

# **Industrial Internet of Things**

## **European Industrial Partnership For the Digital Age**



Rolf Riemenschneider

European Commission - DG CONNECT

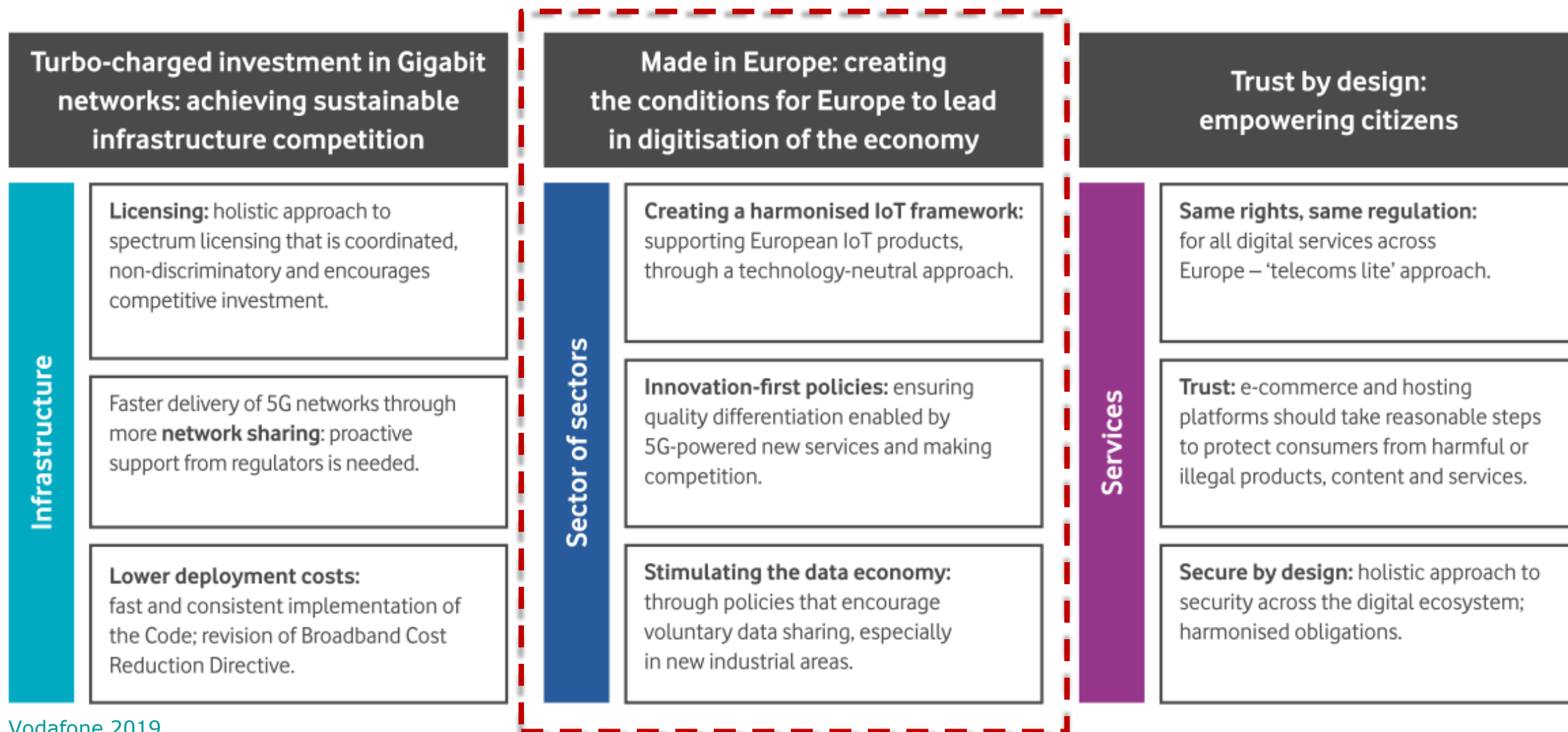
- **Commissioner Sylvie GOULARD for Single Market**

- Long-term strategy for Europe's industrial future.
  - Supported by **DG GROW** and **DG CONNECT**
- On enhancing **Europe's technological sovereignty**. investing in the next frontier of technologies,
  - blockchain, high-performance computing, algorithms, data-sharing, data-usage tools, 5G standards, ..
- to lead reflections on issues such as **Europe's technological sovereignty in key value chains**,
  - including in the defence and space sectors, common standards and future trends.

