

[illegible]

- 1

10 priorities

01



A new boost for jobs, growth and investment.

02



A connected digital single market.

03



A resilient Energy Union with a forward-looking climate change policy.

04



A deeper and fairer internal market with a strengthened industrial base.

05



A deeper and fairer Economic and Monetary Union (EMU).

06



A reasonable and balanced free trade agreement with the United States.

07



An area of Justice and Fundamental Rights based on mutual trust.

08



Towards a new policy on migration.

09



Europe as a stronger global actor.

10



A Union of democratic change.



The EU Digital Single Market dsm

European
Commission

2015

2016

I. Better access for consumers and businesses to digital goods and services across Europe

Legislative proposals for simple and effective cross-border contract rules for consumers and businesses



A wide ranging review to prepare legislative proposals to tackle unjustified geo-blocking

Review of the Regulation on Consumer Protection Cooperation

Measures in the area of parcel delivery



Competition sector inquiry into e-commerce, relating to the online trade of goods and the online provision of services

Legislative proposals for a reform of the copyright regime

Review of the Satellite and Cable Directive

Legislative proposals to reduce the administrative burden on businesses arising from different VAT regimes

II. Creating the right conditions for digital networks and services to flourish

Comprehensive analysis of the role of platforms in the market including illegal content on the Internet



Legislative proposals to reform the current telecoms rules

Review of the e-Privacy Directive



Review of the Audiovisual Media Services Directive

Establishment of a Cybersecurity contractual Public-Private Partnership

III. Maximising the growth potential of the Digital Economy



Adoption of a Priority ICT Standards Plan and extending the European Interoperability Framework for public services

Initiatives on data ownership, free flow of data (e.g. between cloud providers) and on a European Cloud

New e-Government Action Plan including an initiative on the 'Once-Only' principle and an initiative on mandatory interconnection of business registers

"Digitisation of European Industry"

Digitising European Industry the rationale

European
Commission

Why do we need this?

For a smooth transition
to a smart economy

To prepare the next generation
of products & services

To boost innovation capacity
across industry

To increase EU GDP
by €110bn/year

European Industrial Strengths

EU companies are world leaders in



Manufacturing



Electronics
for automotive
& aerospace



Electronics for
security & energy



Robotics



Telecom
equipment



Business &
professional
software



Laser & sensor
technologies

World-class Research & Technology institutions



Traditional sectors & SMEs



Construction



Food & beverage



Textiles



Publishing & printing



Craft industries

*They can all
benefit
from
Digital
opportunities*

Digitisation of European Industry impact

- A potential 1 Trillion Euro added to GDP¹
 - in the next 10 years from digitisation
- Loss of 600 B€ of GDP per year if Europe lags behind¹
 - If Europe is slow in in digital transformation
- An annual 10% increase in industry Added Value¹
- Up to an additional \$2.2 trillion to US GDP by 2025²

¹ Roland Burger. *Think, Act. Industry 4.0. The New Industrial Revolution*. March 2014

² McKinsey. *Digital America*. Dec. 2015

Digitising European Industry the policy framework

European
Commission

Digitising European Industry

To facilitate coordination of European, national & regional initiatives
such as Industrie 4.0 (DE), Smart Industry (NL) (SK), Industrie du Futur (FR)

Mainstreaming digital innovation across all sectors:

Setting up a pan-European network
of Digital Innovation Hubs

Strengthening leadership in digital technologies

- Public-Private Partnerships
- Industrial platforms
- Large scale pilots & test beds

Preparing People for the digital age: Skills & Training

Regulatory framework:

- Free flow of data & data ownership
- Safety & liability of autonomous systems & Internet of Things

Challenges &
opportunities of the
**Internet
of Things**

CLOUD



European Cloud Initiative in a data-driven economy:

- European Open Science Cloud
- European Data Infrastructure
- Widening access & building trust

High
Performance
Computing

Quantum

STANDARDS



Fast development in 5 priority areas:

- 5G
- Cloud Computing
- Internet of Things
- Data Technologies
- Cybersecurity

DIGITAL PUBLIC SERVICES



eGovernment Action Plan:

- New Digital Single Gateway
- eJustice Portal
- "Once-only" principle in Administrations
- Cross-border Health services
- eProcurement & "Once-only" in public procurement

To focus investments

(Horizon 2020, EU Investment Plan, EU Structural & Investment Funds,
national & regional funds, private sector)

MOBILISING €50bn of public & private investments

 #DigitiseEU
@DSMeu

 DigitalSingleMarket

bit.ly/DigitiseEU

Objective

Ensure that any industry in Europe, big or small, wherever situated and in any sector can fully benefit from digital innovations to upgrade its products, improve its processes and adapt its business models to the digital change

