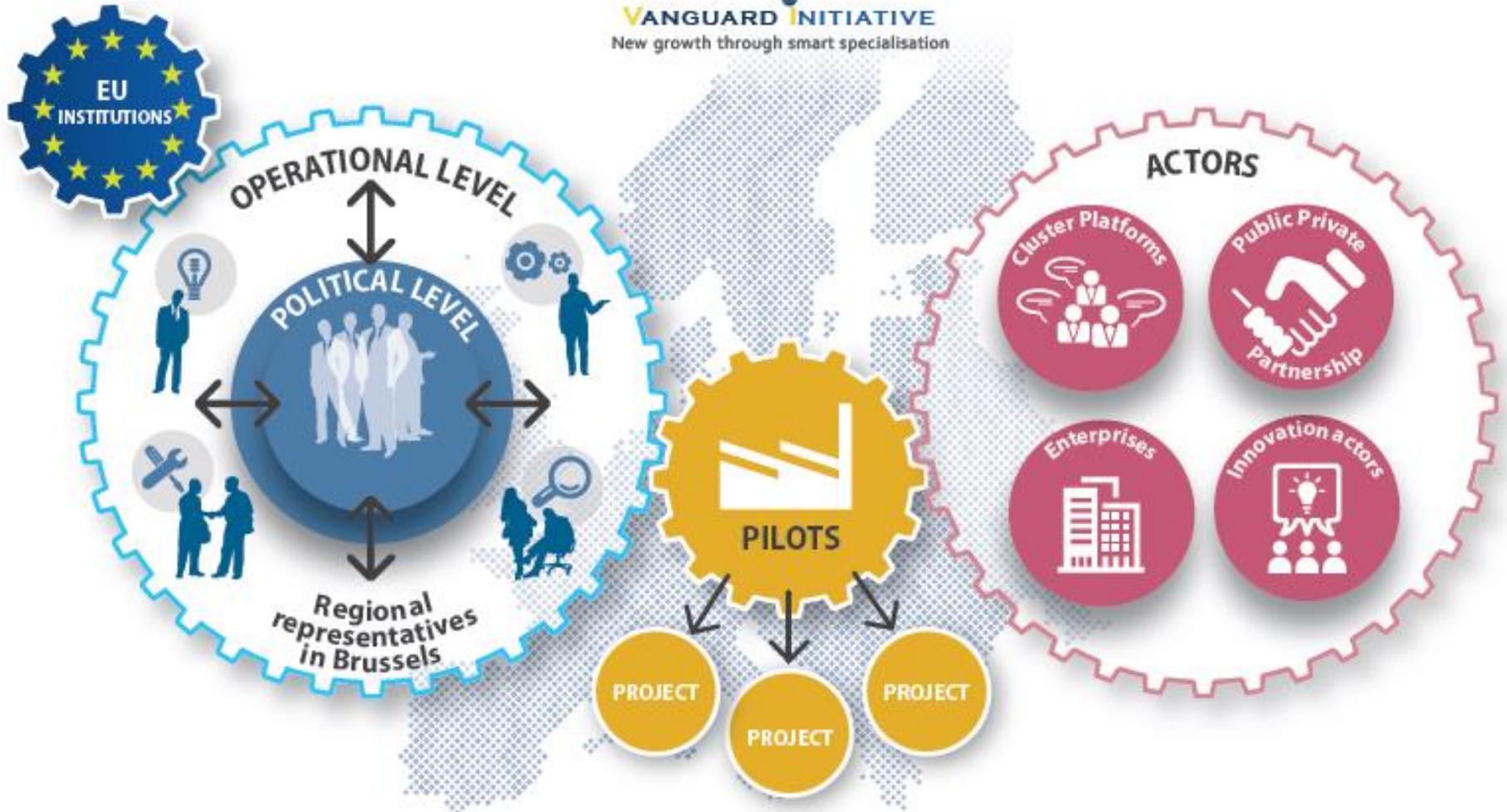
30 Partner Regions



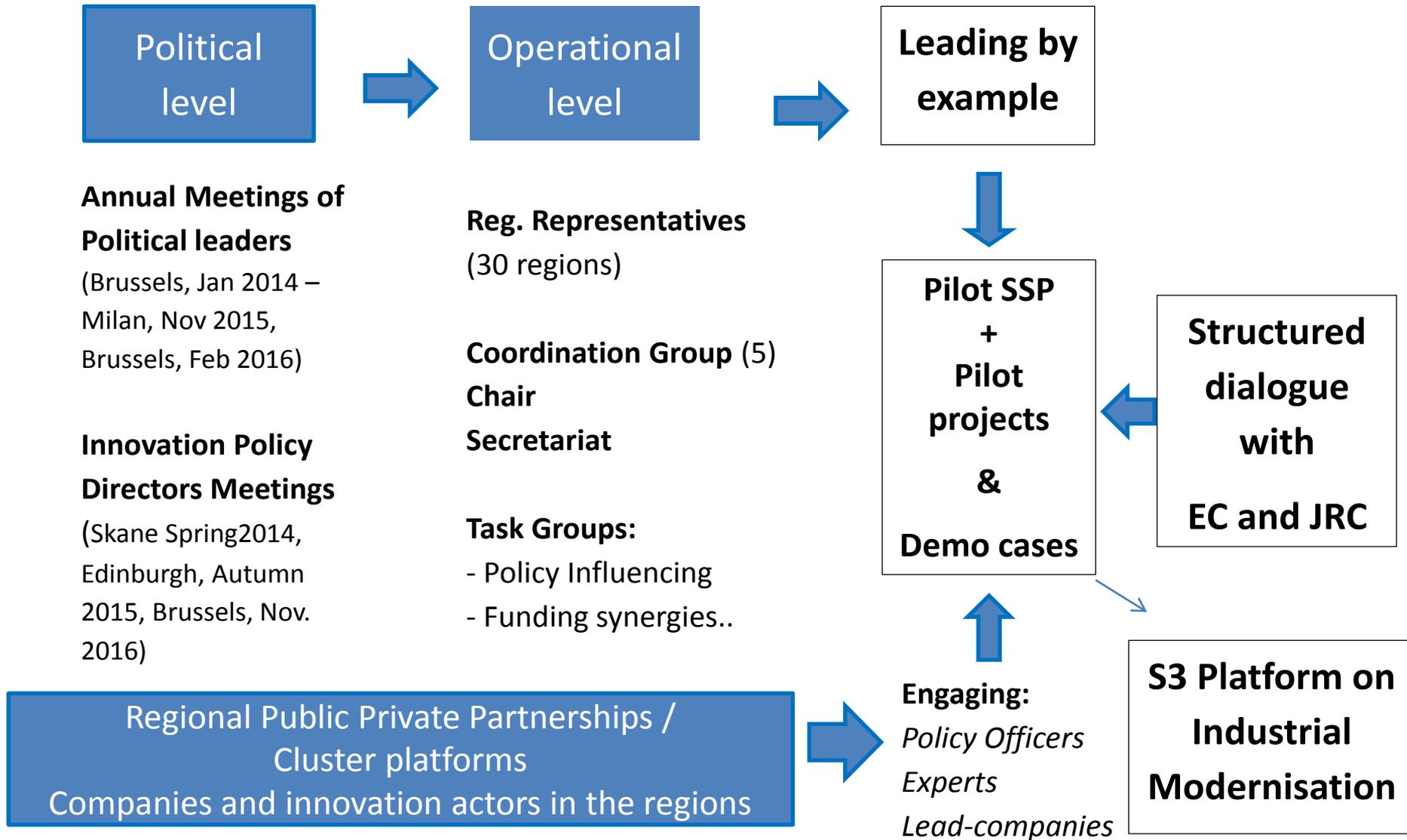
# How does Vanguard work?



**VANGUARD INITIATIVE**  
New growth through smart specialisation



# Modus operandi Vanguard Initiative



# Vanguard Initiative Pilot Projects



- Vanguard Initiative regions explore **industry-led opportunities** in specific **Key Enabling Technology** (KET) areas where inter-regional collaboration and co-investment could result in the development of **EU value chains**.
- The aim is to generate **proposals** which can be translated into **jointly funded projects or pilots**.

## ‘Conditions’:

- **Industry-leadership**
- Demonstrable international market potential for **up-scale projects/investments**
- Boost **EU-value chains** through **smart specialisation**
- **Leading by example** in supporting the implementation of European industrial policy
- **TRL >5**

# Vanguard Initiative Pilots

The **focus** is on the **joint development of networks of demonstrators and pilots** to accelerate market development in Europe for existing and emerging industries with competitive and high-value added products