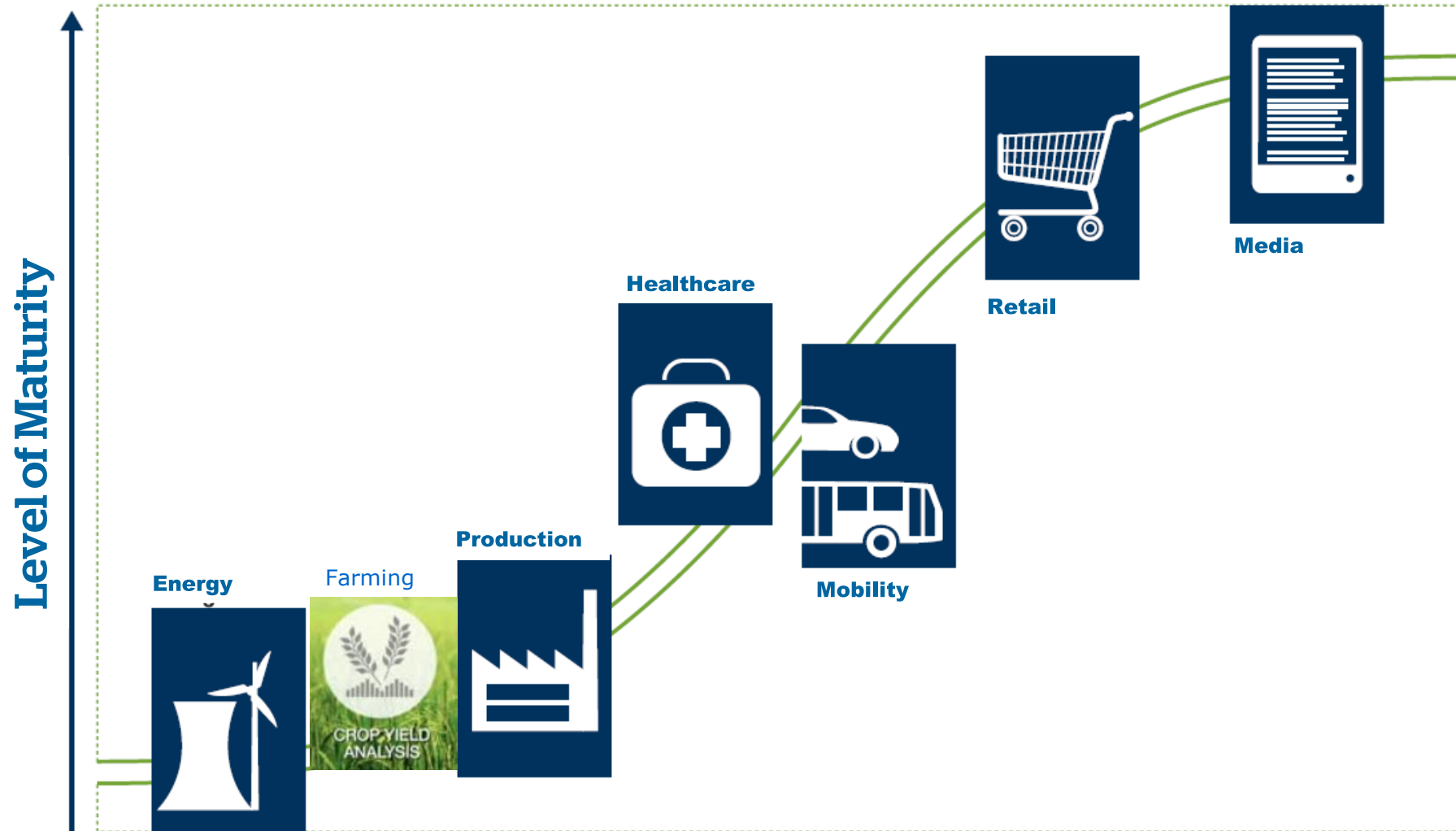


- → **This Workshop to trigger reflections on Strategic Value Chains on Industrial IoT across different Partnerships, industrial stakeholders and Associations**

