



Digital Innovation Hubs in the LEIT/ICT workprogramme 2018-2020

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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

Focus area "digitising and transforming European industry and services"

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

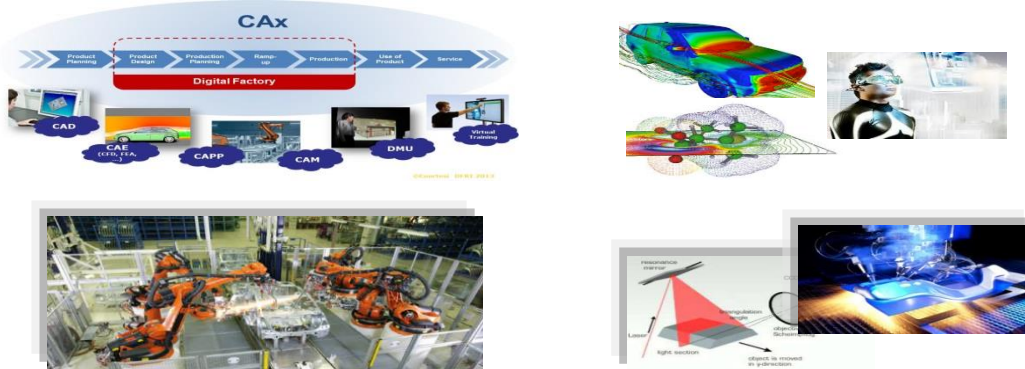
bit.ly/DigitiseEU

Three dimensions of Value Creation from Digitisation

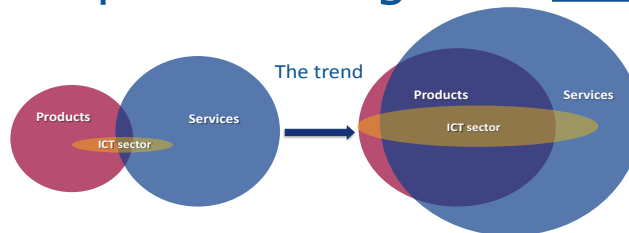
"Digital inside": Innovations in products (all types)



Digital transformations of processes



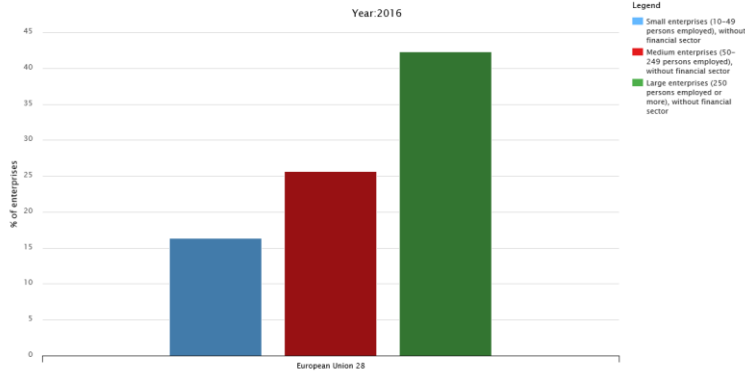
Radical/disruptive changes in business models



The barriers to digitisation: size of company, sector and region

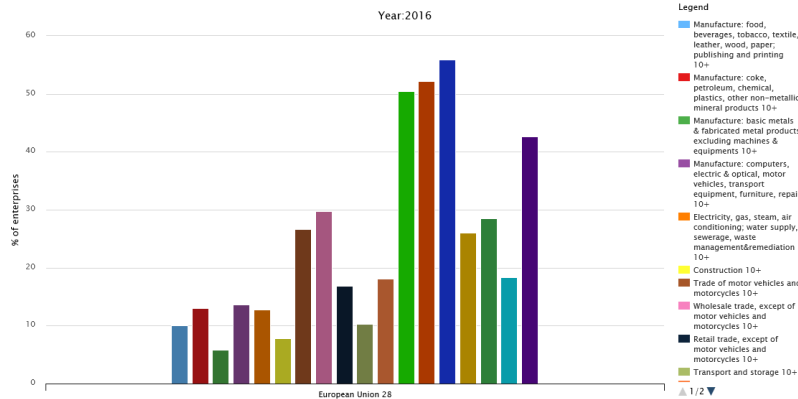
European

Enterprises with High levels of Digital Intensity, by Enterprise size (Small, Medium, Large)