## 1st generation pilots started in 2014

**High-performance production through 3D-printing** (lead: South-Netherlands, Flanders and Norte)

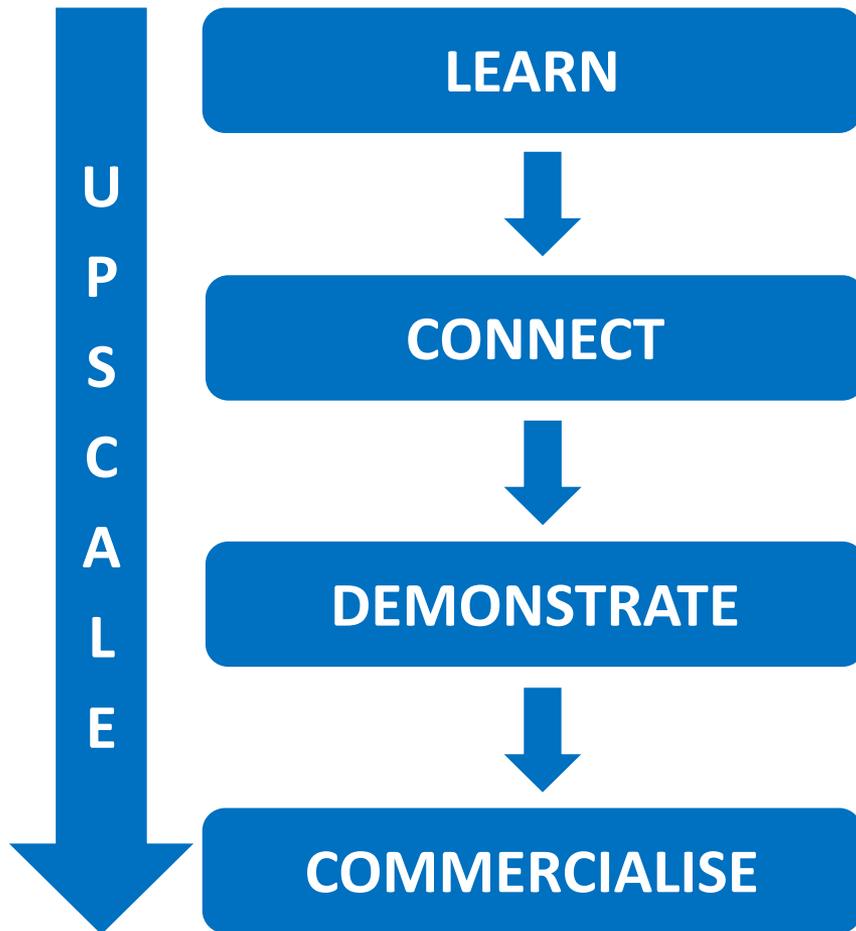
**Efficient and Sustainable Manufacturing** (lead: Catalonia and Lombardy)

**Advanced Manufacturing for Energy Related Applications in Harsh Environments** (lead: Scotland and Basque Country)

## 2nd generation pilots started in 2015

- **Bioeconomy**– Interregional cooperation on innovative use of non - food Biomass ((lead: Randstad Region and Lombardy)
- **Nano Technology** (lead: Skåne and Tampere)

# Vanguard Initiative Methodology



## Scoping paper

(common vision and methodology)

Identifying **lead regions**

Mapping questionnaire  
(potential/gaps)

Identifying **lead-actors**

(capability, capacity, opportunity)

**Matching events** for complementary partners

Project development for **new value chains**

## Networked demonstration

(Joint Demonstration Initiative)

Pilot lines and first of a kind factories

**TRL 6 – 7 - 8**

Launch of new ventures / start - ups

New value chains bring **research results to the market**

**TRL 9**

# Vanguard Initiative

## The Match Making event



VANGUARD INITIATIVE

# MATCHMAKING EVENT

25th February 2016 - Brussels

VIDEO:

