



# **"IoT for Home Comfort and Energy"**

**Geneva  
8<sup>th</sup> June 2017**

**Rolf Riemenschneider  
DG CONNECT/E4  
European Commission**



- OUTLINE
  - IoT as part of a Digital Strategy (DEI)
  - IoT & Energy  
→ A Platform-centered approach
  - Interoperability & Standardisation

# Digitising European Industry: **DEI Strategy**

Launched by Commissioner Oettinger  
at Hannover Fair on 19 April 2016

- Europe's future is digital:  
**Digitising European Industry**
- *Focus actions on digital transformation of **ALL industry***
- complementing our efforts on a **Digital Single Market**

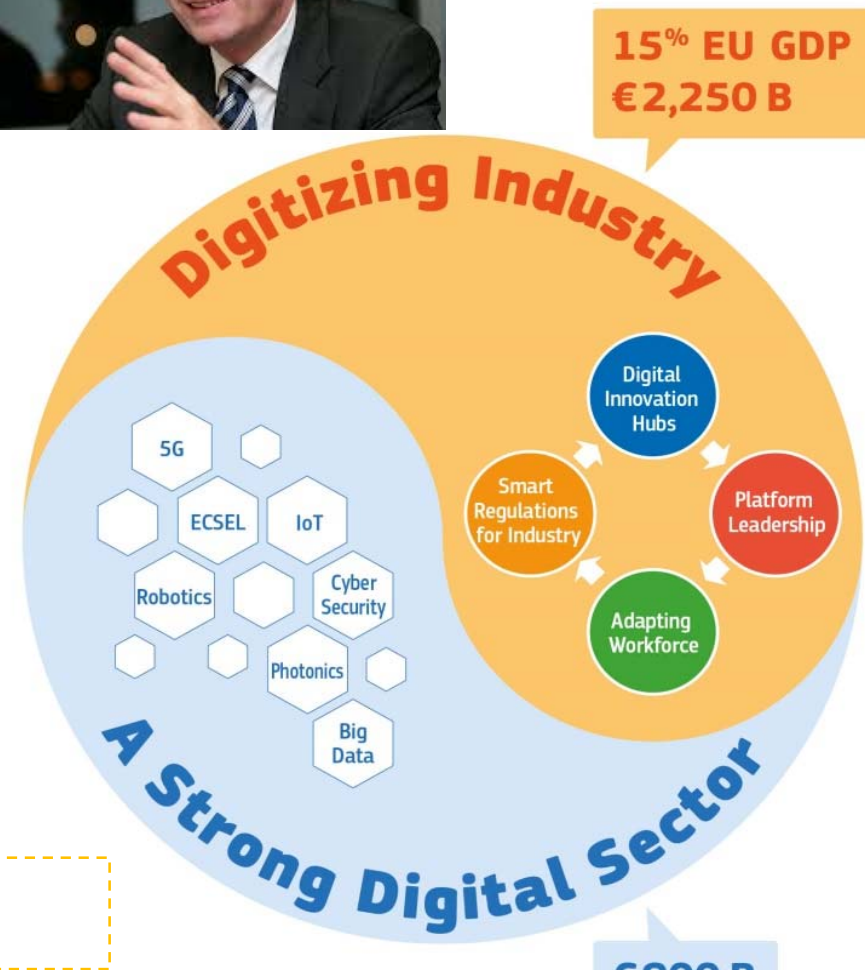
High-level Roundtables with  
Commissioner Oettinger

- Member States and industrial representatives welcomed EU plans and confirmed the need for action on EU scale

Events:

- DEI Stakeholder Forum in Essen  
on 2-3 February 2017

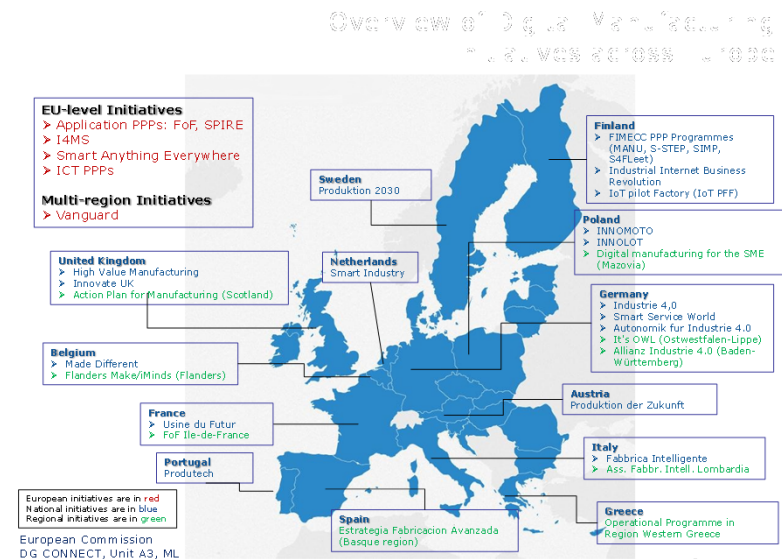
See <http://ec.europa.eu/futurium/en/dei-implementation>