42% of large companies is highly digitised in the EU vs 16% of SMEs

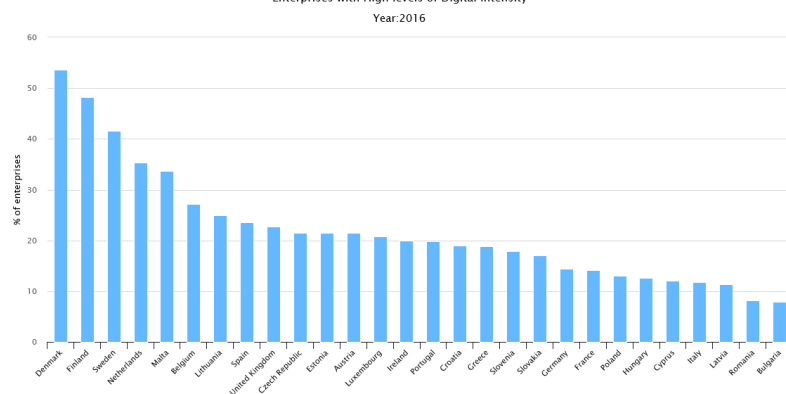
Enterprises with High levels of Digital Intensity, by Economic sectors (17 Nace groups)



56% of companies in computer programming, consultancy and information services are highly digitised.

Only around 6% of companies in basic metals & fabricated metal products excluding machines & equipments are highly digitised.

Enterprises with High levels of Digital Intensity



53% of Danish companies are highly digitised vs 8% in Bulgaria and Romania

What is a Digital Innovation Hub?

A one-stop-shop providing services to companies in the region through a multi-partner cooperation:

- Access to Specialist Expertise and Infrastructure
- Brokering/matchmaking
- Awareness Creation around Digital Technologies
- Innovation Scouting
- Digital Maturity Assessment.
- Visioning and Strategy Development for Businesses
- Mentoring
- Training
- Access to Funding and Investor Readiness Services



Digital Innovation Hubs: Towards organic Growth

"Ensure that every business in Europe, whatever its sector of activity, wherever located and whatever its size, can take full advantage of digital innovations and competences"

Member States & regions:
build-up/strengthening of
national and regional
structures of digital innovation
hubs

- particular attention to **SMEs**
- Ensure companies can **access** advanced technologies and enhance their **digital competences**
- **€100 million per year (EU)** of support to the hubs and **10 times more from the Member States and regions**



Commission:

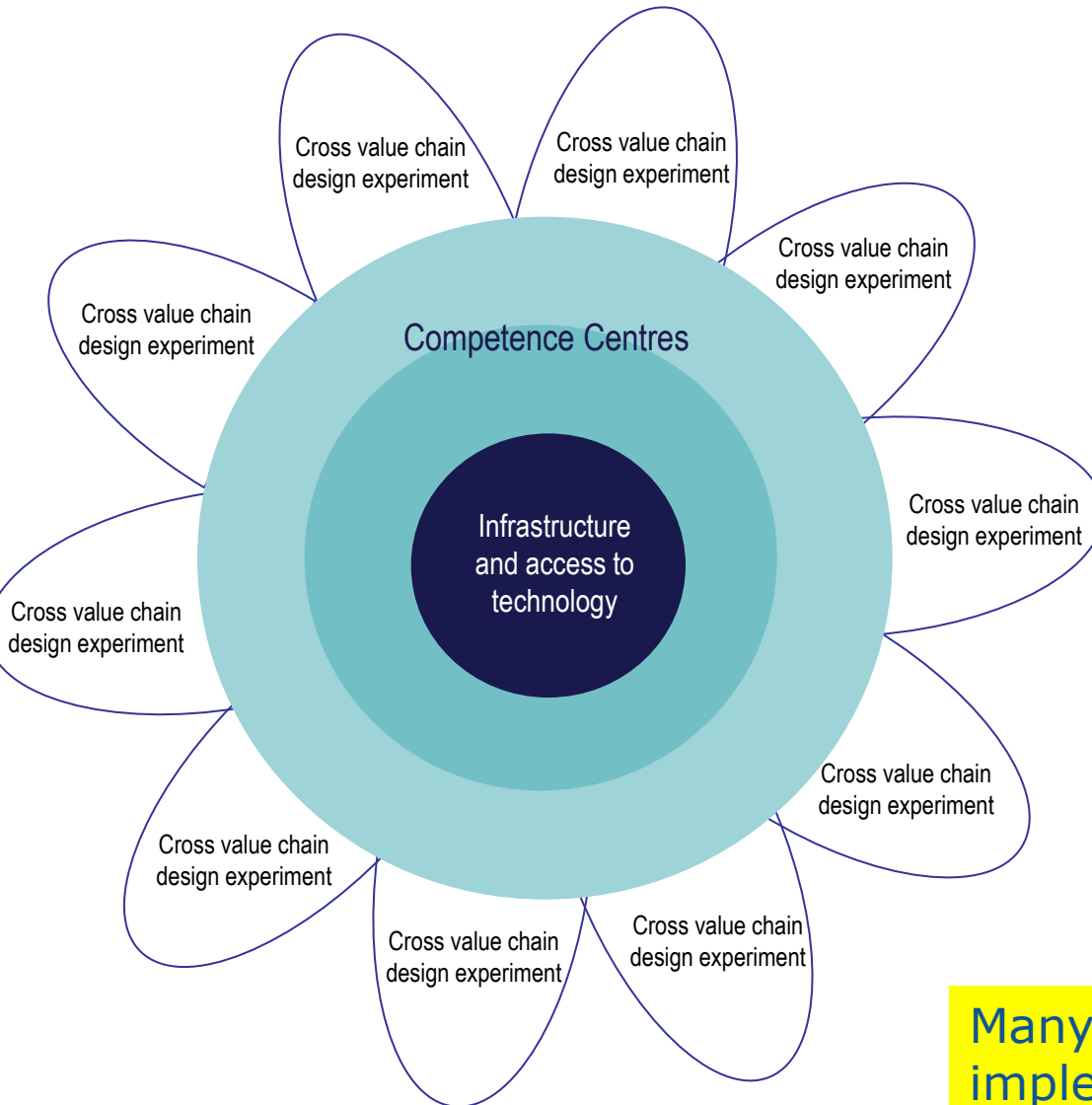
- Set up a pan-European network of Digital Innovation Hubs
- Support activities *such as cross-border experiments, catalogue and assistance in the creation of hubs*

- Focus area "Digitising and transforming European industry and services" calls for digital innovation hubs (for 300 M€)

Innovation actions with the following characteristics:

- Consortia should be deeply rooted in regional/national DIH
- Critical mass of highly innovative, cross border experiments. At least 50% of the budget should directly benefit SMEs or slightly bigger companies.
- Activities should aim at long-term sustainability and include a business plan for the digital innovation hubs, a plan to attract investors, to address training and skills development needs and dissemination. Established networks reaching out to SMEs like the Enterprise Europe Network and the NCP network should be used.
- Selected projects are expected to collaborate on building a network of Digital Innovation Hubs, covering most regions in Europe.

Critical Mass of Cross-Border Application Experiments



Develop novel products or services with digital technologies.

Bring together actors along value chain.

Suppliers to assist new users in customising and applying digital technologies in their environment.

Financial support to third parties may be used for flexibility

Many projects are using FSTP to implement open calls in H2020

Stimulate the development of the next wave of products with digital technologies inside



48 M€

A network of Digital Innovation Hubs in the following 4 areas:

- Area 1: Cyber-physical and embedded systems
- Area 2: Customised low energy computing powering CPS and the IoT
- Area 3: Flexible and Wearable Electronics
- Area 4: Widening Digital Innovation Hubs

Innovation Actions up to 8 million €.

