



KIC Added-value Manufacturing: Exploiting synergies and complementarities with EU policies and programmes

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Overview

1. European manufacturing
2. Modernisation of industry (DG GROW)
3. Manufacture ETP and Factories of the Future PPP (DG RTD)
4. Towards a digitising European industry (DG CNECT)

- **EU manufacturing: engine for growth and jobs**

- 30 million jobs directly (twice as many indirectly)
- 80% of total EU export
- 80% of private R&D expenditure

- **Advanced manufacturing: key to secure robust industrial base**

- Value creation: 1,6 million jobs, 11% of total EU-28 production
- Europe has still a dominant position (patenting, trade)... but pressure is high (especially from East Asia)
- Lack of investments by European manufacturing industry which hampers productivity and innovation



SMEs **grow** two-three times **faster** when they embrace digital means

Almost half of European manufacturing companies have not used advanced manufacturing technologies in the past and do not plan to use them in the next years.

Source: Innobarometer 2015



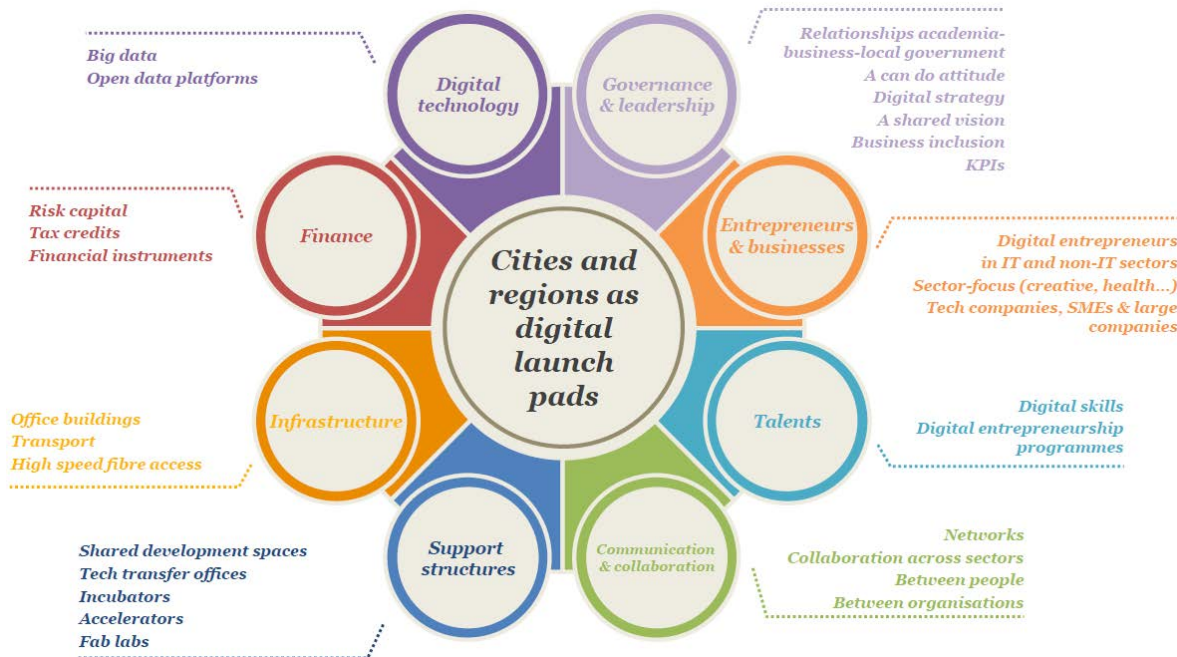
Speeding up deployment and uptake for a modern, competitive and sustainable industry!