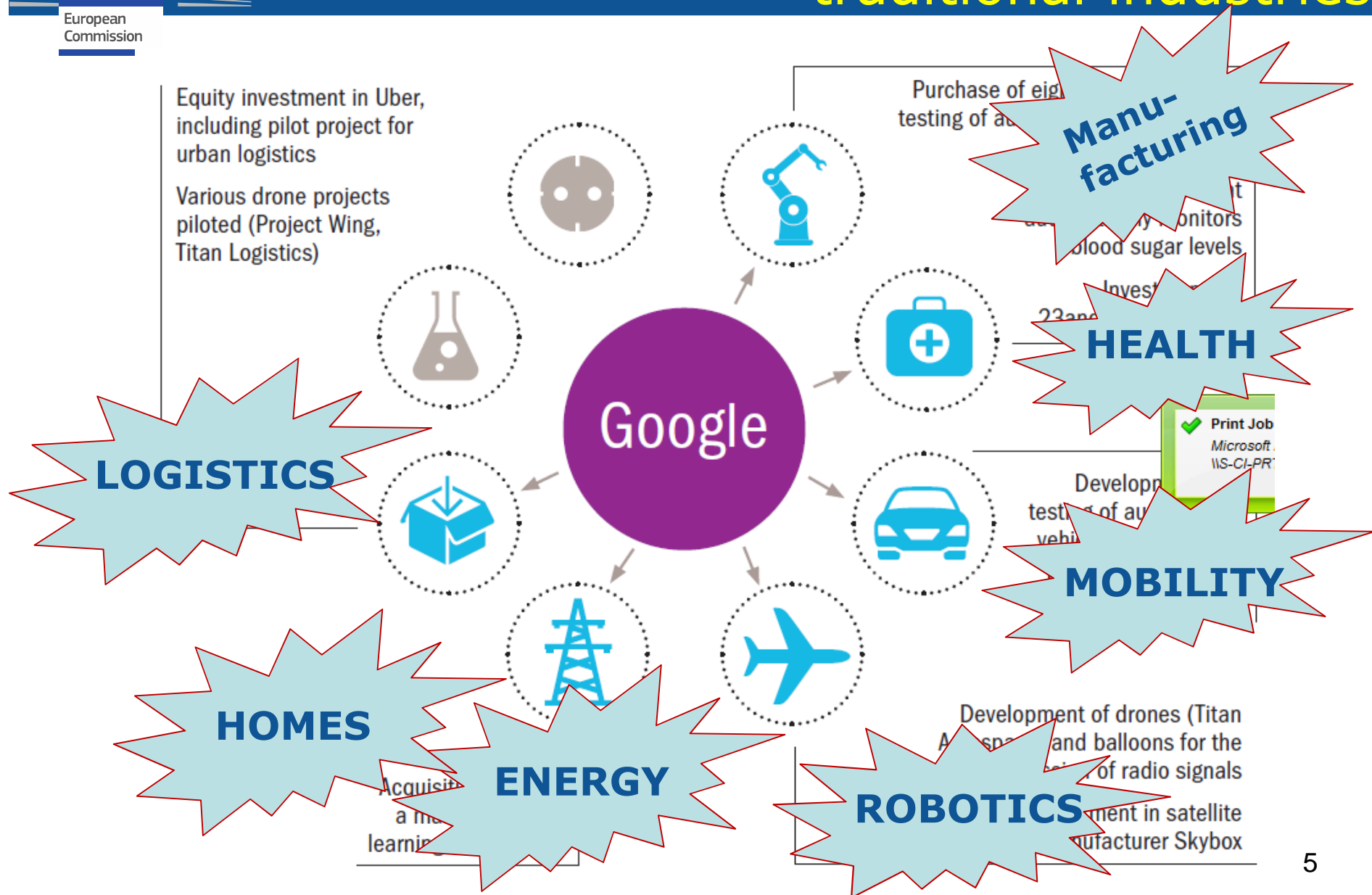
# Digital transformation of industry: What is the situation?