<https://www.youtube.com/watch?v=7h5I6vvrkZY>

3min 23

<https://www.youtube.com/watch?v=ixDAKGapaUc>

1min 26

# Vanguard Initiative

## Where are we?

LEARN

CONNECT

DEMONSTRATE

COMMERCIALISE



ADMA Energy



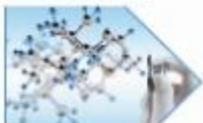
Bioeconomy



ESM



3D-printing



Nano

5 pilots:  
27 demo cases at  
different maturity  
level

Upscale

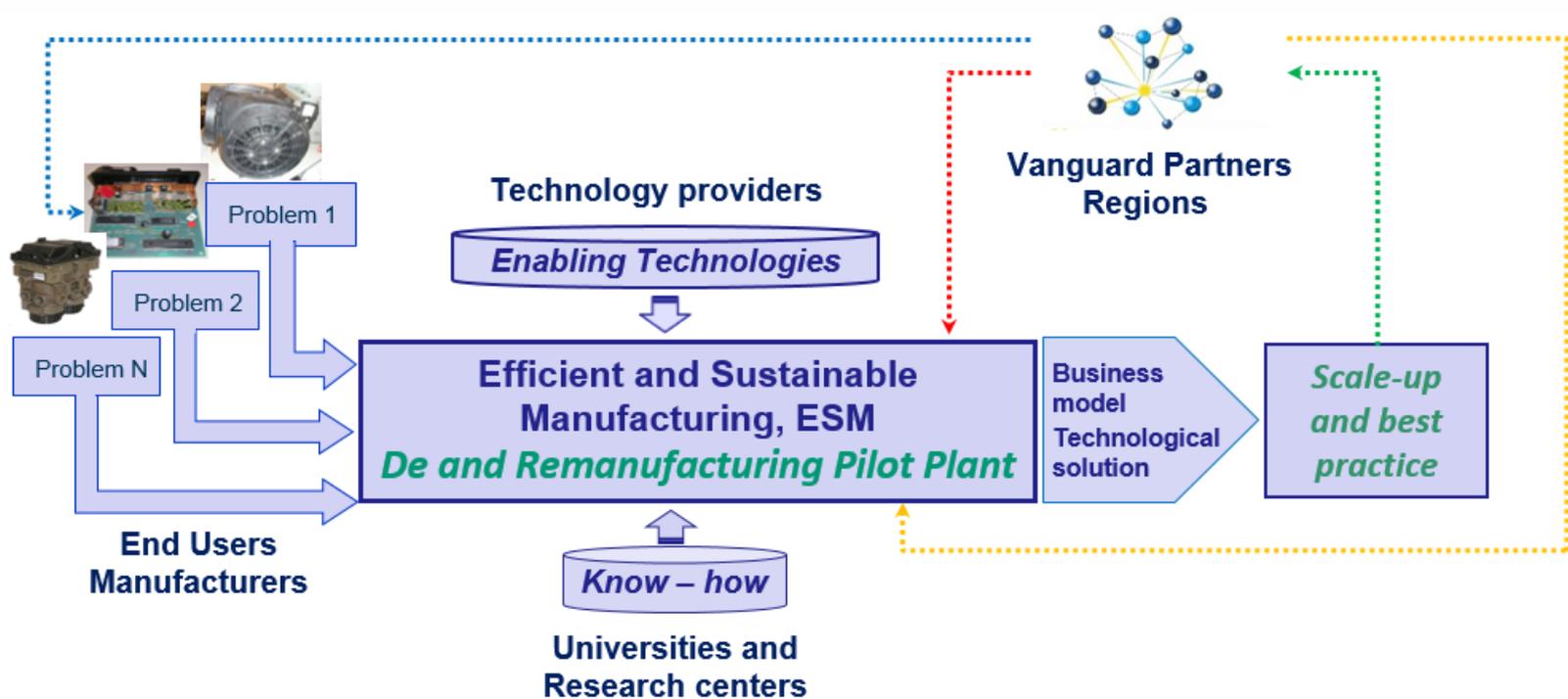
2 Demo  
cases  
developed  
a business  
plan and  
started the  
dialogue  
with the EIB



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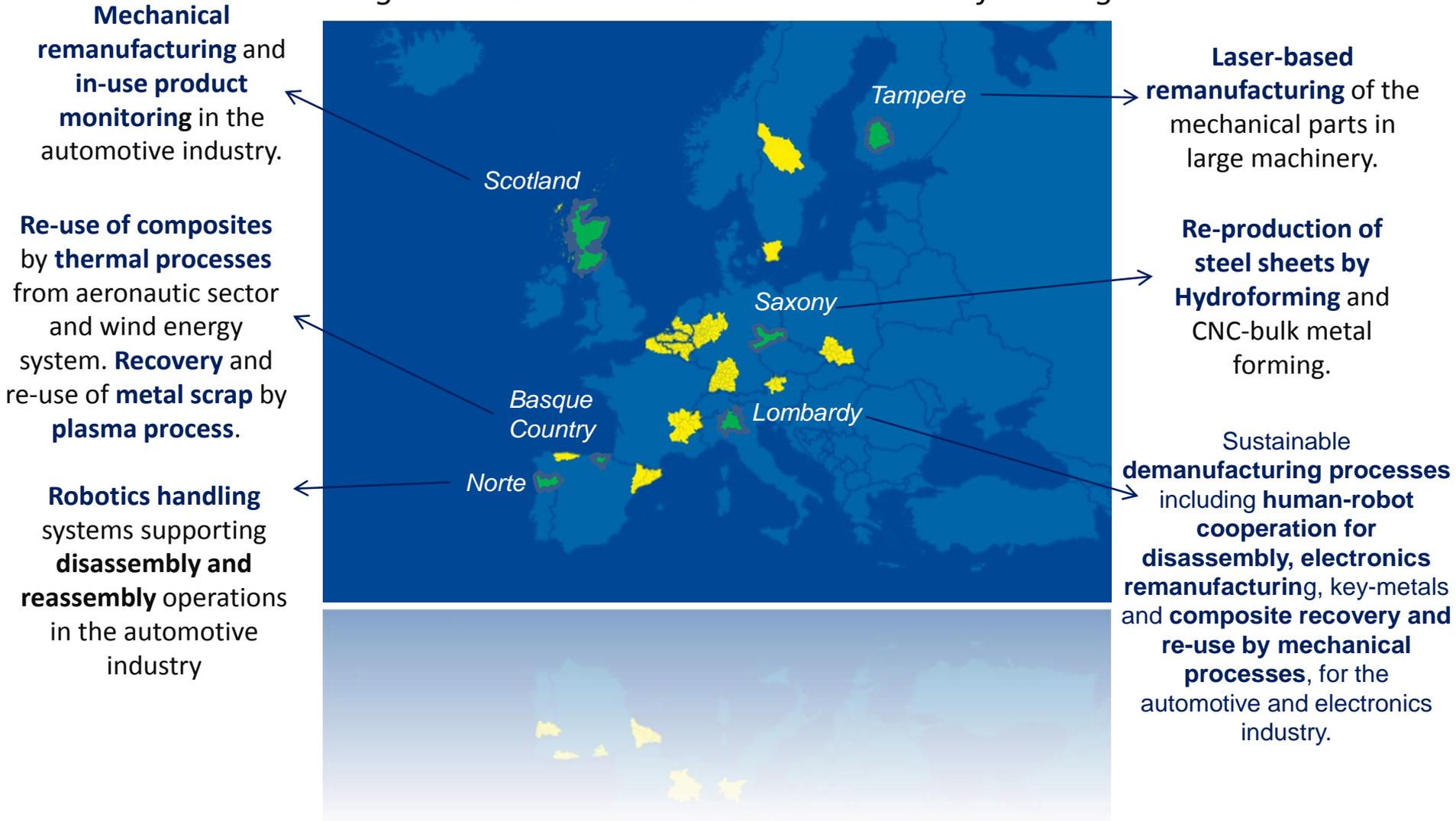
## EXAMPLE from ESM Pilot: Application Domain (Re-De Manufacturing)