- Vodafone: DIGITAL SINGLE MARKET 2.0**



# Digitization – Level of Maturity

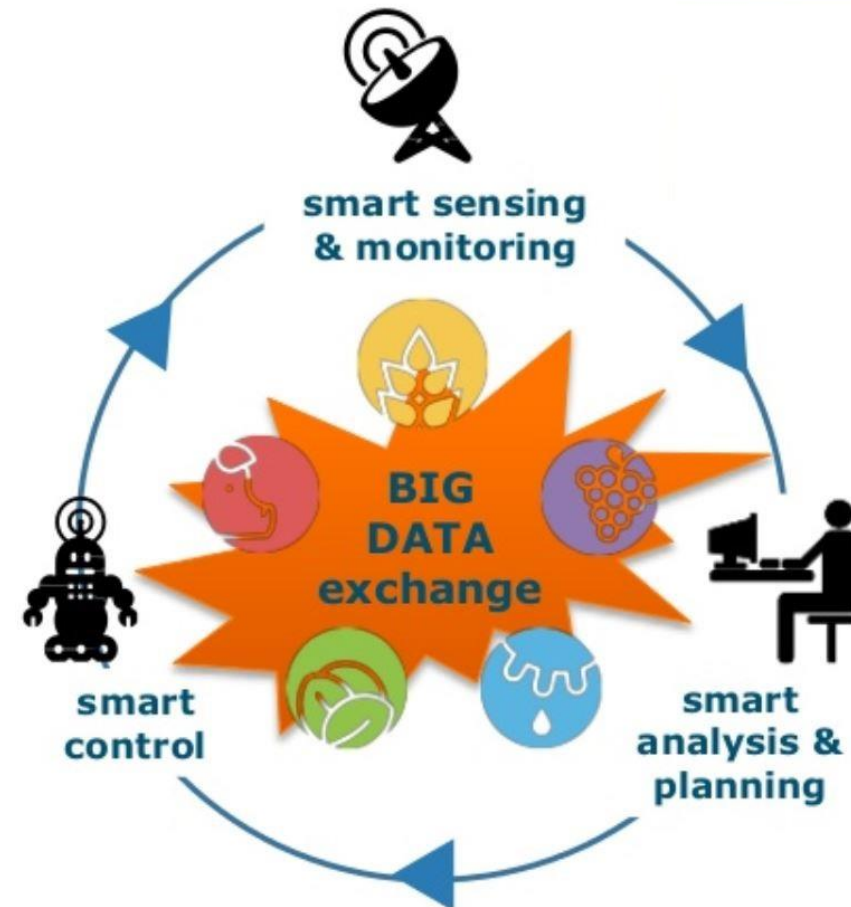
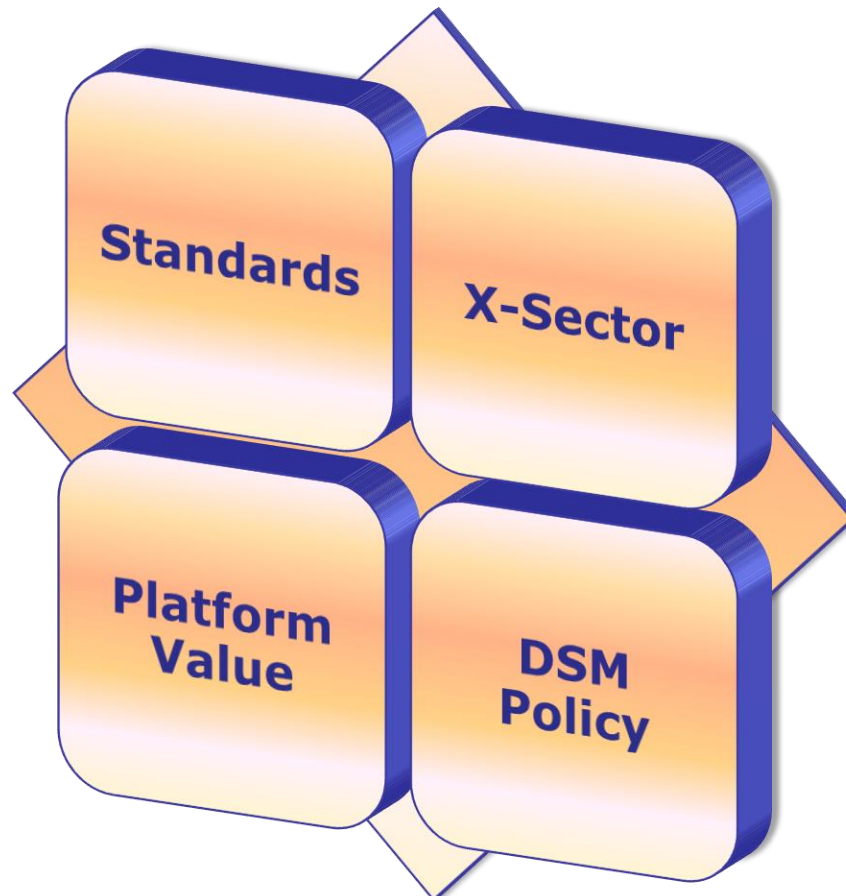


