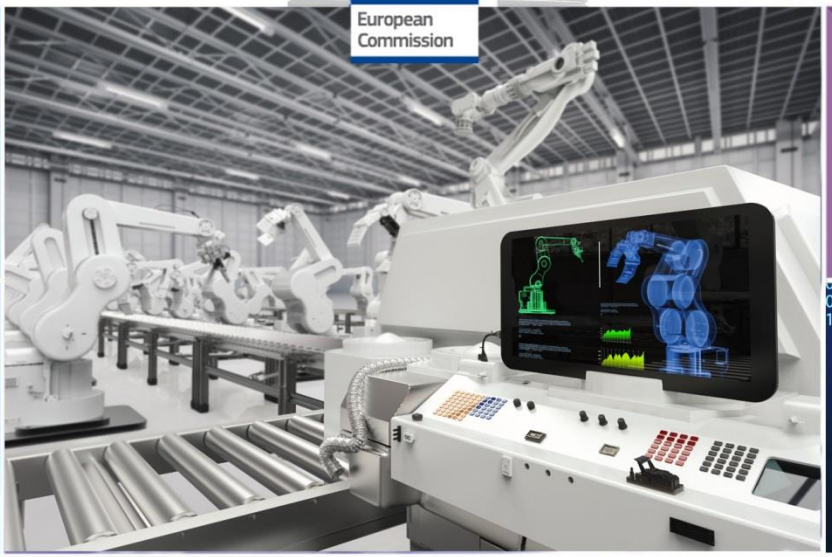
#DigitiseEU



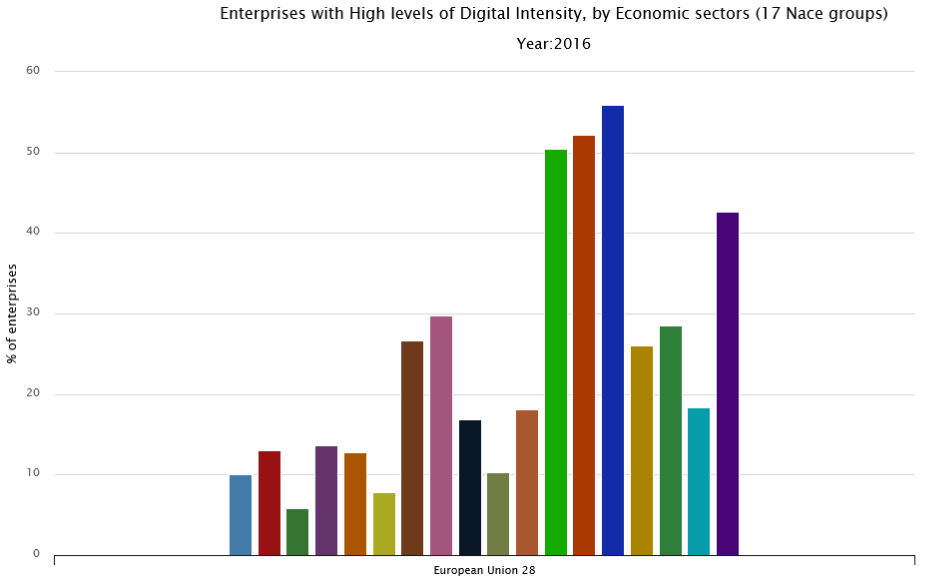
Digitising European Industry / Digital Innovation Hubs/Digital platforms

Philippe Vannson, HoU "**Photonics**"

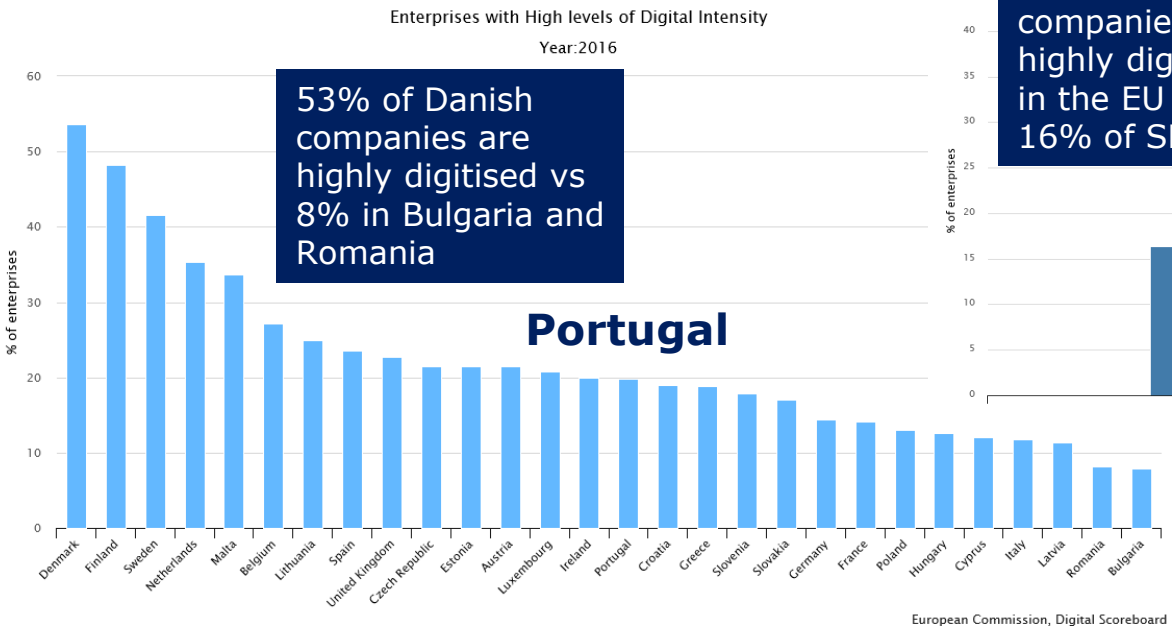
CONNECT/A4, European Commission

Paris, 15 December 2017

Level of digitisation differs according to size of company, sector and region

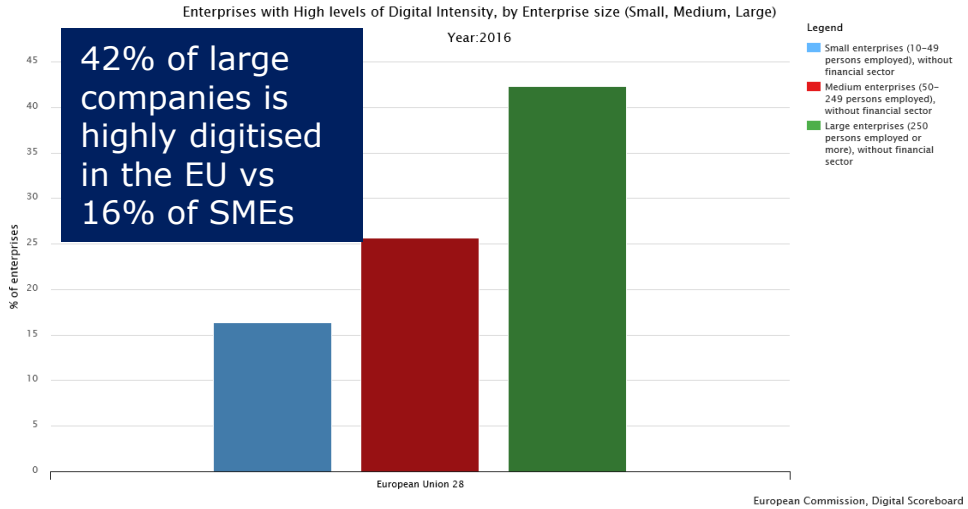


56% of companies in computer programming, consultancy and information services are highly digitised.
Only around 6% of companies in basic metals & fabricated metal products excluding machines & equipment are highly digitised.