The main goal of the pilot is to *integrate* a multidisciplinary set of *advanced and innovative enabling technologies* and to use the *regional smart specialization* in synergic way to offer a service to European end-users, mainly manufacturing companies, to solve specific *sustainability-oriented problems* related to their products.



# ESM Pilot Geographic Configuration and Regional Specialization

*Vanguard Pilot Network on De- and Remanufacturing*



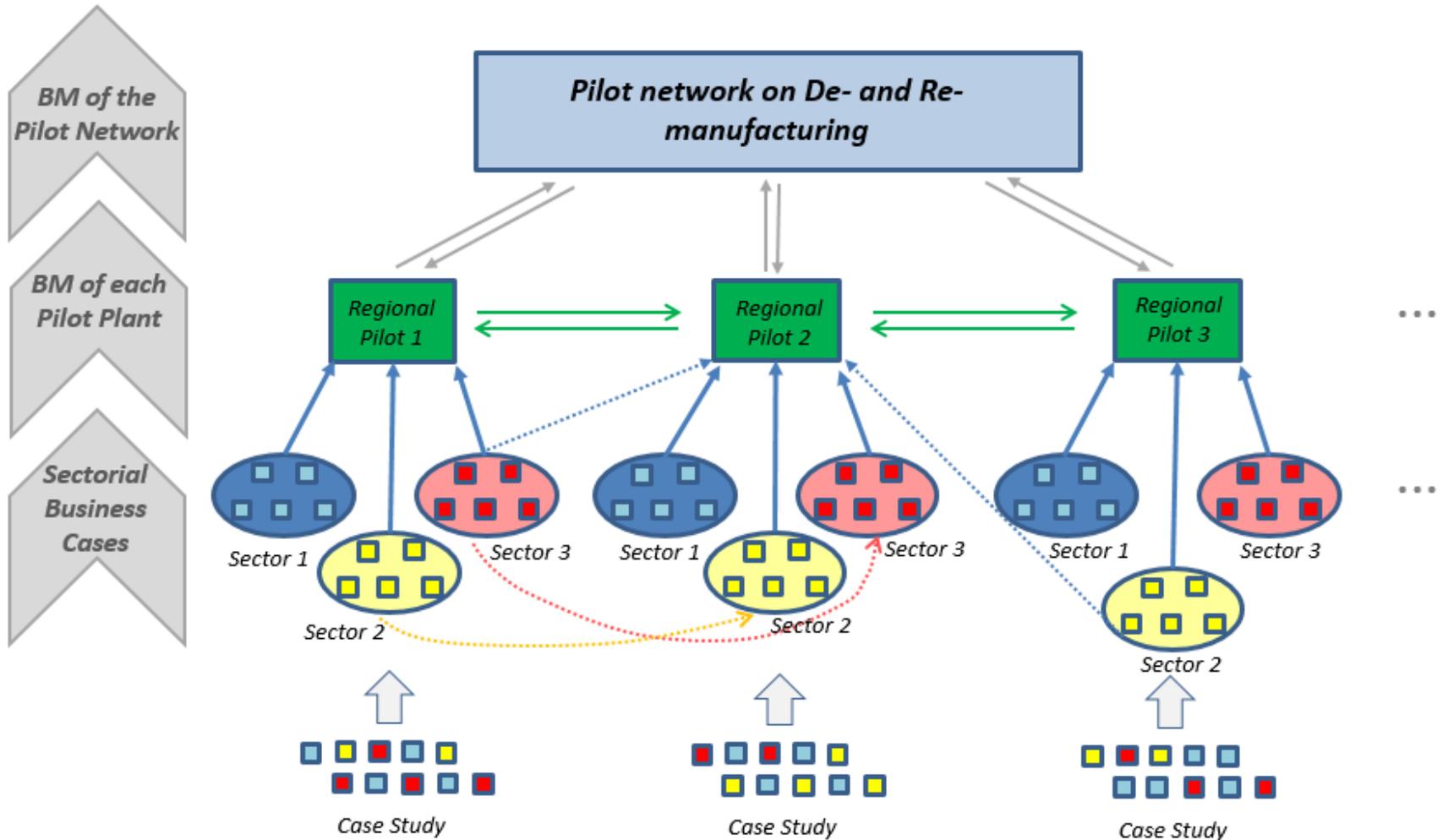
## Estimating the parameters of this business model