Source: Accenture

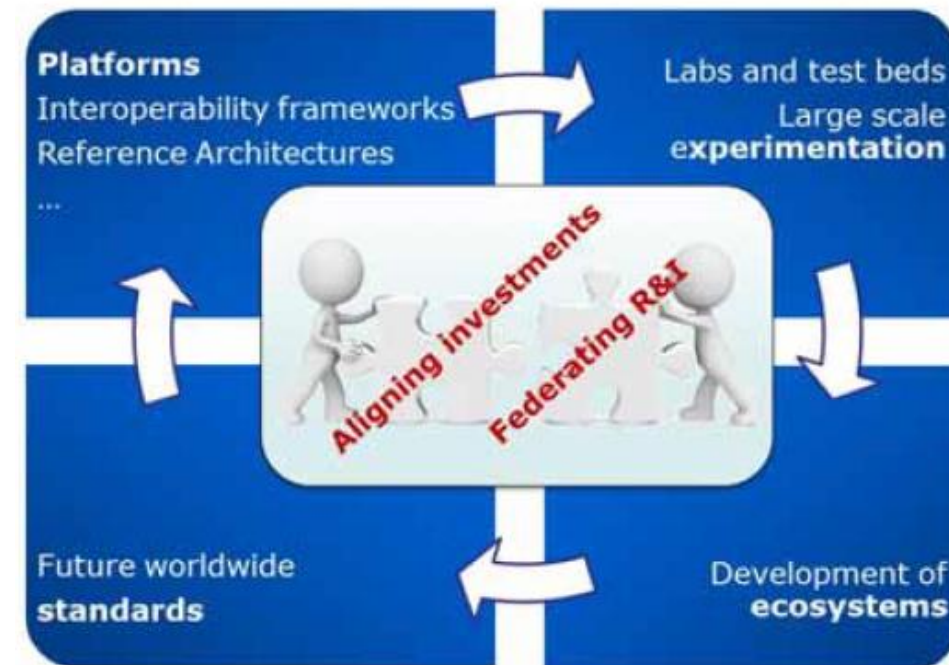
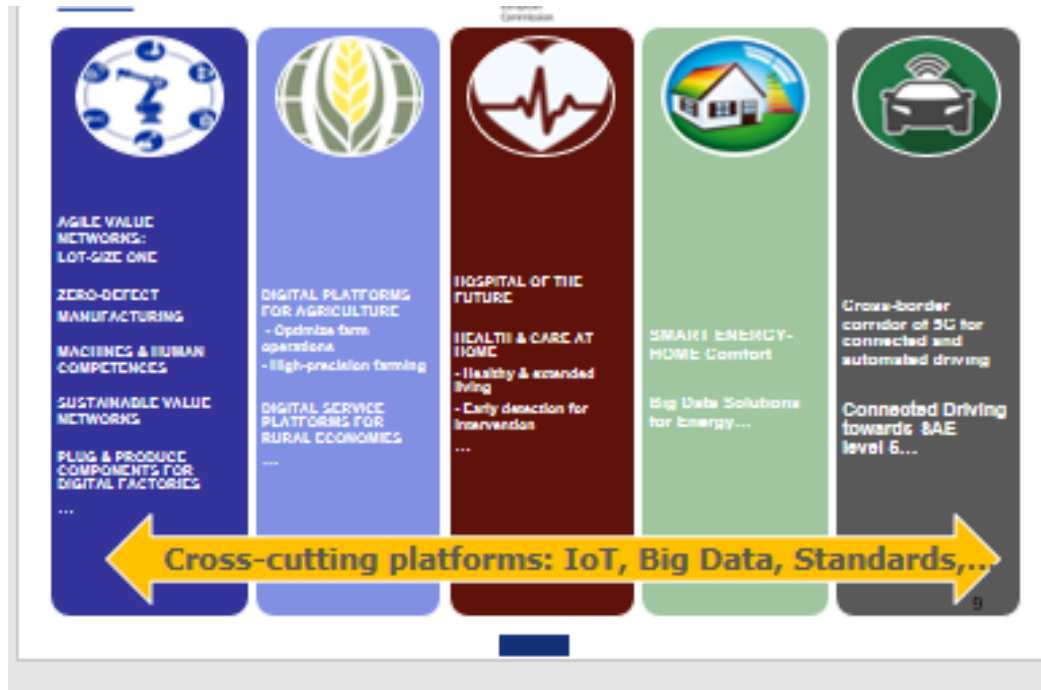