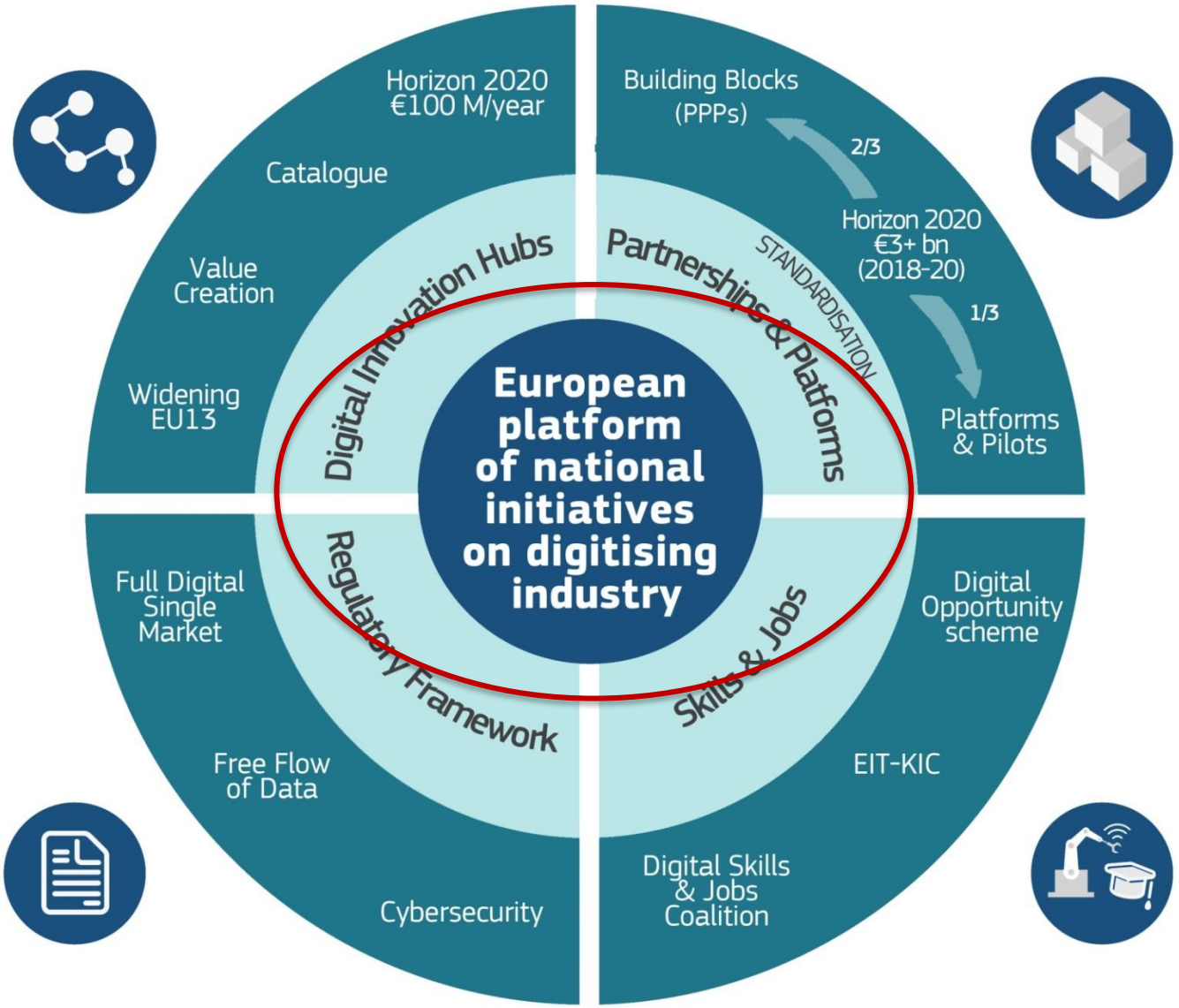
53% of Danish companies are highly digitised vs 8% in Bulgaria and Romania