A detailed analysis of identified *sectorial Use Cases*, with potential industrial partners associated, has been performed, where more regions are involved. For each specific Use Case, a business case has been detailed including a business plan for the industrial take-up of the developed solutions.

Regional/Cross-Regional Use Case	Involved Regions
Composite Recovery from Wind Energy System	<u>Basque Countries</u> , Saxony, Lombardy, Tampere
Heavy machinery components remanufacturing	<u>Tampere</u> , Basque Countries, Lombardy, Saxony
Automotive parts remanufacturing	<u>Scotland</u> , Lombardy, Saxony, Norte
High-value TLC systems and Electronics Recovery	<u>Lombardy</u> , Tampere
Metal components reprocessing	<u>Saxony</u> , Tampere, Lombardy
Remanufacturing of e-motors	<u>Saxony</u> , Lombardy, Norte

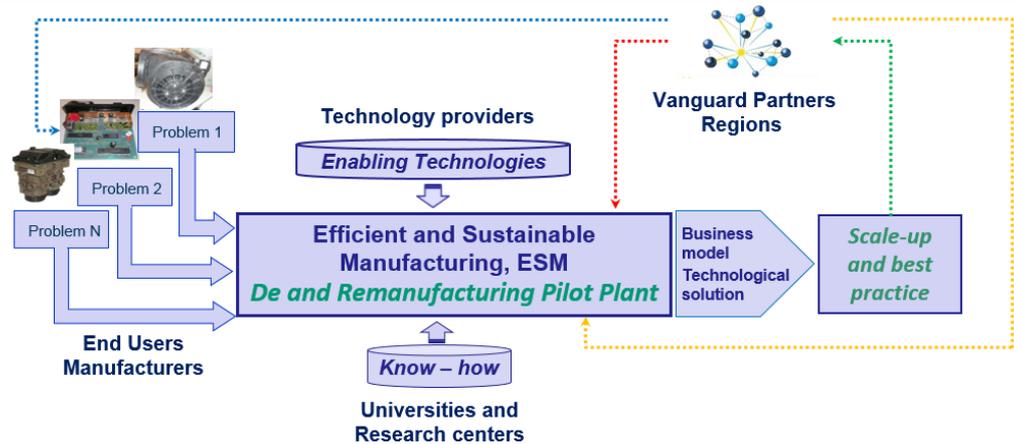
# Business Model of the Pilot Network

## Procedure for Business Model development



# Business Model of the Pilot Network

This pilot network is designed to be a “*generator*” of *new industrial pilots* for European circular economy solutions.



## Pilot Network Revenues:

- The User will pay a **daily fee** for each access.
- The User will share with the pilot network **a portion** of the **revenues** obtained by **selling the product/service** demonstrated by the business case developed by the platform.
- The core partners of the pilot (companies, universities and RTOs) will pay a **yearly fee** to be part of the pilot network and to access the generated knowledge and best practices.

## COSTS:

- Each demonstration project will have a **specific duration** and will require a group of full-time **dedicated persons** (hired and paid by the pilot network).
- **Maintenance** and **upgrade costs** of the pilot network facilities will be covered yearly by the pilot.
- A cost of **customization** of the platform for each new project will be incurred (paid by the pilot).

# Vanguard in a nutshell (for companies)

- Industrial Innovation TRL>5
- Platform for cooperation
- Partners
- Joint Pilot projects – > “demo cases”
- Methodology (4 step approach)
- Europe wide value chains – competitiveness
- Build Investment pipeline
- Business cases as test beds for testing multilevel funding synergies