- ❑ Strong digitisation in high tech industries and in some MSs.
- ❑ Challenges:

- **New competition from non-EU digital platform owners**
- **Lack of standards and interoperable solutions**
- **Fragmentation of effort in Europe**
- **Skills and re-skilling of work force**
- **Legislative and regulatory gaps**



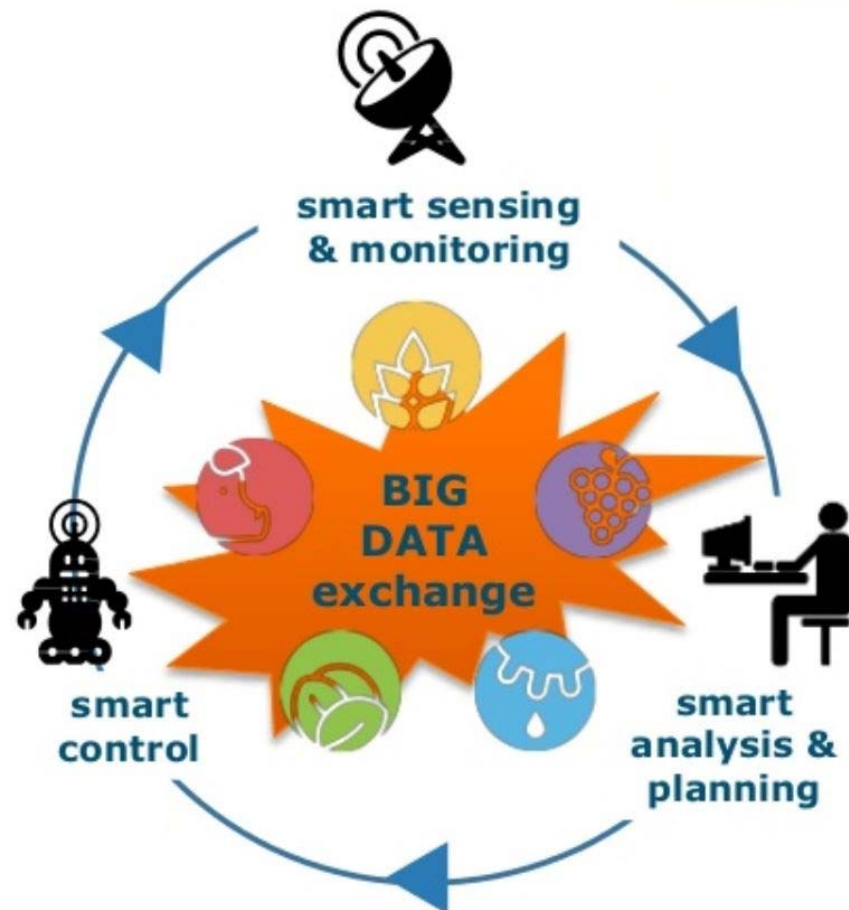
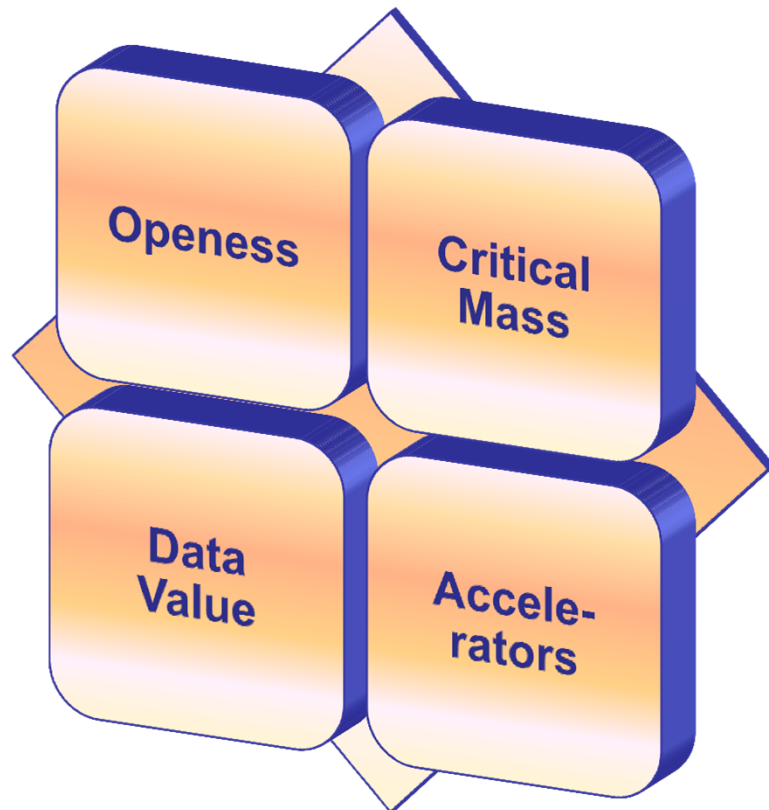
# Internet Giants compete with traditional industries