Portugal



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

Digitising European Industry: The EU is delivering

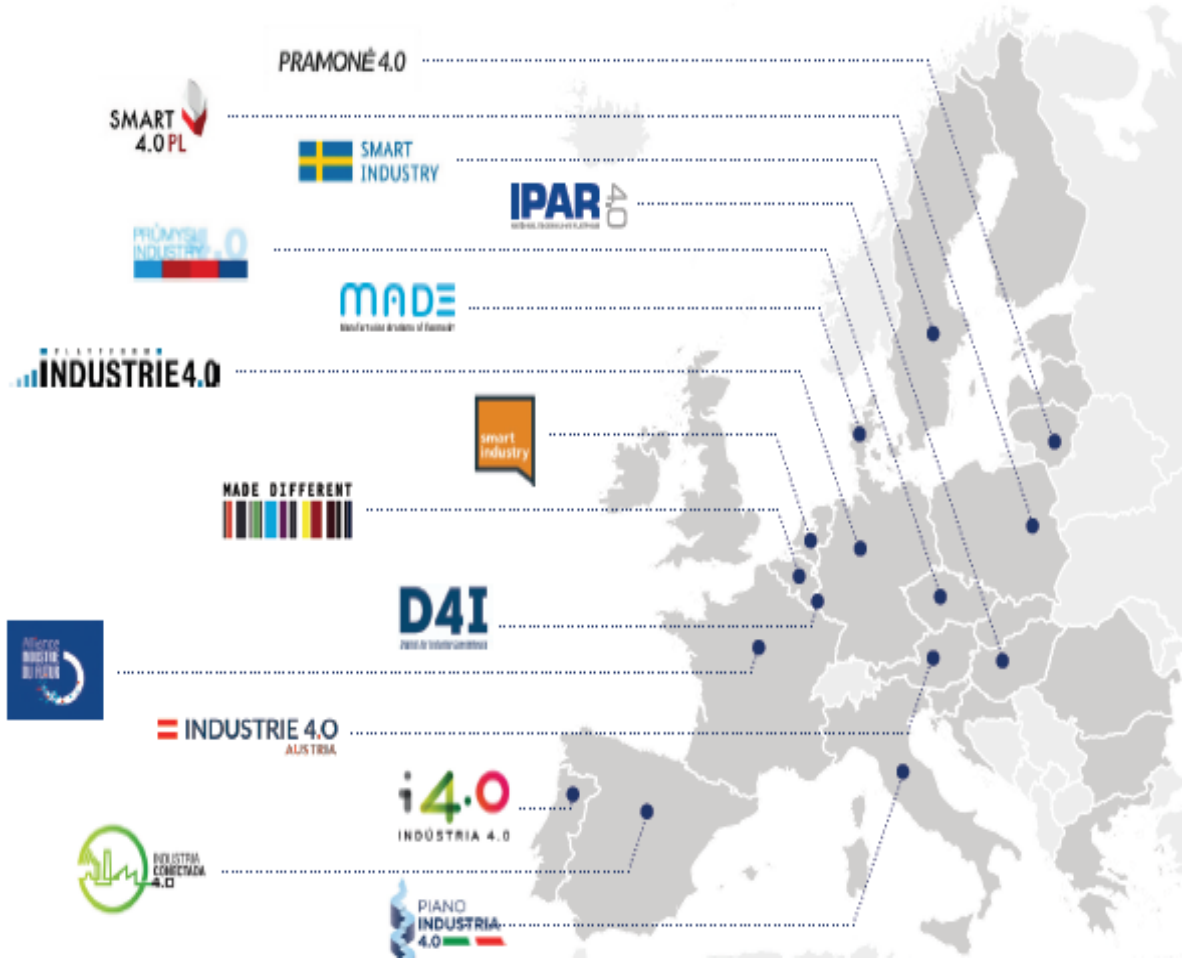


European platform of National Initiatives on Digitising Industry *(Rome, June 2017)*

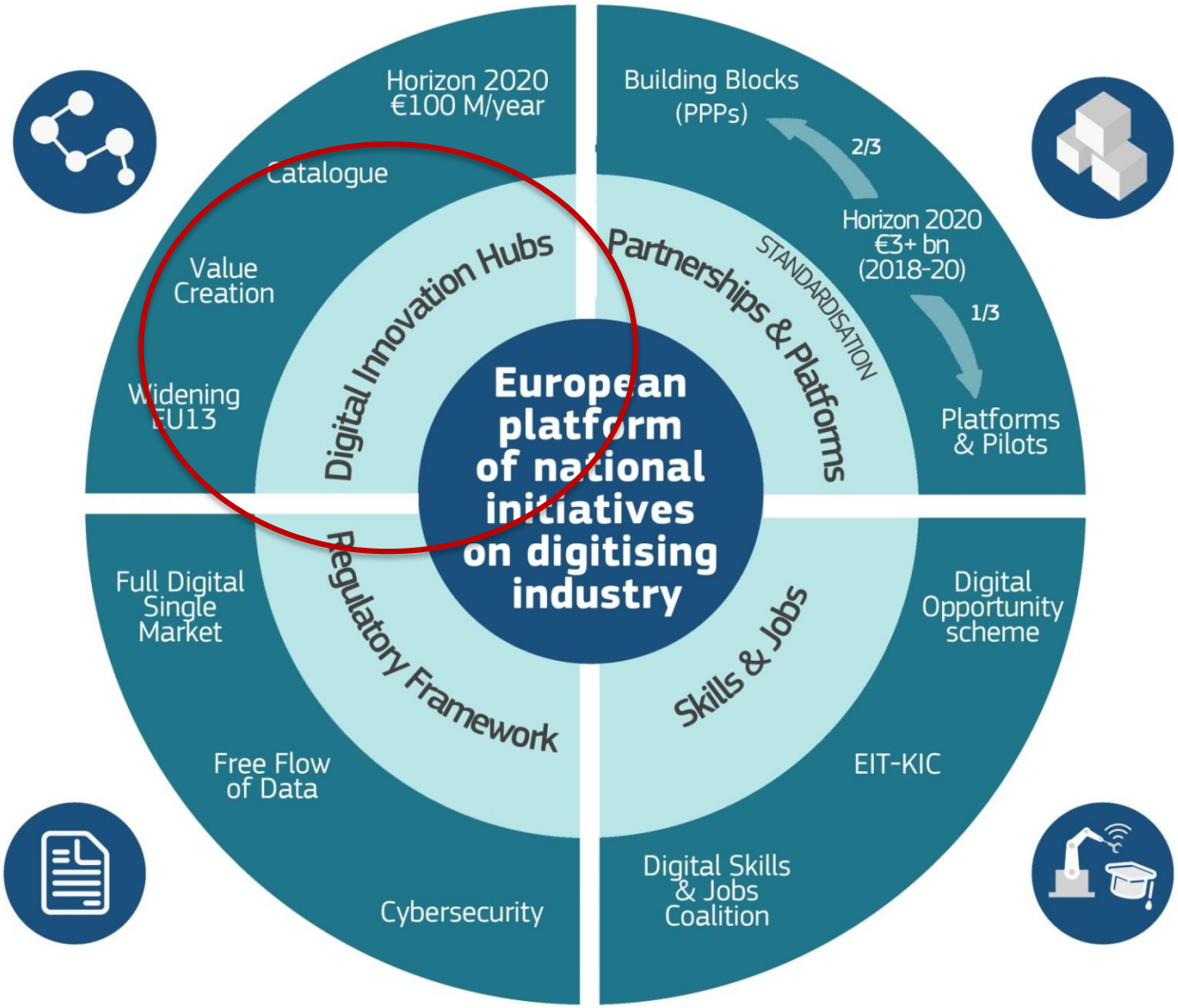
To reinforce the EU's competitiveness in digital technologies and to ensure that any industry in Europe – big or small, wherever situated, whatever sector – can fully benefit from digital innovations to upgrade its products, improve its processes and adapt its business models to the digital transition.