# Industrial IOT Platforms Strategy

- >> „The value of a platform comes through the size of the ecosystem to support it” >>
- What **Strategy for European actors for Industrial IoT?**



- **Focus Area on Digitisation & Transformation**



### Horizon 2020 (300 M€ for 2018-20)

- Next generation platform building and piloting through large scale federating projects
- Common EU-wide strategies pooling resources

See

- <https://ec.europa.eu/digital-single-market/en/industrial-platforms-and-large-scale-pilots>

# IIoT will be key building block for Artificial Intelligence

- **IIoT supported by changing value chains**
  - IIoT includes an **open ,environment‘** for connecting systems and **a multitude of Industrial ,Things‘**
  - **,Things‘ include everything** from simple sensors to smart devices with sophisticated embedded control systems (like vehicles, robots, machines)
- **IIoT driven by emerging Topologies :**
  - **Within Existing Systems** → collect data for analysis, add new functionality
  - **Highly Distributed Systems** → manage distributed assets, connect IT and OT, improve effectiveness
  - **OUTSIDE Systems** → include environmental data, Learning systems → AI
- **IIoT – Leading reflections on Future Trends**
  - Massive connectivity through **5G networks**
  - From Cloud-Server architectures towards Serverless // From Central to Mesh
  - Ensure safety & control beyond connectivity – **Cyber Physical Systems**
  - More **Intelligent Edge** combines computing, connectivity, decision making & learning
  - Data Analytics in the backend: **Digital Twins** combined with machine learning,

**Objective:** *ensure that **Europe drives the digital transformation** of society and economy, bringing **benefits to all citizens and businesses***

