Internet of Things
EU strategy and funding opportunities

Peter Wintlev-Jensen
Internet of Things
DG Communications Networks, Content and Technology
European Commission

HORIZON 2020

What is this about?

Measures that enable all sectors to benefit from digital innovation:

- For higher value products with "digital inside"
- Increased efficiency of processes
- Adapted and reshaped business models including relevant services

These measures benefit from:

- A true Digital Single Market
- World class broadband, cloud and data infrastructures
- Access to sources of financing

Coordination of various initiatives - MS, regional, EU

- Pool resources, avoid fragmentation and support DSM

#DigitiseEU

"Europe will only be able to maintain its leading role if the digitisation of its industry is successful and reached fast."

Günther H. Oettinger
@GOettingerEU

Digital Single Market

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

Internet of Things - 3 pillars

1) **<u>Single market for IoT:</u>**
IoT devices and services should be able to connect seamlessly and on a plug-and-play basis anywhere in the European Union

2) **<u>Thriving IoT ecosystem:</u>**
Open platforms used across vertical silos will help developer communities to innovate. As a kick-start, IoT deployments in selected lead markets supported

3) **<u>Human-centred IoT:</u>**
Respect of European values, empowering people along with machines and businesses, high standards for protection of personal data and security

https://ec.europa.eu/digital-single-market/en/internet-of-things

Bridging Innovation and Policy actions

Better framework for consumers and businesses

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- **Free Flow of Data**
- **Implementation of GDPR**
- **Liability**
  https://ec.europa.eu/digital-single-market/en/news/european-commission-staff-working-document-liability-emerging-digital-technologies

Advanced digital networks and innovative services

- Telecoms infrastructure/services
- Media services
- Platforms and intermediaries
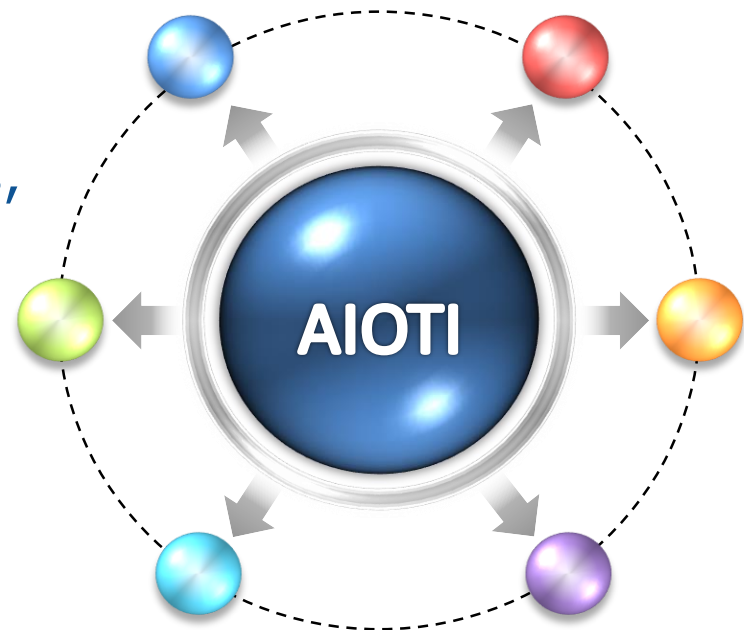- **Trust and security**

  eg Network Information Security (NIS/ENISA)

Enhance the digital economy

- Data economy
- Inclusive digital economy and society
- **Developing sustainable Ecosystems**
- **Interoperability and standardisation**

o Support LSPs to connect to IoT innovation ecosystems across the value chain /across silos
  o e.g. role of connectivity

o Putting IoT on the map and link to PPPs, JTI, and national initiatives
  o ECSEL, BDVA PPP, PPP FoF

o Advancing IoT convergence across verticals for standardisation/interoperability

o Discussing with industry to provide guidance for IoT in the DSM policy
  o Role of certification / GDPR implementation

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Strategy for IoT Leadership

2014-15 Building the IoT- EPI cluster (**E**uropean **P**latforms **I**nitiative)

2016-17 Building the IoT **F**ocus **A**rea

2016-17 Security and Privacy in IoT

2018-20 FA DEI Strategy

EU Markets

EPI: Building the eco-system, breaking silos CPS-IoT, Using architectures integrating devices, systems and networks for a multiplicity of novel applications

http://iot-epi.eu

LSPs: Focus Area on Internet of Things will focus on experimentation with real-life solutions being tested at large scale with users

+ ODI, FI-ware accelerators, IERC, standardisation etc.

https://european-iot-pilots.eu/projects/

Security and Privacy in IoT:
Addressing security, trust and privacy in IoT platforms, services and applications

A particular emphasis is on Blockchain and Distributed Ledger tecthnology as an enabler

DEI Platforms: Focus Area Digitising European Industry will focus on integrating digital innovation across societal challenges
+ DEI Policy support, e.g. security, privacy, ownership, liability, GDPR .