The platform: our added value at EU level

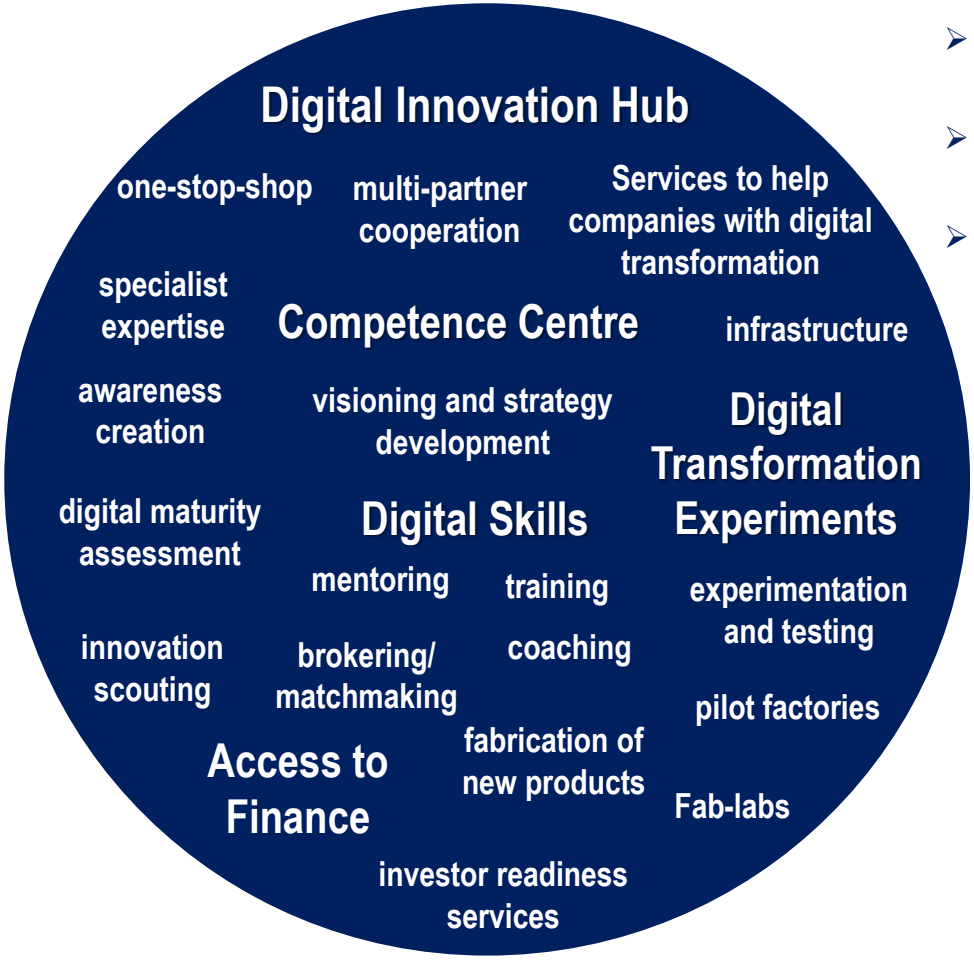
- Coherence, collective steer, co-ordination
- Monitoring actions at all levels: EU, MSs, regional and industrial
- Diffusion of Best Practices
- Pool investments



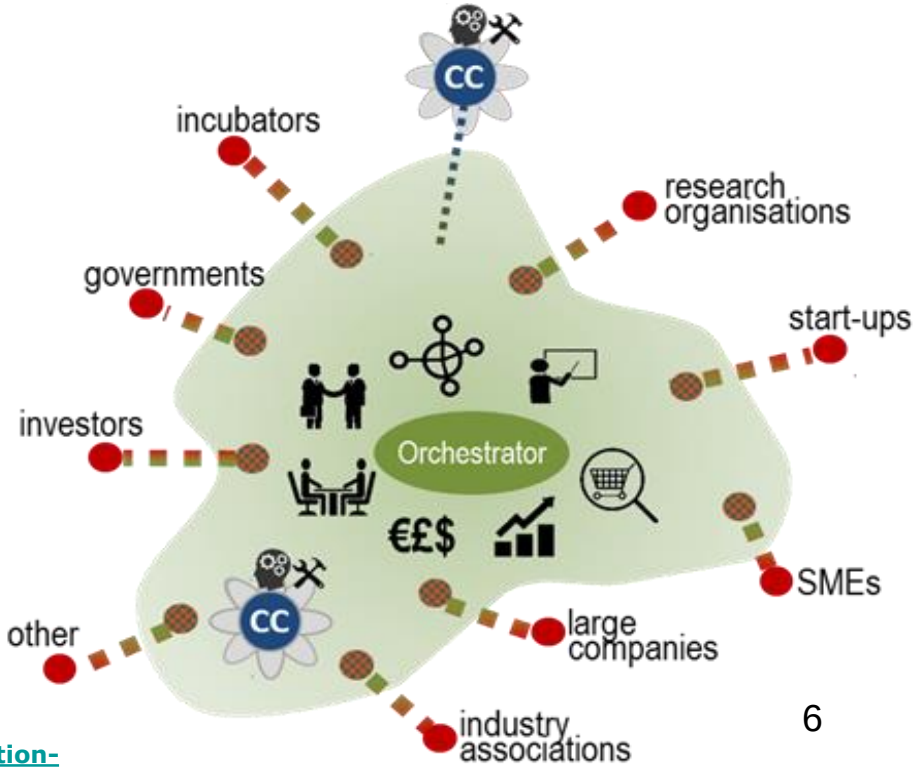
Digitising European Industry: Digital innovation Hubs



What is a Digital Innovation Hub?



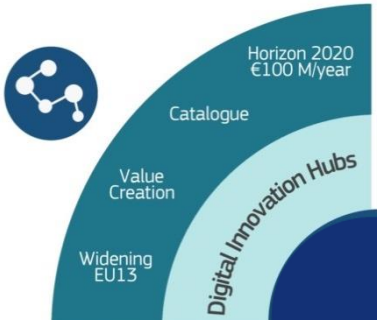
- Provide support to **existing industry** to manage their **digital transformation**
- **Competence Centres** are at the **core of DIHs (ecosystem approach)**
- **Variable geometries**: technology applications, sector, SME focus etc.
- Provides opportunities for both **ICT users** and **ICT suppliers**



Working Group report on DIHs:

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

Digital Innovation Hubs



I4MS

SAE
SmartAnythingEverywhere

Horizon 2020 Programme

Commission H2020 (100M€/yr):

- Networking and support activities
- Innovative Cross-border experiments

± 8M€ for widening the SAE and I4MS networks towards industrial regions which are so far underrepresented (WP18-20)

H2020 calls:
http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-dt-2018-2020.html
Overview of actions related to Digital Innovation Hubs
https://ec.europa.eu/digital-single-market/en/digital-innovation-hubs

FUTURE ICT FUNDING : WP 2018 – 2020

- Focus area "Digitising and transforming European industry and services" calls for digital innovation hubs (for 300 M€)
  - DT-ICT-01-2019: Smart Anything Everywhere (SAE) Initiative, with the "widening" part for industrial regions that are currently underrepresented in I4MS and SAE
  - DT-ICT-02-2018: Robotics – Digital Innovation Hubs, with a focus on maintenance and inspection robotics
  - To be decided for 2020: I4MS (phase 4) - uptake of digital game changers and digital manufacturing platforms ? Photonics Innovation Hubs ? Big Data Innovation Hubs ?
- In SC2: DT-RUR-12-2018: ICT Innovation agriculture – Digital Innovation Hubs for Agriculture
- DT-ICT-06-2018: Coordination and Support Activities for Digital Innovation