Voice of companies – benefit from the participation in Vanguard

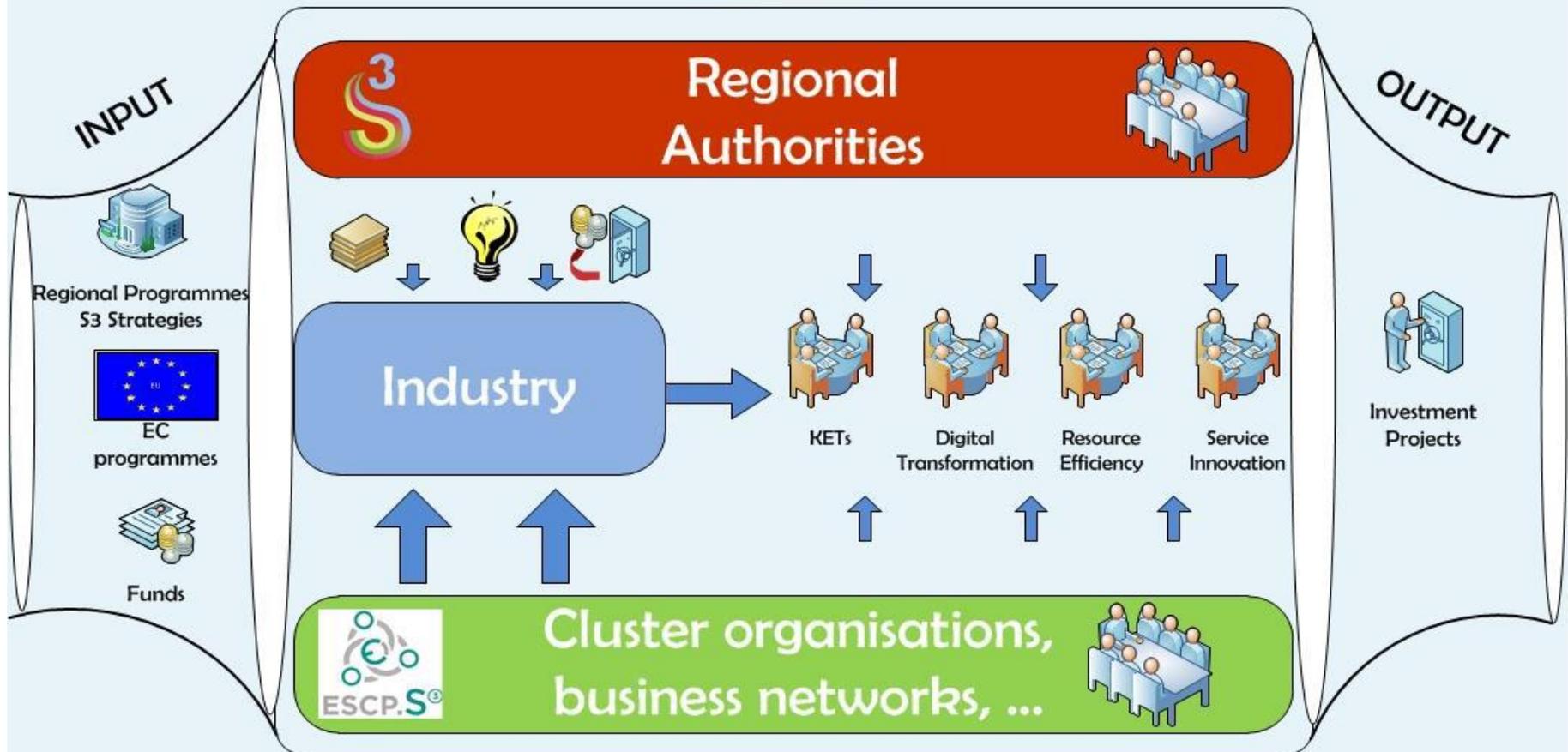
VIDEO

<https://www.youtube.com/watch?v=7h5I6vvrkZY>

# Mainstreaming of the Vanguard Methodology

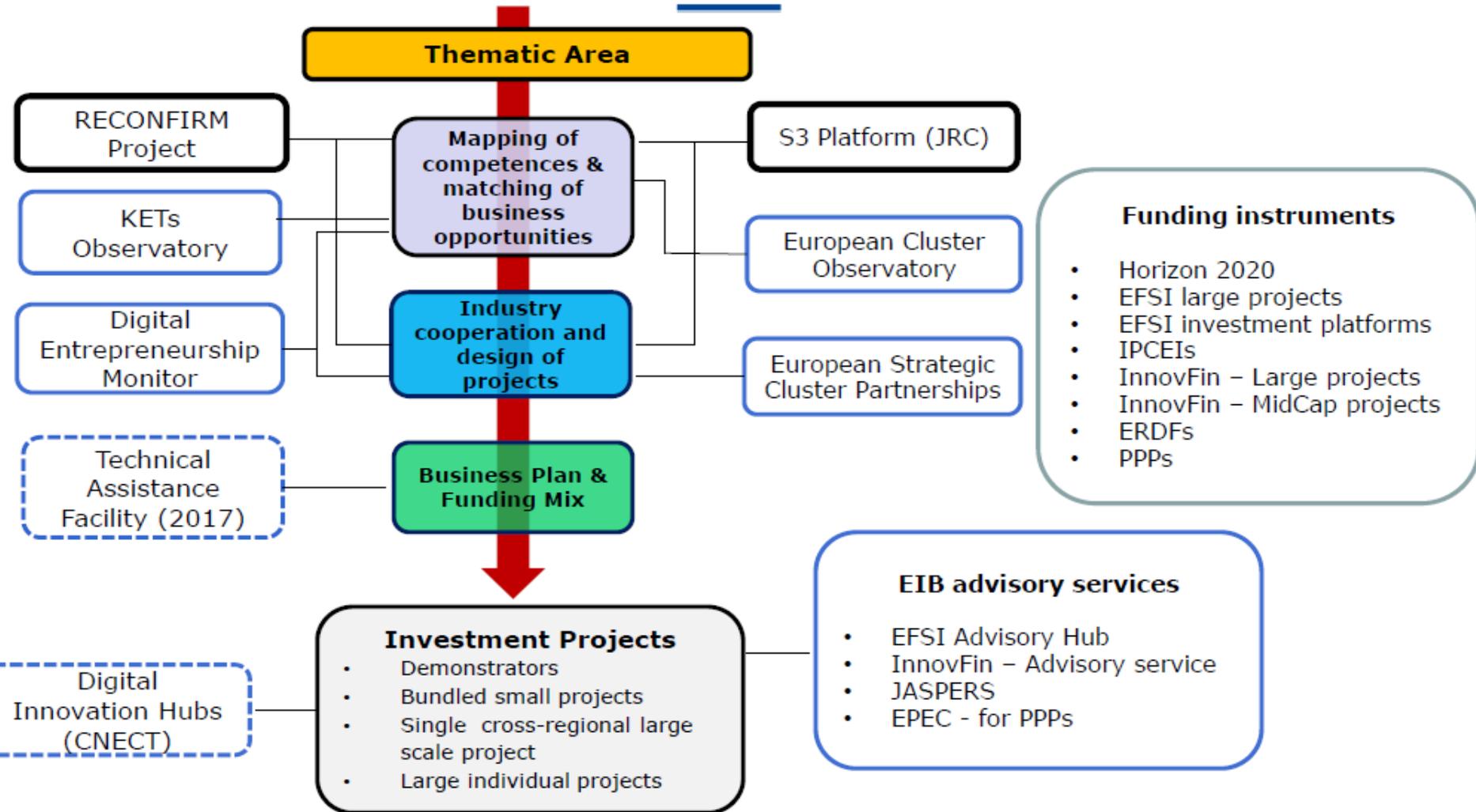
## Industrial Modernisation Platform

### PROCESS



# Smart Specialisation Platform on Industrial Modernisation (S3P IM)

European  
Commission



# S3P Industrial Modernisation and EFSI Investment Platform



European  
Commission

**Objective:** *To boost industry investments on thematic smart specialisation areas through interregional cooperation*

**The process:** *EU regions are invited to work jointly on shared smart specialisation areas, mobilise their industry, and create together a pipeline of investment projects.*

**Features:** *Open and easy-to-join Platform; Thematic areas proposed and led by EU regions;*

# S3 Platform on Industrial modernisation



- ✓ *Launched on 2 June 2016 at the Smart Regions Event;*
- ✓ *It will be hosted under the JRC/IPTS web site;*