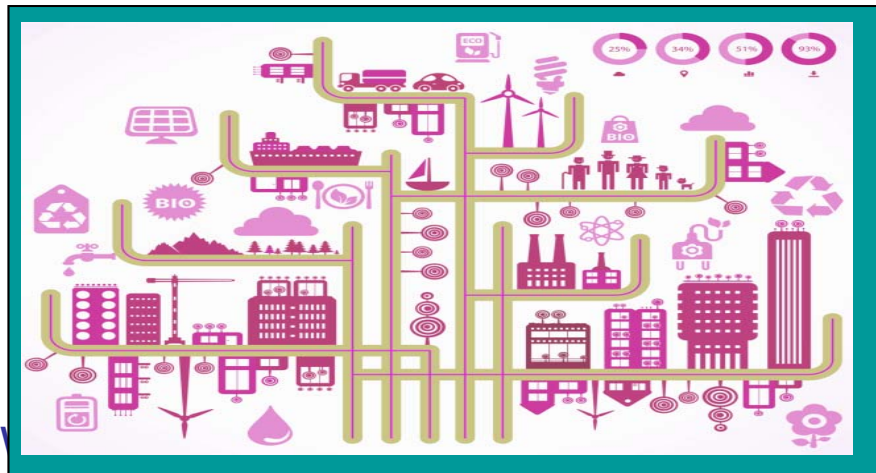
# Industrial IOT Platforms Strategy

- >> "Whoever controls the platforms will rule the future" >>
- What strategy for European actors / markets / regulators?



# Digitising EU Industry

- *Leadership in next generation open and interoperable digital platforms*



➤ To foster **competitiveness hubs** that will drive the **creation of ecosystems** and projects for **cross-sector industrial platforms** adapted to IoT

- Support experimentation environments and reference implementations for platforms

# Focus Area Digitisation

Topics pan-European platform-building and piloting



## DIGITAL MANUFACTURING PLATFORMS

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

PLUG & PRODUCE  
EQUIPMENT PLATFORM

...



## 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

...



## INTERNET OF THINGS FOR ENERGY: INTEROPERABLE AND SMART HOMES AND GRIDS

BIG DATA SOLUTIONS  
FOR ENERGY

...



## 5G FOR CONNECTED AND AUTOMATED DRIVING

...

← Cross-cutting platforms, IoT, Big Data, Security... →



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# Leadership in Digital Platforms