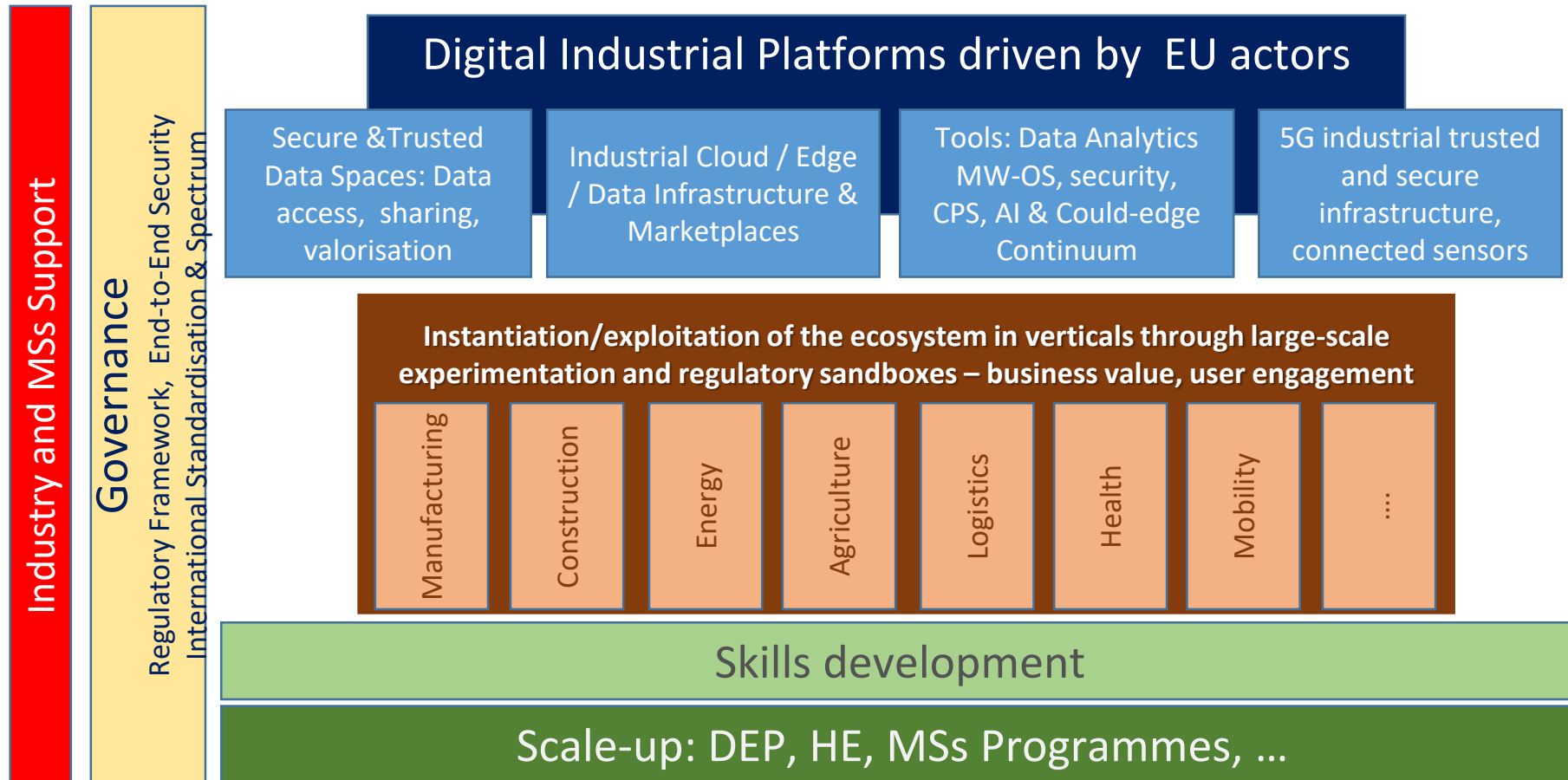


*More specifically to:*

- Reinforce the EU's **digital capacities**
  - **Secure & Trusted Industrial Data Space(s)**  
(computing, data, cybersecurity, AI,...)
- Prepare for and lead the **next generation technologies**  
(Cloud, Edge, CyberPhysical, AI, Crypto)
- Build a **world-leading connectivity infrastructure**
  - **5G industrial and secure network infrastructure**  
(low latency, dedicated spectrum slicing, NFV)



## Common European Industrial IoT and Data Ecosystem



SVC-IIoT Workshop 16 May 2019, CNECT-A2 ML

- ??? Questions for the Panels ???

## Key Building Blocks for Seizing the AI Potential:

- ? **HPC, algorithms, and data-sharing and data-usage tools**
- ? **Converging Technologies IoT, AI, cloud, big data,..**
- ? **5G networks – standards – deployment & up-take**
- ? **Reflect on Mission-critical Value chains...**
- ? **Need of Public Intervention in Key Sectors  
( Data Spaces, Network & Services ) ?**

# AGENDA for the Morning Sessions

09.00	<i>Arrival and coffee</i>	
09.30	<i>Welcome and introduction</i>	<b>Ovidiu VERMESAN,</b> SINTEF  Partners, CREATE-IOT
09.40	<i>Strategic Value Chains – work of Strategic Forum</i>	<b>Szabolcs Szekacs,</b> DG GROW
09.55	<i>Industrial IoT – Setting the Scene</i>	<b>Rolf Riemenschneider,</b> DG CONNECT
10.05	<i>Secure Trusted Data/Knowledge Applications &amp; Infrastructure</i>	<b>Sergio Gusmeroli,</b> POLIMI, IT
10.45	<i>HPC/Cloud/Edge Infrastructure</i>	<b>Natalie Samovich,</b> Enercoutim, PT
10.15	<i>Coffee break</i>	

- **??? Questions for the Panel ???**
  - ? Global Competition – Leadership of EU Actors**
  - ? Reflect on Changing Value chains...**
  - ? How to trigger a bold investments in Digital Infrastructures**
  - ? Need of Public Intervention in Key Areas**
    - ? at national, cross Member States, @EU-level ?**
    - ? Role of industry and existing partnerships**
  - ? What Use cases to support a revised Industrial Policy ?**



## Background & Useful links:

- **Digitising European Industry Strategy (DEI):**  
<https://ec.europa.eu/digital-single-market/en/digitising-european-industry> → FUTURIUM
- **Supporting and Building Platforms under DEI**  
- <https://ec.europa.eu/digital-single-market/en/industrial-platforms-and-large-scale-pilots>
- European Commission's [Strategy on Key Strategic Value Chains](#), Apr. 2019
  - [Conclusions on a EU Industrial Policy Strategy](#), A vision for 2030
- **Stakeholder Forum 2019 on 13-15<sup>th</sup> Nov. 2019 in Madrid**
  - [“Artificial Intelligence and Digital Innovation Hubs for the European industry”](#)
- **Common European data spaces for Smart Manufacturing**
  - **16<sup>th</sup> September in Brussels – [Registration Open](#)**