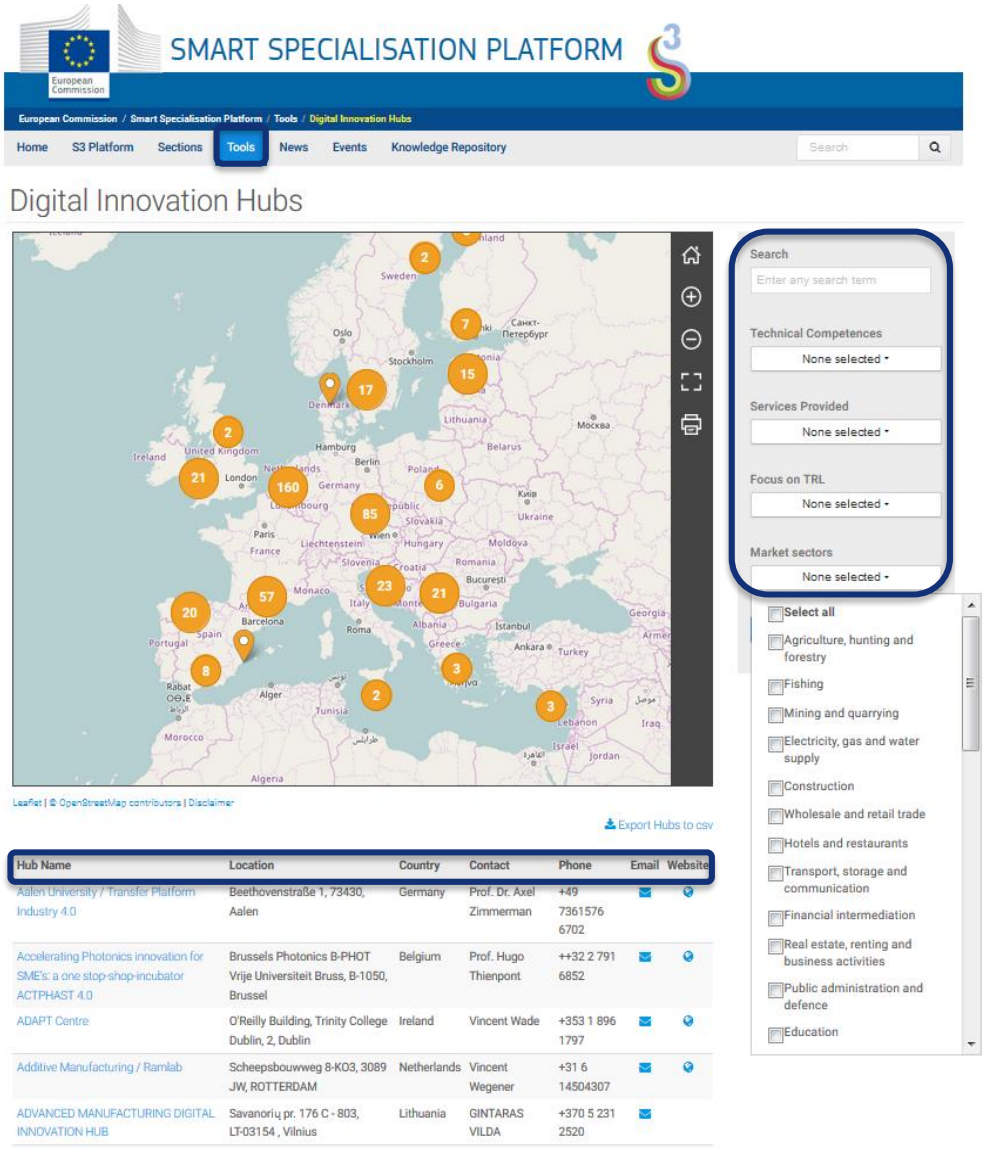
Digital Innovation Hubs Catalogue

First version available:

- Fact-sheets with profile, contact data, service examples for regional, national, and EU-supported DIHs
- Map-based search tool by technical competences, market sector, services

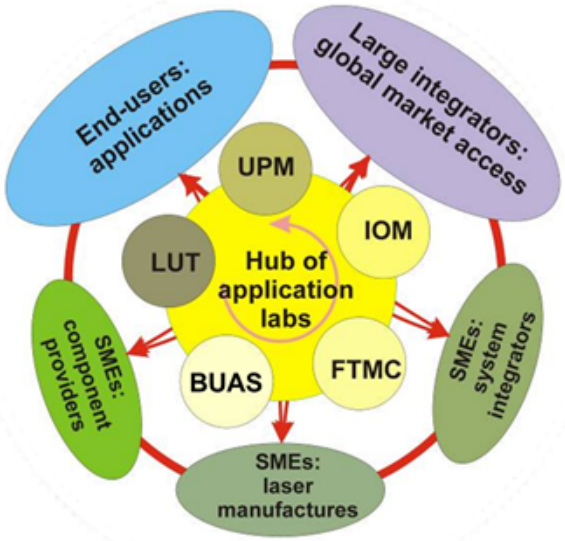
http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool

JRC-B3-DIH@ec.europa.eu



APOLLO - Example in laser applications

APPOLO: idea and implementation



Hub of laser application laboratories

Core of the consortium - **laser application laboratories:**

- around Europe;
- connected to a virtual hub,

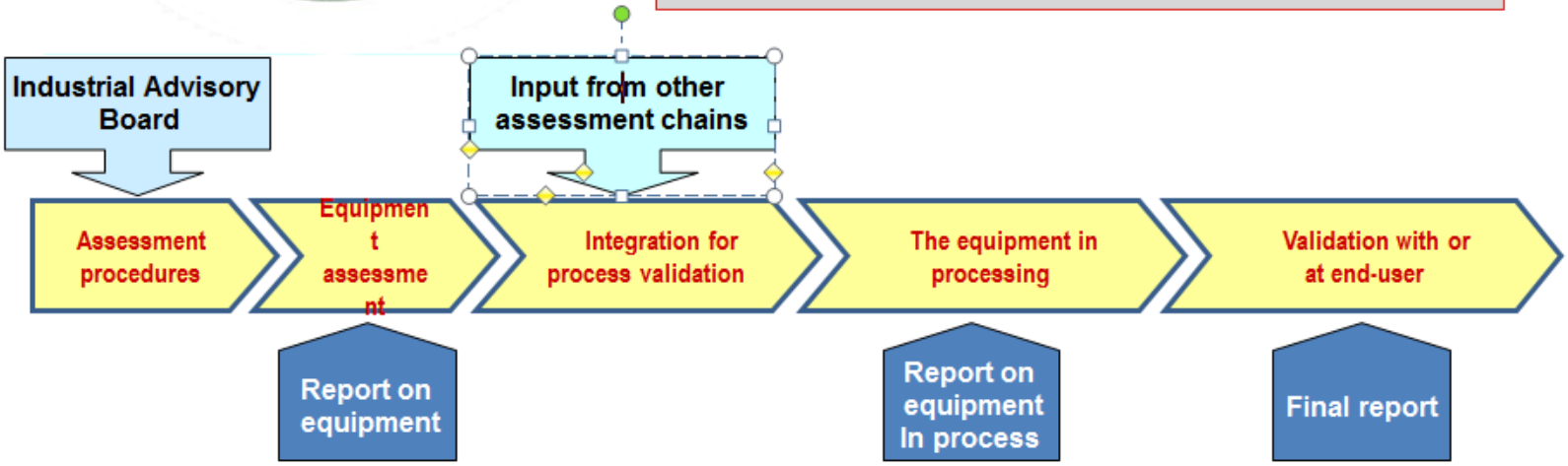
in order to

- accumulate knowledge and infrastructure
- promote the easy-to-access environment
- develop and validate of laser-based technologies

in

the 8+ equipment assessment value chains:

Funding: 11 M€



LASHARE - Example in laser applications

LASHARE Laser-based Equipment Assessment

28 assessment projects

Equipment Assessment Objectives

- Accelerate technological development
- Orient towards market needs
- Validate in real world scenario

Funding: 11.2 M€

Supplier Objectives

- Advance in Technology Readiness Level TRL 4,5 → 7,8
- Realise demand oriented and robust product

LASHARE Laser-based Equipment Assessment (LEA)

User Objectives

- Establish production criteria
- Secure the expected return on invest
- Foster European manufacturing

LASHARE Competence Center (for transfer from lab to industry)

- Share expensive equipment of LCCs
- Share eq. for testing and validation with other LCCs
- Offer scientific assistance across the LCCs

Reasons for success – Laser applications

APPOLO and LASHARE – Why are they successful?

- Laser-based equipment is targeted at a real world challenge through the user/supplier involvement
- Assessment teams are small, flexible and very active, fast decisions, fast results
- Confidentiality at assessment level ensures open communication about requirements and problems
- Shared resources at the Competence Center / Hub level ensure wide knowledge support and flexible backup
- Communication of results at project level enables huge visibility for individual assessments
- Potentially a "quality label" for the participants

real world challenge

Small team

Fast results

confidentiality

shared knowledge

shared resources

huge visibility

Quality label

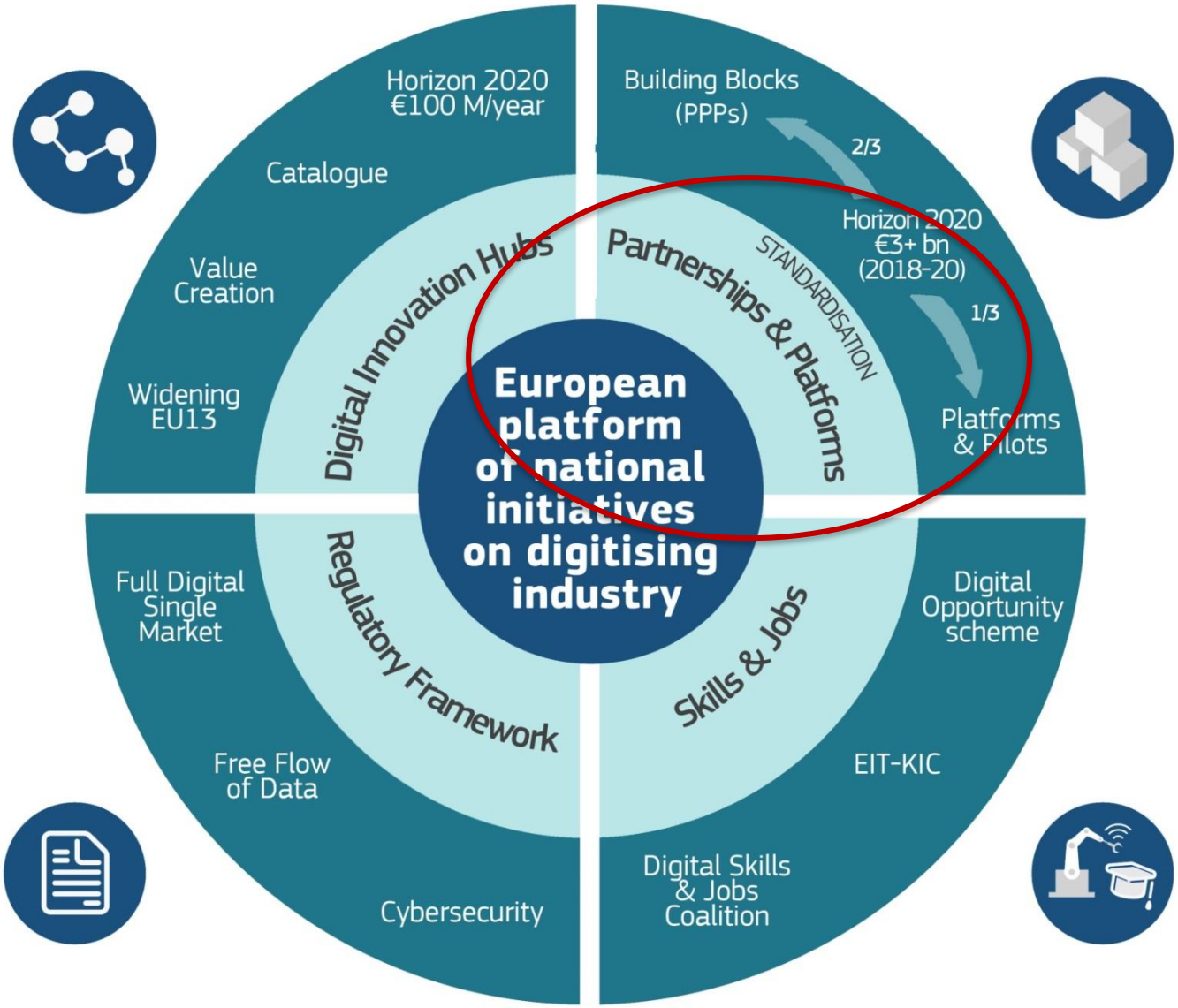
ACTPHAST – Example of innovation support to European companies

- ✓ Funding: 8 M€ - 23 research institutes
- ✓ 93 innovation projects launched
- ✓ 91% for SMEs
- ✓ 720 new jobs created
- ✓ 75 M€ raised from VC

What to add to make ACTPHAST an innovation hub?