55 Mill €

100 Mill €

37 Mill €

300 Mill €

6

European Commission

Digital Manufacturing Platforms

- Agile Value Networks: Lot-size One

- Zero-defect Processes and Products

- Machines & Human Competences

- Sustainable Value Networks

A digital 'plug and produce' online equipment platform for manufacturing

...

Agricultural Digital Integration Platforms

- Optimize farm operations
- High-precision farming

Digital Service Platforms for Rural Economies

...

Smart Hospital of the Future

Smart and Healthy Living at Home

- Healthy & independent living

- Early risk detection and intervention

...

Interoperable and Smart Homes and Grids

Big Data Solutions for Energy

...

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

European Commission

Horizon Europe, with a budget of **€97.6 billion**, is the biggest ever research and innovation funding programme. It is designed around three pillars:

- the **Open Science pillar** supports researchers through fellowships and exchanges as well as funding to projects defined and driven by researchers themselves, through the European Research Council and the Marie-Skłodowska-Curie actions.

- The **Global challenges pillar** directly supports research relating to societal challenges, setting EU-wide missions with ambitious goals around issues that worry us daily such as such as the fight against cancer, clean mobility and plastic-free oceans. Industrial leadership will be prominent within this pillar and throughout the programme as a whole.

- The **Open Innovation pillar** aims to make Europe a front runner in market-creating innovation. A **European Innovation Council** will offer a one-stop shop for high potential and breakthrough technologies and innovative companies with potential for scaling up.
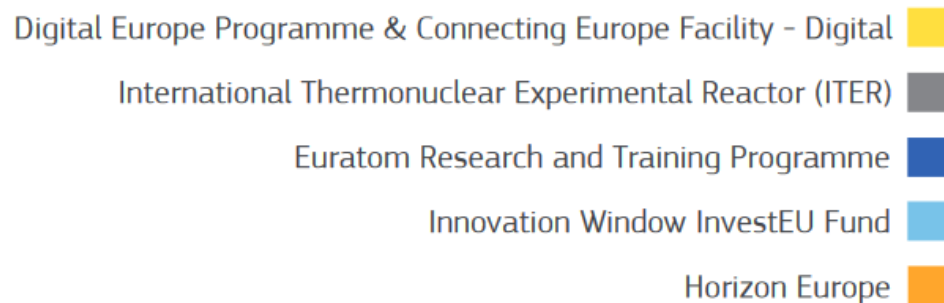
Open Science

Global challenges

Open Innovation

HORIZON EUROPE

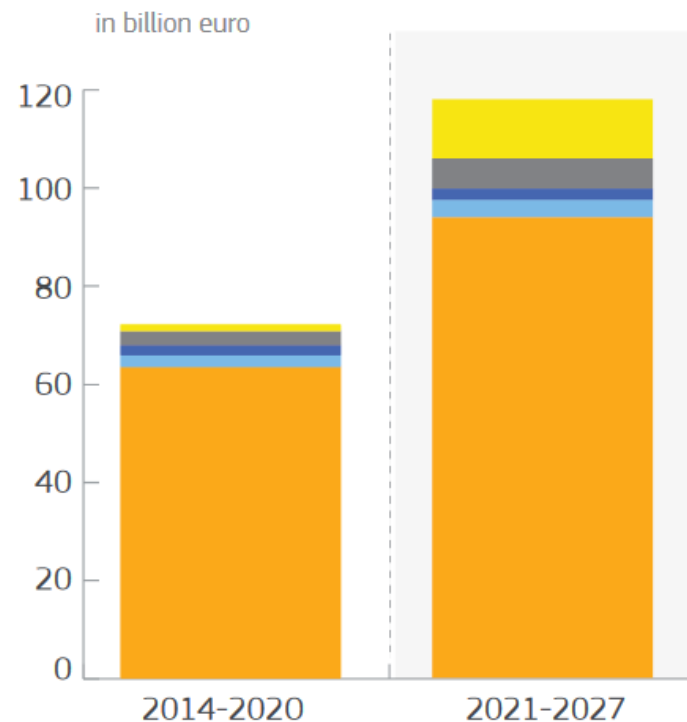https://ec.europa.eu/commission/sites/beta-political/files/budget-proposals-research-innovation-may-2018_en.pdf

European Commission

The Commission proposes to create a new **Digital Europe programme** with an overall budget of **€9.2 billion** to shape and support the digital transformation of Europe's society and economy.