Modernisation of industry driven by advanced technologies and digital transformation

- 1. Strengthening regional ecosystems and foster partnerships**
 - Thematic Smart specialisation platform for industrial modernisation & investment, with specific focus on uptake advanced manufacturing
 - Foster opportunities for cross-regional investment partnerships
 - Strategic cluster partnerships for smart specialisation investments
 - Cities as launch pads for digital transformation
 - Facilitating ambitious public-private investments, e.g. important projects of common European interest
- 2. Ensuring businesses have easy access to advanced technologies and (technical, financial, market) expertise**
 - Cross-border networks of technology centres with easy and pan-European access to companies (e.g. in area advanced manufacturing)
 - Enhance pan-European collaborations between competence centres, clusters and SMEs
- 3. Creating appropriate regulatory conditions, achieving interoperability (standards) and action on B2B digital platforms**

Cities as launch pads of digital transformation



- Launch pads for digital transformation in Europe;
- A pan-European network of digital transformation excellence;
- Role of local players e.g. mayors, local business leaders, entrepreneurs, universities, business angels, civil society and local NGOs;
- Advanced digital city development model, a European blueprint (May 2016) to facilitate the inception of new centres of digital transformation and ultimately drive economic growth.

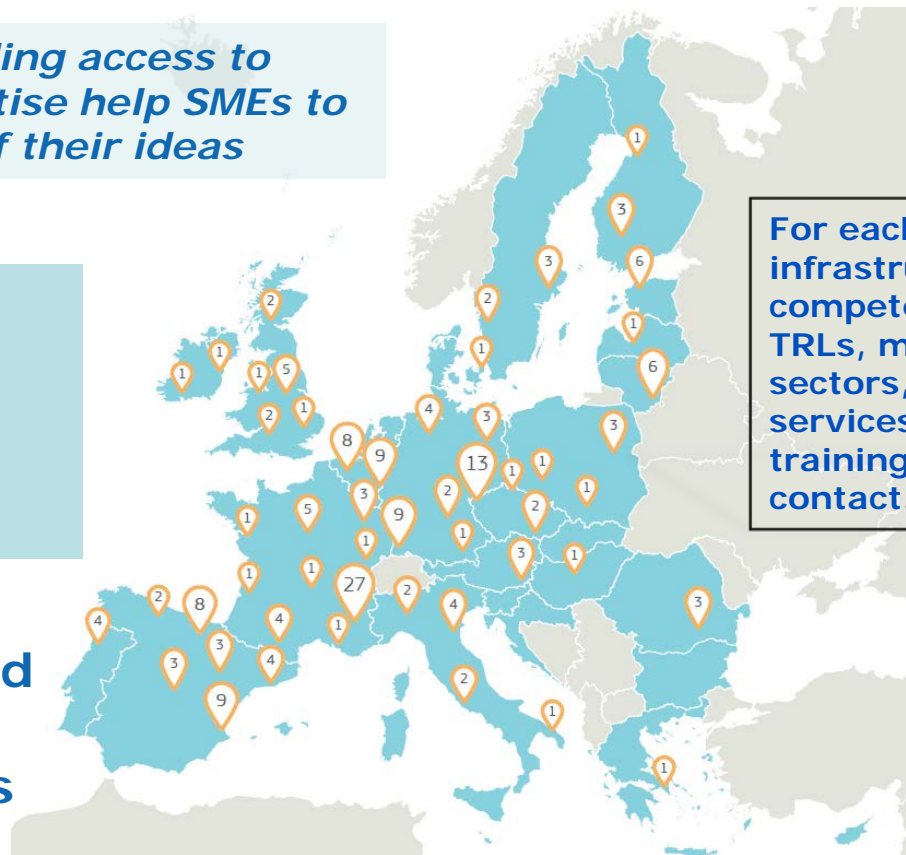
European KETs Technology Infrastructures providing services to SMEs (Sept 2015)

Webtool online at <https://ec.europa.eu/growth/tools-databases/ketsobservatory/kets-ti-inventory/map>

Technology infrastructures providing access to technology, equipment and expertise help SMEs to speed up the commercialisation of their ideas

Total of 187 KETs Technology Infrastructures (incl. 130 in advanced manufacturing)
60% in only 4 countries (DE, ES, FR, UK)

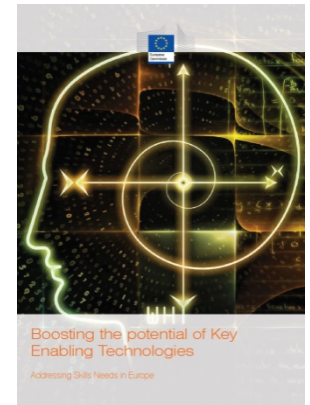
Need for networking and pan-European access to SMEs



For each infrastructure: competences, TRLs, market sectors, services, trainings, SME contact...