- To grow in a durable way ACTPHAST needs to team up with the European regions so that regional efforts and regional funding can be aligned with ACTPHAST's efforts on a European scale
- Most SME's lack the skills to devise good business plans. ACTPHAST will include a support instrument to mitigate this shortcoming.
- SME's need access to fresh capital to develop and commercialize their new photonics-enhanced products. ACTPHAST will grow the European Photonic Venture Forum in Brussels with satellite meetings in the European regions to team up companies and investors.
- ACTPHAST could include the photonics pilot lines as new complementary technology platforms to its already existing technology platforms and facilitate access to SME's

Digitising European Industry: Partnerships & Platforms



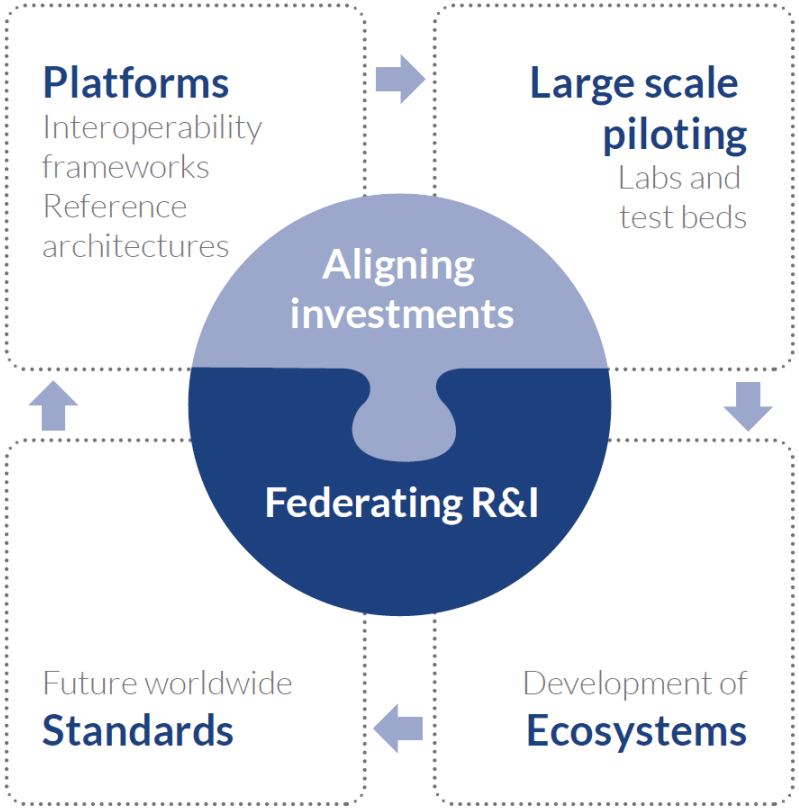
Digital Industrial Platforms

Alignment of R&I efforts

EU actors join forces along common interests
Future global standards & platforms driven by interests of EU actors

Focus investments on:

- Integration of key digital technologies
- Digital industrial platforms, reference architectures, …
- Reference implementations, large-scale piloting, experimentation environment
- Ecosystem building and standardisation



WP 2018-2020
Platforms and Piloting

European Commission

DT-ICT-07-2018-2019:
Digital Manufacturing Platforms

- **2018: Agile Value Networks: Lot-size One**
- **2018: Zero-defect Processes and Products**
- **2019: Machines & Human Competences**
- **2019: Sustainable Value Networks**

2018: 48 M€
2019: 47 M€

DT-ICT-08-2019:
Agricultural Digital Integration Platforms
30 M€

DT-ICT-09-2020:
Digital Service Platforms for Rural Economies
30 M€

DT-ICT-12-2020:
Smart Hospital of the Future
25 M€

DT-TDS-01-2019:
Smart and Healthy Living at Home
60 M€

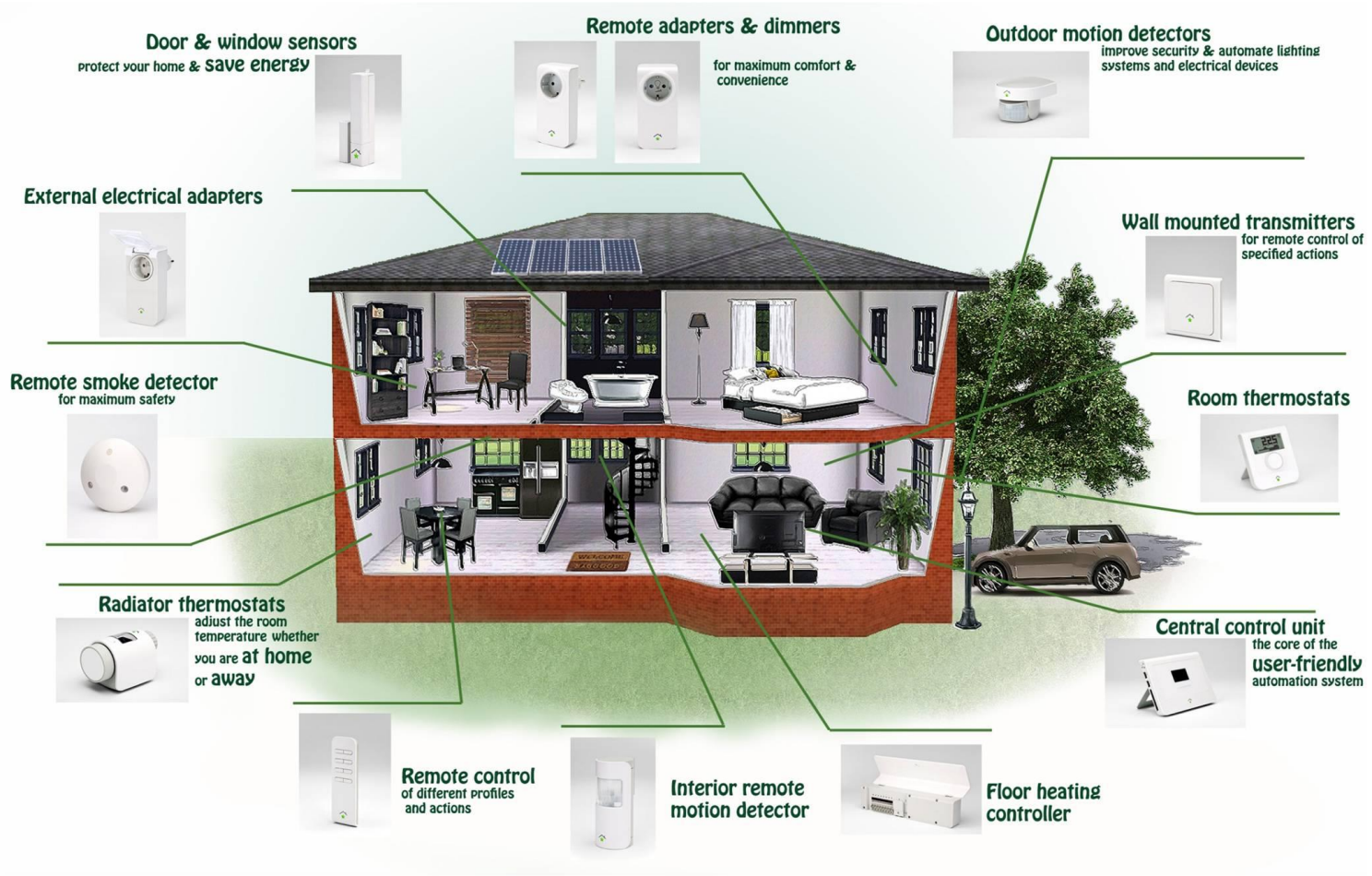
DT-ICT-10-2018-2019:
Interoperable and Smart Homes and Grids
30 M€