- ✓ *Already two regional partnering meetings have been organised in May and June 2016;*
- ✓ *First candidate thematic areas proposed such as on De & Re-Manufacturing; High Performance Production through 3D printing; Textile innovation*

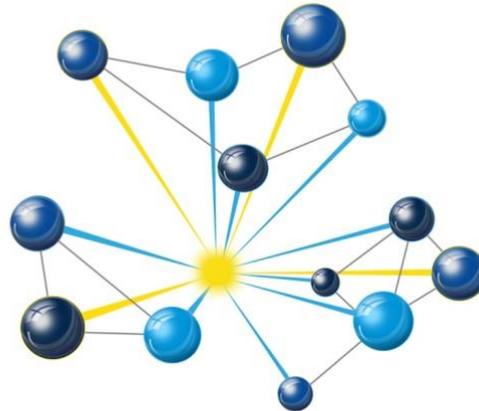
**Link to EFSI investment platforms**

# Vanguard Methodology: a tool for the implementation of Macroregional Strategies?



“ESIF and other funds are set to support the strategy’s objective in relation to SME development in Alpine Region”.

Investment Platforms can attract and combine resources from different parties and catalyze investments by bringing together relevant actors and stakeholders



## VANGUARD INITIATIVE

New growth through smart specialisation

# Conclusion

**The Vanguard Initiative is a clear example of the power of regional innovation ecosystems and of the added benefit that can be achieved if they are connected together.**

Questions?

[www.s3vanguardinitiative.eu](http://www.s3vanguardinitiative.eu)