4. Promoting industrial skills

- KIC: promotion of skills for combination of KETs
- **Supporting STEM and key transversal skills**
 - **Digital & KETs skills** (incl. advanced manufacturing) and **entrepreneurship**
 - **Report on "Skills for KETs"** (March 2016)
 - **Skilling up for the future of Europe:**
16 March 2016, The Hague www.eskills4jobs.nl
 - **e-Skills for Jobs 2016 campaign**
- **Strengthening the industrial sectoral dimension**
 - Sectoral cooperation on skills in number of industries
 - New tools and models (innovative workplace concepts, industry-led upskilling) and involvement of regions
- **Bridging regional disparities**
- **New Skills Agenda for Europe** (May 2016)





European Technology Platform ManuFuture, a success story since 2003

- bringing together stakeholders from industry, research organisations and academia
- supporting 28 national/regional technology platforms in many EU countries
- promoting specific sectors/technological areas with the work of its sub-platforms such as additive manufacturing, joining, safety and others
- leading cross-ETP collaboration tackling societal challenges
- advocating the need for a KIC on AVM since 2013.

More info at: <http://www.manufuture.org>



Public Private Partnership Factories of the Future, for a competitive and sustainable EU manufacturing

Since the launch in 2009 about:

- 200 projects funded with a strong industrial focus
- 1300 organisations participating
- 60% industrial participation
- 30% funding to SME's
- projects addressing the needs of industry, facilitating the creation of jobs and growth.

More info at: <http://www.effra.eu>

Towards a Digitising European Industry strategy

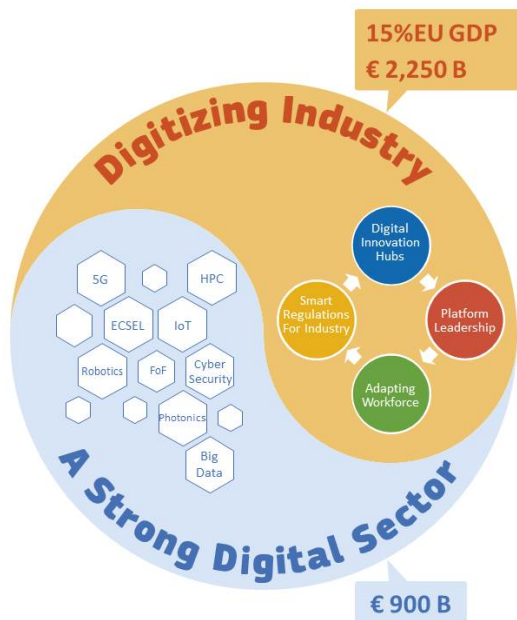
European
Commission

European
Commission

Ensure that every business in Europe wherever situated can fully benefit from digital innovations to create higher value digitised products, maximise efficiency of its processes and adapt its business models"



Commissioner Oettinger



1. Access to latest technology for any industry in Europe
2. Leadership in digital platforms for industry
3. Skilling our workforce for digital change
4. Framework conditions for smart industry

<http://ec.europa.eu/digital-agenda/en/digitising-european-industry>

Pillar 1: Access to digital technologies and expertise for any industry in Europe

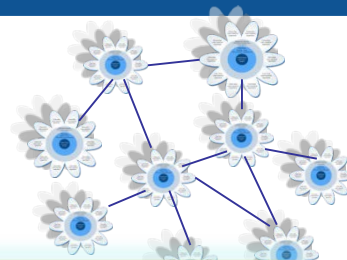


European Commission

European Commission

A "Digital Innovation Hub" in every region based on:

- World class specialised competence centre
- able to provide industry with access to knowledge, technology development means and testing facilities



**Investments level:
up to 12 B€ in the next 5 years**

➤ Collaborate with digital innovation hubs of other regions to fill gaps and facilitate specialisation and excellence

➤ Support pan-European networking of Digital Innovation Hubs

- ✓ Share best practices, success stories, training
- ✓ Develop catalogue of Hubs, competences, etc

➤ Promote use of EU and other funds (ESIF, EFSI)

➤ Engage with competence centres, help set priorities,..