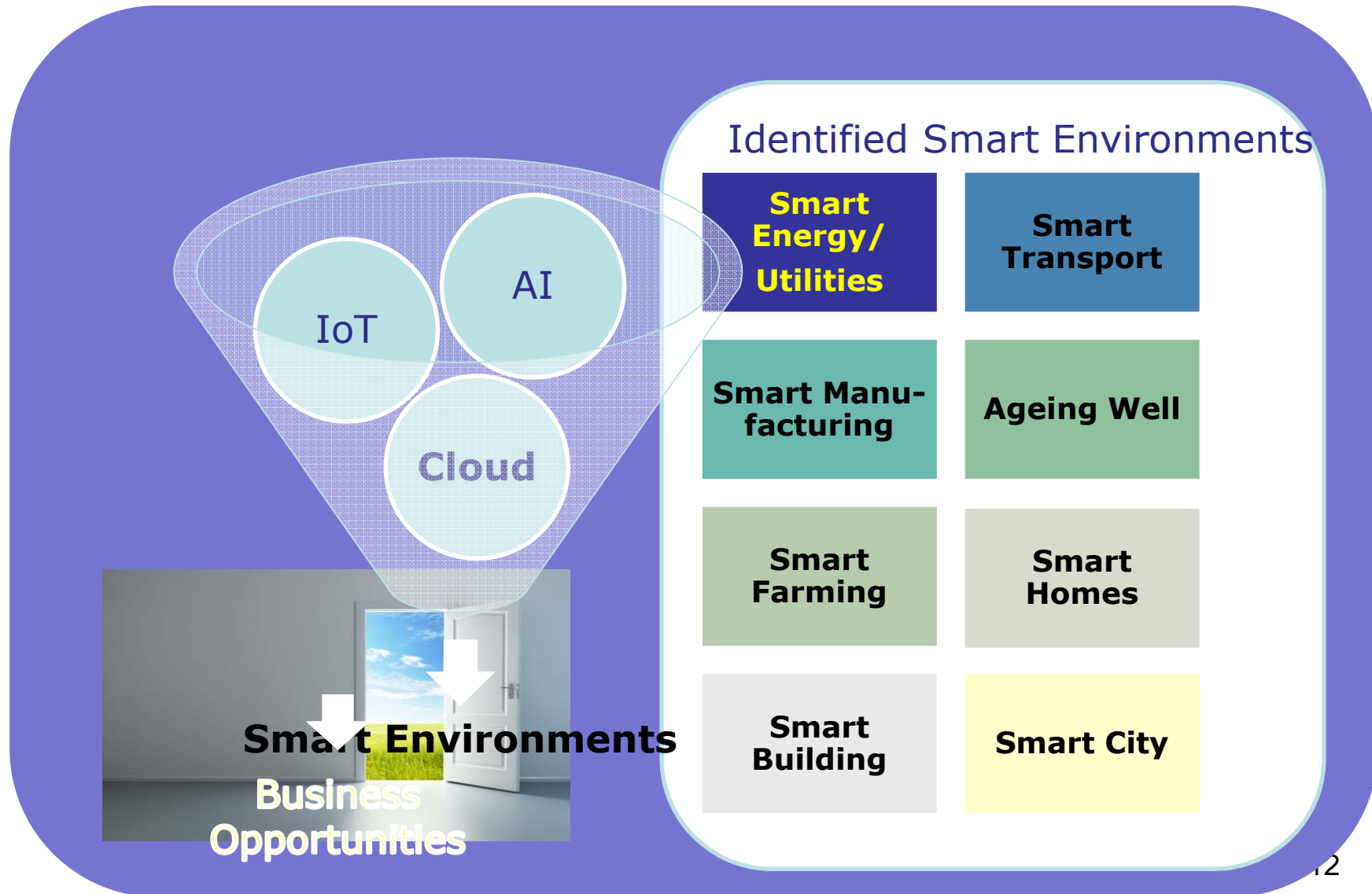


- Roberto Viola calls for new Business Models for the Internet of Energy
  - He stressed the need for new Business Models to sustain investment in an intelligent infrastructure for smart energy, avoid vertical silos to achieve economy of scale
  - ^Moving out of silos, beyond sector based innovation
  - "every object should be connected and interact with other objects and humans".

Ref.: High-Level Meeting on the **Interoperability for the Internet of Energy**, Brussels, 11 May 2017