www.smartanythingeverywhere.eu



SmartAnythingEverywhere



European Photonics Innovation Ecosystem

Upcoming elements in the Photonics PPP

2017 Innovation Incubator for SMEs

- Reinforce competitiveness of SMEs
- Provide access to services and capabilities
- First use and early adaptors
- Wider deployment of photonics in innovative products
- Driven by business needs of SMEs, flexible and fast

2018 Manufacturing Pilot Lines

- Providing access to manufacturing of advanced photonics and related services.
- Targeting a wider range of industrial players, in particular SMEs
- Low barrier access, low and medium production volumes.
- Aiming for future high volume production at competitive cost
- InP
- SILICON PHOTONICS

2019 Manufacturing Pilot Lines

- FREE FORM OPTICS
- PHOTONICS DEVICES FOR MEDICAL DIAGNOSTICS

2020 Digital Innovation Hubs

- Additive Manufacturing (metal based)
- Laser based equipment in advanced manufacturing
- Photonics Innovation Hub

Preparing Innovation Hubs
In Photonics,
Including Open Calls



Facilitate and accelerate a broad uptake and integration of robotic technologies

64 M€

A network of Digital Innovation Hubs in the following 4 areas:

- Healthcare
- Infrastructure Inspection and Maintenance
- Agri-Food
- Agile Production

Innovation Actions up to 16 million €.



DT-RUR-12-2018: ICT Innovation agriculture – Digital Innovation Hubs for Agriculture

20M€

- To accelerate the adoption of ICT-based solutions for more productive and sustainable agriculture systems.

Innovation Action up to 10M €



Topic published under the Societal Challenge 2 Work Programme "Food Security, sustainable agriculture and forestry, marine, maritime and inland water research and the bio economy".

- **DT-ICT-03-2020: I4MS (phase 4) - uptake of digital game changers and digital manufacturing platforms**
- **DT-ICT-04-2020: Photonics Innovation Hubs**
- **DT-ICT-05-2020: Big Data Innovation Hubs**



DT-ICT-01-2019: Smart Anything Everywhere

- **CSA to support SAE network – 1 M€**

DT-ICT-02-2018: Robotics - Digital Innovation Hubs

- **CSA to support Robotics DIH network – 2 M€**

DT-ICT-06-2018: Coordination and Support Activities for Digital Innovation Hub network

- **CSA to network all DIHs – 1 M€**



European
Commission

Upcoming open calls already existing DIH projects (using FSTP)

Project	Technology Area	Call 1	Call 2	Call 3	Call 4
I4MS (Innovation for Manufacturing SMEs) Initiative					
HORSE	Robotics	Nov.17	-	-	-
ReconCell	Robotics	Nov.17	-	-	-
L4MS	Logistics for Manufacturing	Sep.18	Sep.19	-	-
CloudiFacturing	HPC cloud-based simulation services	Jul.18	Jul.19	-	-
MIDIH	CPS/IoT for Manufacturing	Mar.18	Mar.19	-	-
AMABLE	Additive Manufacturing	Mar.18	Mar.19	Mar.20	-
SAE (Smart Anything Everywhere) Initiative					
FED4SAE	Cyber-Physical and Embedded Systems	Nov.17	May18	Nov.18	-
TETRAMAX	Low energy computing powering CPS and IoT	Nov.17	Oct.18	Sep.19	Apr.20
• Bilateral					
• Value chain/ interdisciplinary			Feb.18	Dec.18	Oct.19
• Entrepreneurial		Aug.18	Aug.19	Aug.20	-
DIATOMIC	Organic and large area electronics	Mar.18	Sep.18	-	-
SMARTEES	Smart System Integration	Dec.17	Nov.18	-	-
Other projects					
Data Pitch	Data brokerage between public sector organisations and SMEs	Jul.17–end of Sep.17	Autumn 18	-	-

- [ICT Proposers' Day 2017](#)
 - **Budapest, 9-10 Nov 2017**

- Working group on Digital Innovation Hubs

Report:

<https://ec.europa.eu/futurium/en/content/report-wg1-digital-innovation-hubs-mainstreaming-digital-innovation-across-all-sectors-final>

- Catalogue of Digital Innovation Hubs

<https://ec.europa.eu/futurium/en/content/digital-innovation-hubs-catalogue-project-0>