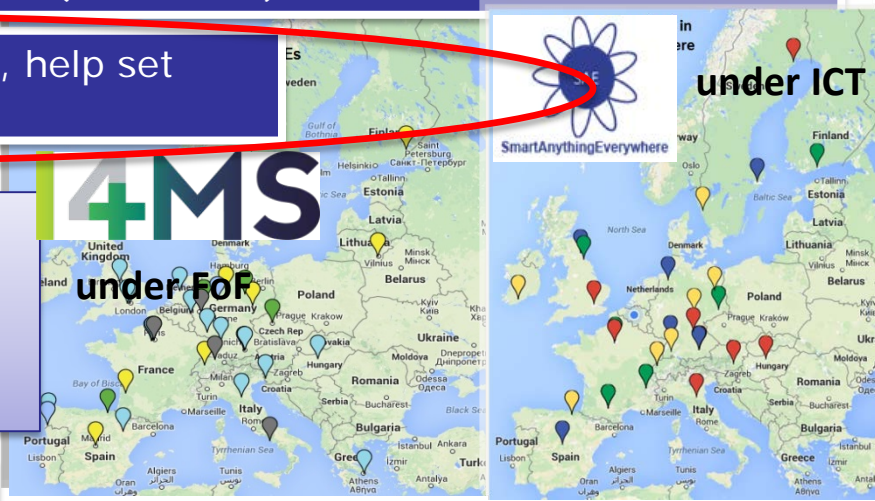
Region

European Commission

Industry

**Building on, and expanding successful actions
EU support so far:**

- ~225M€ (2013-15) – 23 projects – 80 centres – +500 experiments





Pillar 2: Leadership in Platforms

European leadership in open digital platforms for industry, and "technology gateways" that any business can use

- ❑ Building on strengths in vertical markets
- ❑ Develop Europe's presence in cross sector platforms (IoT, Data, web, consumer,..)

**Investments level:
up to 10 B€ in the next 5 years**

European Commission

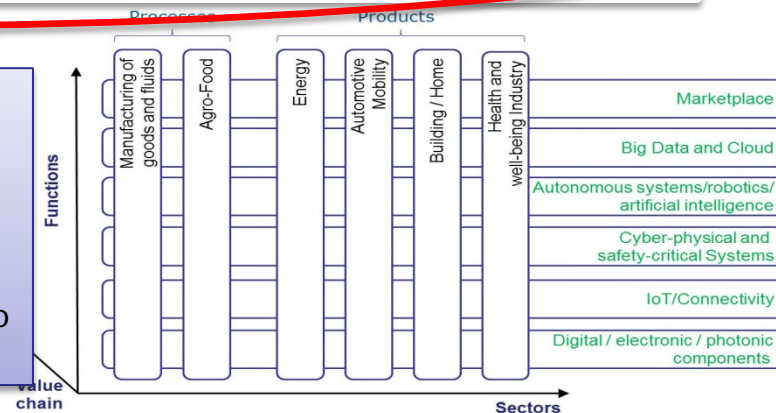
- ✓ In the PPPs: ECSEL, FoF, Big Data, and IoT Focus Area
- ✓ Collaboration across "silos"
- ✓ Access to local experimentation environments across MSs

Industry

- Assume leadership role in platform building
- Collaborate in PPPs to align EU, MSs, regional initiatives
- Intensify strategic alliances and cooperation
 - ✓ e.g. in standardisation bodies and in international co-operation

An EU-wide effort on next generation platforms

- Focus, up-scale and further integrate R&D&I on core platforms
- Reinforce the development of EU reference architectures
- Support experimentation environments such as reference implementation, test-beds, large-scale demonstrators
- Foster constituency building across value chains and vertical silo





THANK YOU

DG Internal Market, Industry, Entrepreneurship and SMEs

Key Enabling Technologies:

http://ec.europa.eu/growth/industry/key-enabling-technologies/index_en.htm

Digital transformation:

http://ec.europa.eu/growth/sectors/digital-economy/entrepreneurship/index_en.htm

DG Research and Innovation

http://ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html

<http://www.manufuture.org/manufacturing/>

DG Communications Networks, Content & Technology

Digitising European Industry

<http://ec.europa.eu/digital-agenda/en/digitising-european-industry>