This requires:

- **a strong digital industry**
- **the integration of digital innovations across all sectors of the economy**
- **a comprehensive policy initiative**
 - **combining policy instruments (financing, legislation, coordination)**
 - **steering bottom up innovation as well as supporting focused actions**

Value Creation from Digitisation three dimensions

"Digital inside": Innovations in products



~40 % AV growth



~50%

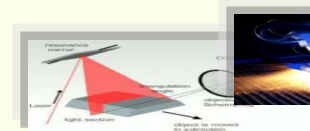
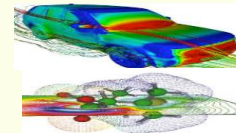


~40%

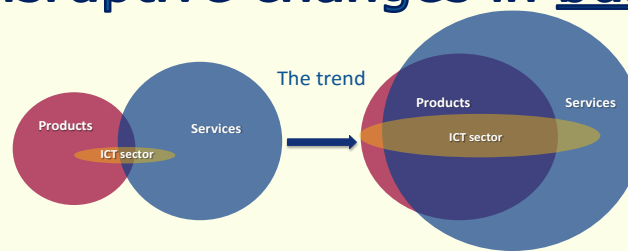


~80%

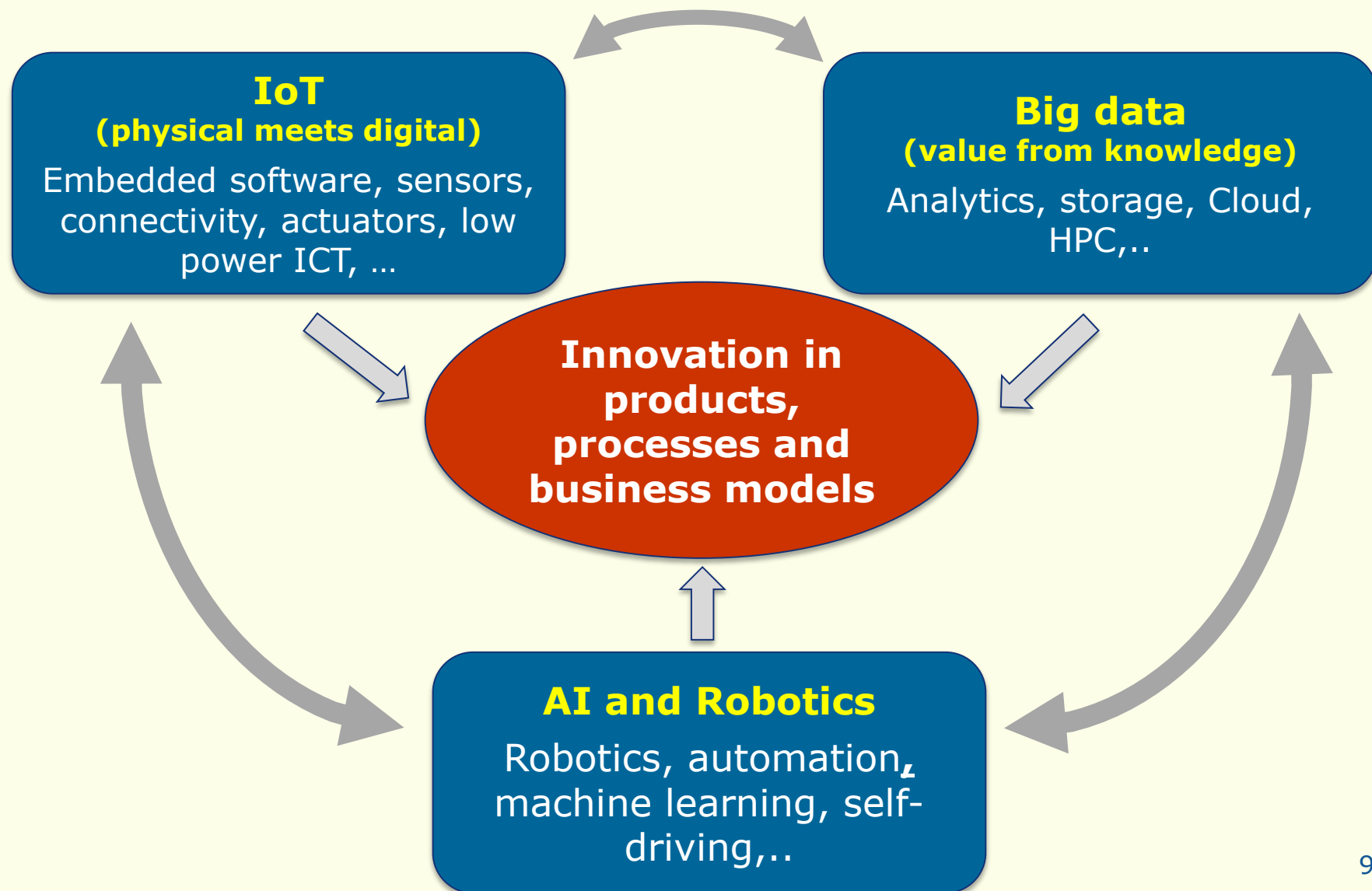
Digital transformations of processes



Radical/disruptive changes in business models



Digitisation of European Industry technologies



Despite the strong digitisation in high tech industries in some countries/regions, we face:

- **Slowness & disparities in adopting digital solutions**
 - SMEs & non-tech sectors lagging behind
 - Less than 2% of SMEs use advanced digital technologies
- **New competition from non-EU internet/web industry**
 - e.g. Web and Data platforms, Operating Systems,...
- **Fragmented landscape of standards and lack of interoperability**
 - ~30 national initiatives: Industrie 4.0, Smart Industry, Industrie du Futur,...
- **Need for digital skills and re-skilling of work force**
- **Legislative and regulatory issues**

- **EU-level coordination framework**
 - Efficient articulation and scaling-up of national initiatives
- **Boosting digital innovation capacity**
 - Mainstream Digital Innovations across all sectors
 - Access to technology, know-how for any business
 - Partnerships for leadership in digital value chains
 - PPPs as aggregators, focus on industrial platforms
 - Standardisation
 - prioritisation, Accelerating industry-driven standardisation
- **Adapting legislation when needed**
 - Eliminate barriers for wide deployment of digital innovations
- **Preparing Europeans for the digital age**
 - Upskilling of the workforce, rethinking the workplace