The digital strand of the **Connecting Europe Facility** has a budget of **€3 billion** which will finance digital connectivity infrastructure.
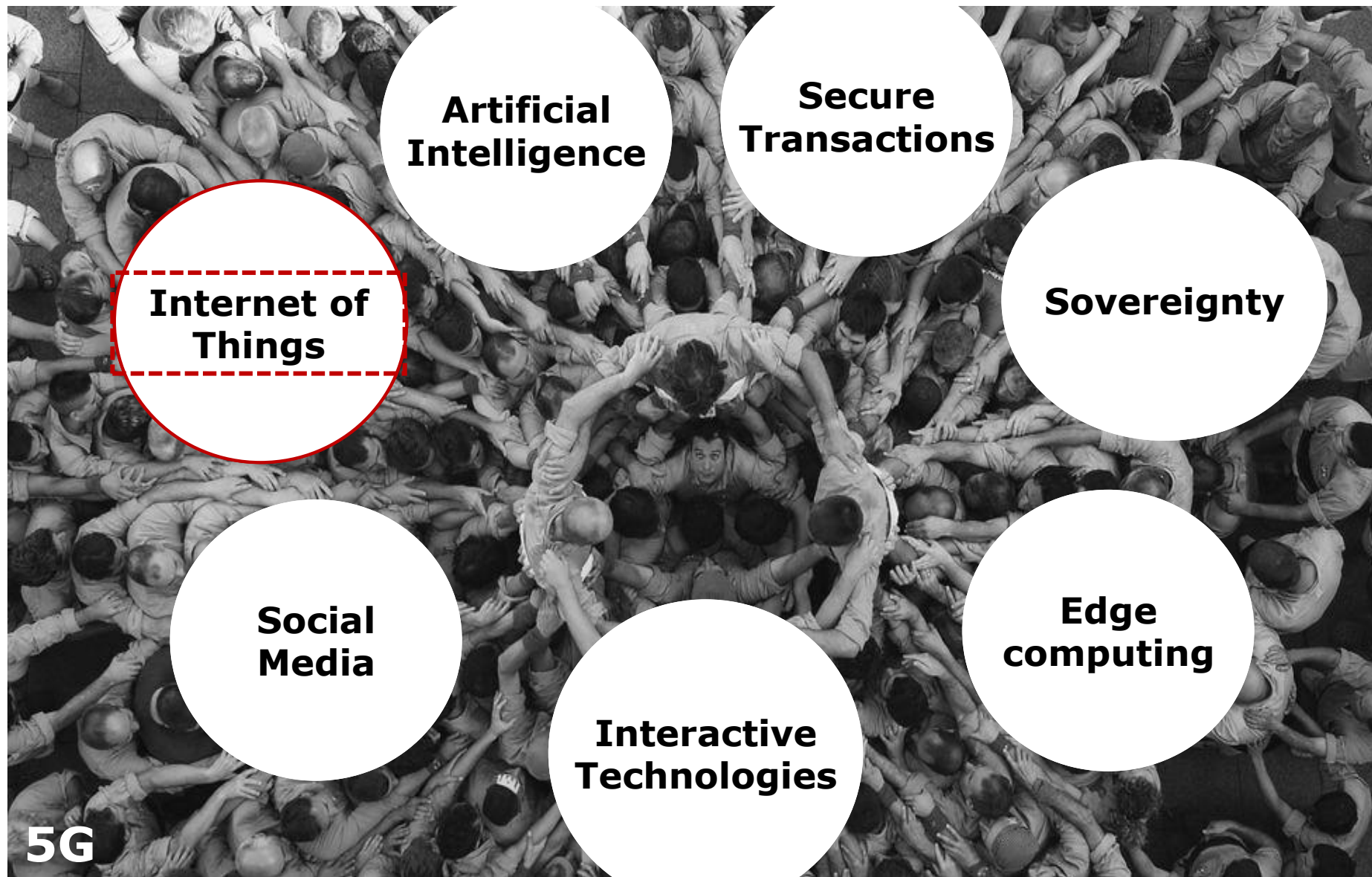
Digital Europe Programme & Connecting Europe Facility – Digital ▮ (yellow)

International Thermonuclear Experimental Reactor (ITER) ▮ (grey)

Euratom Research and Training Programme ▮ (dark blue)

Innovation Window InvestEU Fund ▮ (light blue)

Horizon Europe ▮ (orange)

Investing in the future

in billion euro

https://ec.europa.eu/commission/sites/beta-political/files/budget-proposals-digital-transformation-may2018_en.pdf

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Focus Area 'Digitising and transforming European industry and services', Platforms and Pilots

LEIT-ICT   *Budget*

- **DT-ICT-07-2018-2019: Digital Manufacturing Platforms for Connected Smart Factories**   **95 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-10-2018-2019: Interoperable and smart homes and grids** **30 M€**
- **DT-ICT-11-2019: Big data solutions for energy**   **30 M€**
- **DT-ICT-12-2020: The smart hospital of the future**   **25 M€**
- **DT-ICT-13-2019: Digital Platforms/Pilots Horizontal Activities**   **4 M€**

SC1

- **DT-TDS-01-2019: Smart and healthy living at home**   **60 M€**   H3/E4   H3

(LEIT-NMBP:

- **DT-NMBP-20-2018: A digital 'plug and produce' online equipment platform for manufacturing**   **20 M€)**

Thank you - useful links

- Digitising European Industry Strategy (DEI):
  https://ec.europa.eu/digital-single-market/en/digitising-european-industry

- The Alliance of Internet of Things Innovation
  http://www.AIOTI.eu

- Internet of Things in DAE:
  http://ec.europa.eu/digital-agenda/en/internet-things

- Horizon 2020 – The EU Framework Programme for research and Innovation:
  http://ec.europa.eu/research/horizon2020/index_en.cfm