DT-ICT-11-2019:
Big Data Solutions for Energy
30 M€

Cross-cutting issues, IoT, Big Data, Security…

DT-ICT-13-2019: Digital Platforms/Pilots Horizontal Activities, 4 M€
Including Preparation of a digital industrial platform for the construction sector, 1 M€

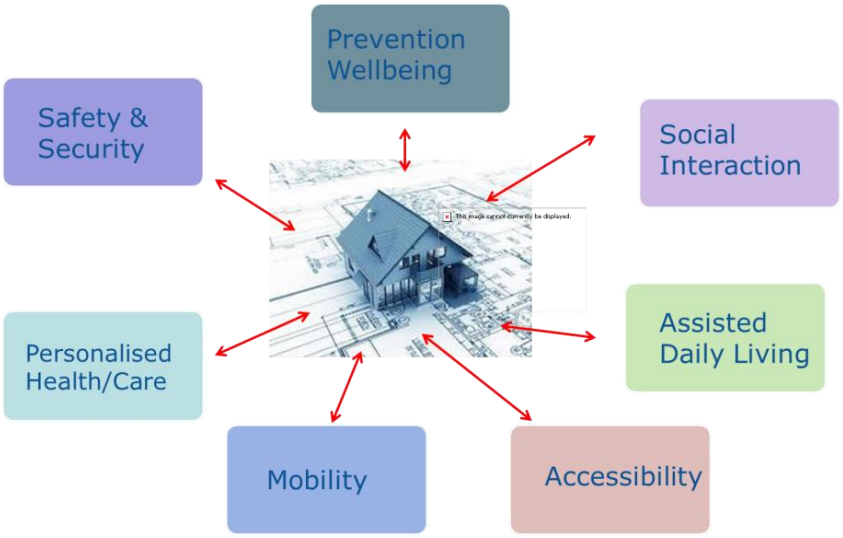
Smart and Connected Homes



Smart and Connected Homes

*Goal: enable **independent living and remote health monitoring** to the growing ageing population. Include upgrading existing ICT infrastructure to support digital services for independent living and connected care including telehealth and telecare, as well as solutions supporting health status and healthy lifestyle (e.g. sensor based physiological measurements, mHealth apps, telepresence, robotics supported living). Ideally, these ICT upgrades for independent living and health status management could be **combined with the needs related to energy-efficiency, security, and entertainment**.*

Smart and Connected Homes

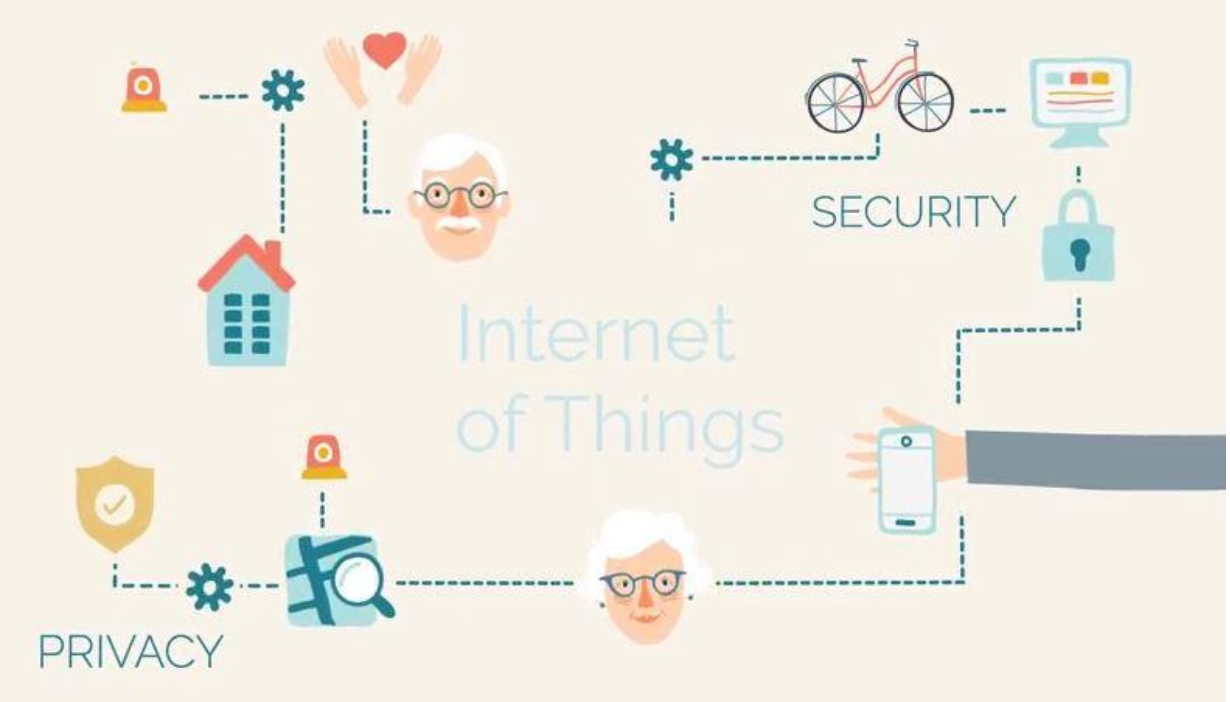


"Age-friendly homes" as one element of sustainable systems for integrated health and social care

The global market for ICT solutions for healthcare monitoring in private homes is expected to grow from nearly €10.7b in 2016 to roughly €31.5 by 2021

ACTIVAGE

Large-scale pilot: Interoperable and open IoT ecosystem enabling the deployment of IoT based services for Active and Healthy Ageing



Project video: https://www.youtube.com/watch?v=FkWxc7yFE3A

Digitizing European Industry (DEI) Conclusions

- ✓ It is all about coordination!
- ✓ European Platform of national initiatives coordinates
- ✓ Digital Innovation Hubs (DIHs), Partnerships & Platforms contribute to building vivid ecosystems
- ✓ and they contribute to DEI overall objective of ensuring *that any industry in Europe – big or small-, wherever situated, whatever sector – can fully benefit from digital innovations to upgrade its products, improve its processes and adapt its business model to the digital transition*.

European Commission

Thank you for your attention!

Contacts

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Follow the latest progress and get involved

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@DSMeu

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bit.ly/futuriumdei