Digitising European Industry action plan



Linking up and coordinating EU, national and regional initiatives

Boosting EU Innovation Capacity

A pan-EU network
of **Digital Innovation Hubs**

Leadership through
Partnerships & Platforms

ICT Standards and
Interoperability

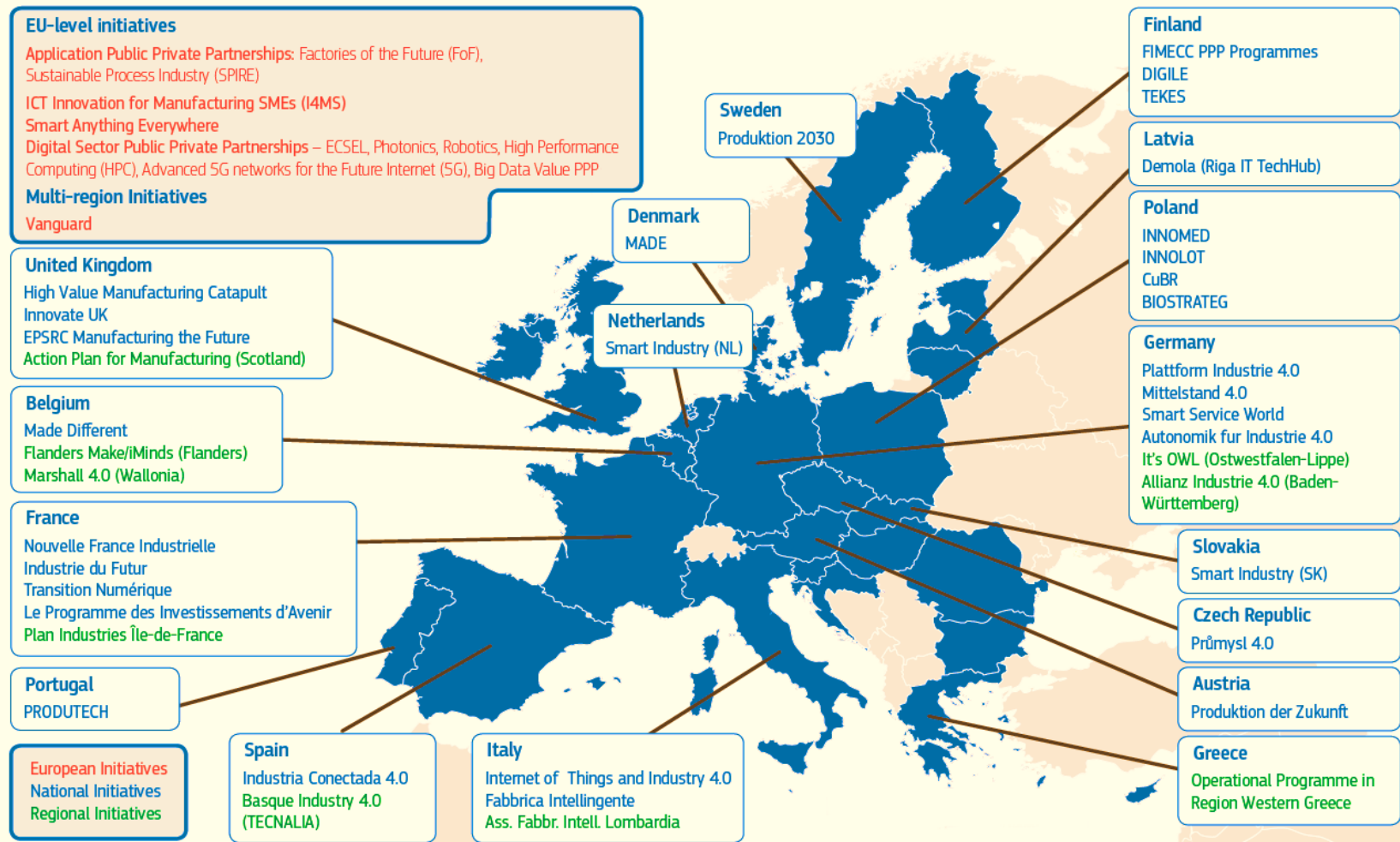
Smart
Regulations
for Industry

Preparing
Europeans
for the
Digital Age

Action Plan

- Leadership in digital technologies
- Digital innovation in all industries
- Smart regulation for industry
- Preparing Europeans for the digital age
- A framework for coordination

Digitising Industry initiatives across Europe



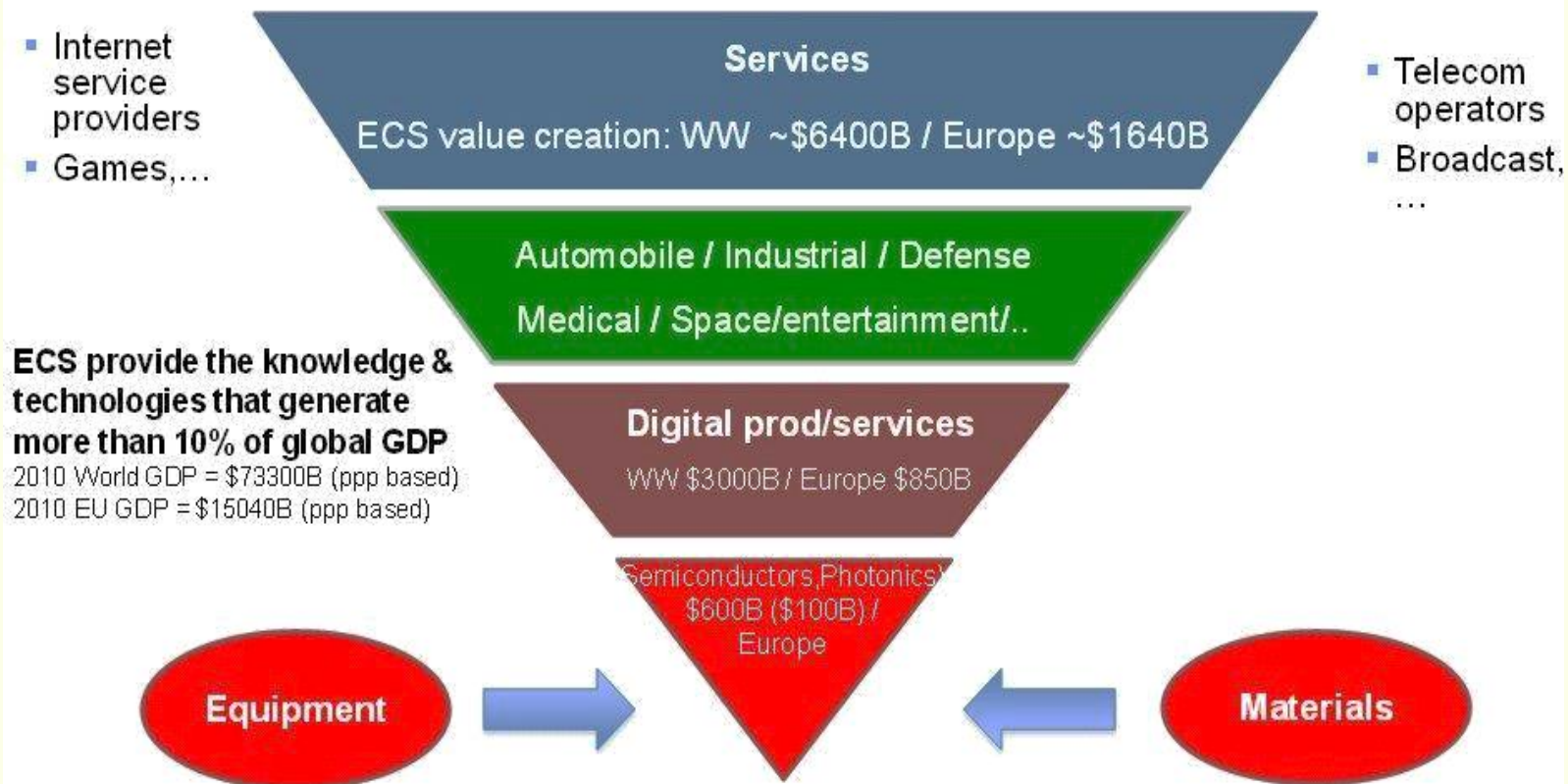
Building on, and expanding successful actions



Status (EU support so far):

- ~150 M€ (2013-14)– 14 projects – 80 centres – 400 experiments
- ~75 M€ in 2015

The digital value chain



Source: DECISION, ESIA, Future Horizons, IMF, WSTS – 2010 figures

Public-Private Partnership

ppp



The digital value chain

Cybersecurity

Big Data

High Performance Computing

Robotics

5G

Photonics:

Internet of Things (LS Pilots)

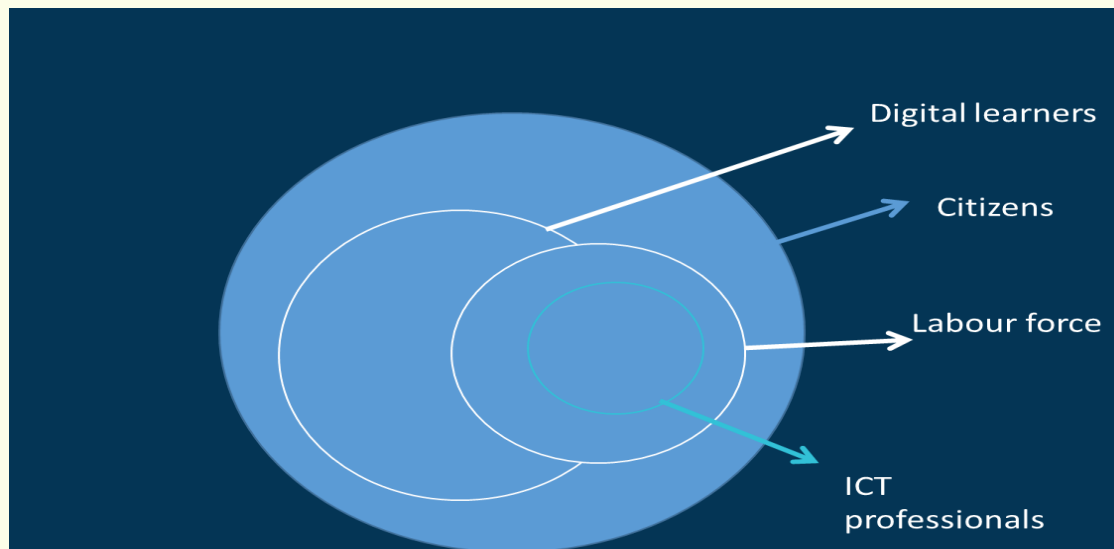
ECSEL: micro electronics and cyber physical systems

Factories of the Future, Process Industry

Adapting regulation to eliminate barriers for digitisation

- Free flow of data across the EU, including ownership and use of data in an industrial context
 - Personal data governed by General Data Protection Regulation (fundamental right)
- Liability and safety
 - for autonomous and AI-based systems
 - for the Internet of Thingsto allow large scale testing in real life environments
- Safety of apps and other non-embedded software not covered by sectoral legislation

- Jobs will change and many will disappear
90% of jobs require some level of digital skills
- One third of the EU workforce has insufficient digital skills
- 40% of enterprises trying to recruit ICT professionals have difficulty doing so
800,000 vacancies in the EU by 2020



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- Global approach to digitisation
science and technology
infrastructures
data
 - Standards and interoperation
networks, platforms, services
 - The 5G case
spectrum, radio interface, ...
 - Internet of Things, Cybersecurity, ...

Fostering a virtuous circle



Thank You

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Digitising European Industry

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