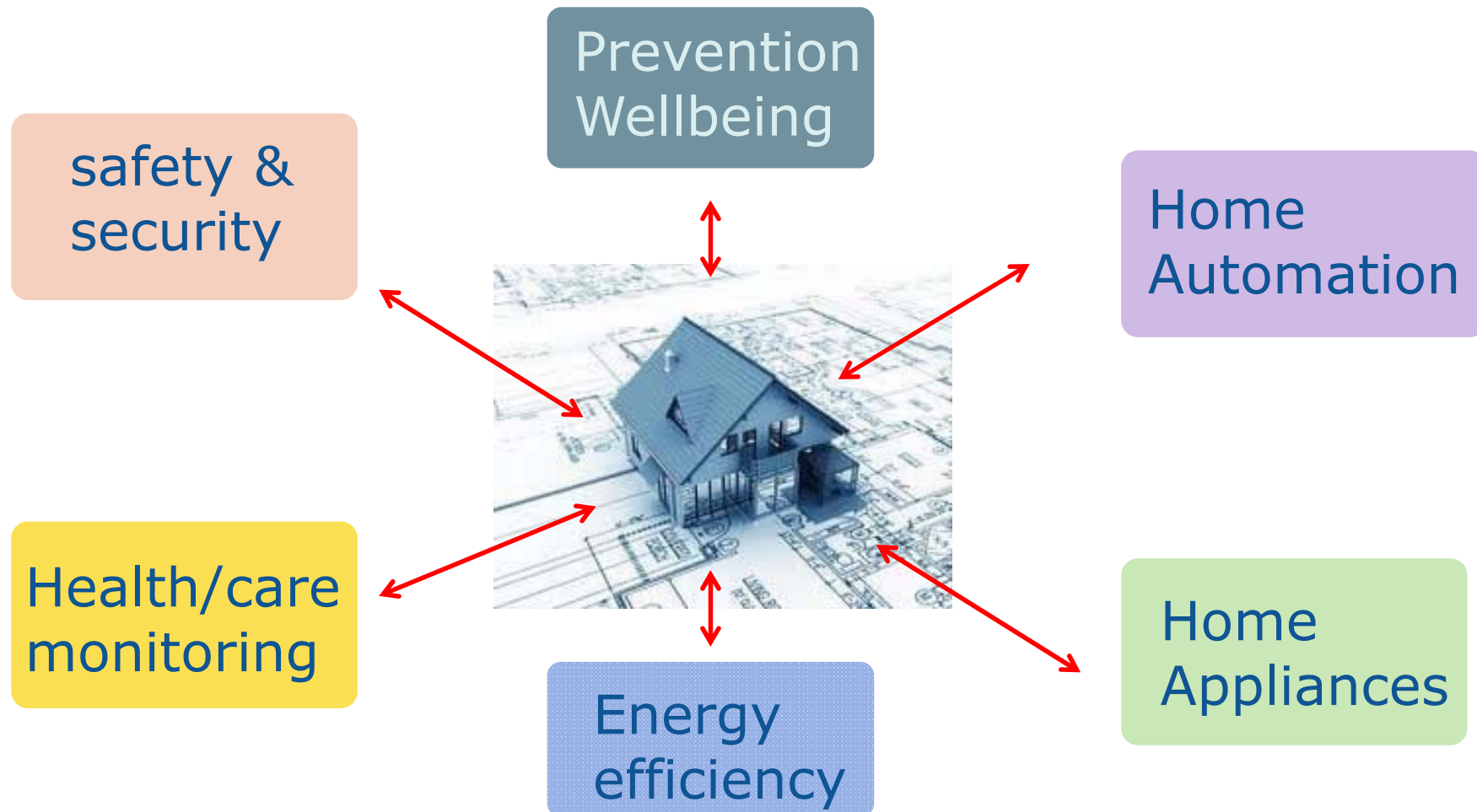


# New business opportunities converging IoT, cloud and data analytics



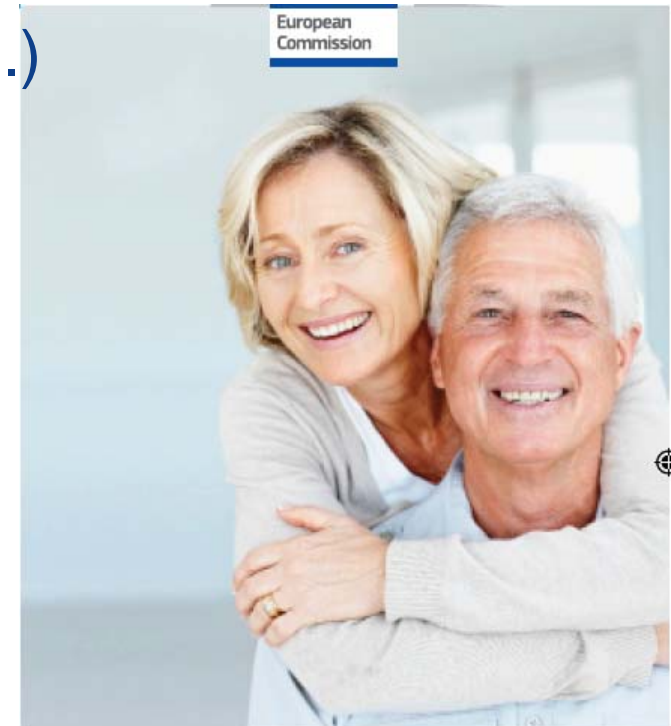
# HOME COMFORT in the Smart Home context

Internet of Things- SMART Home



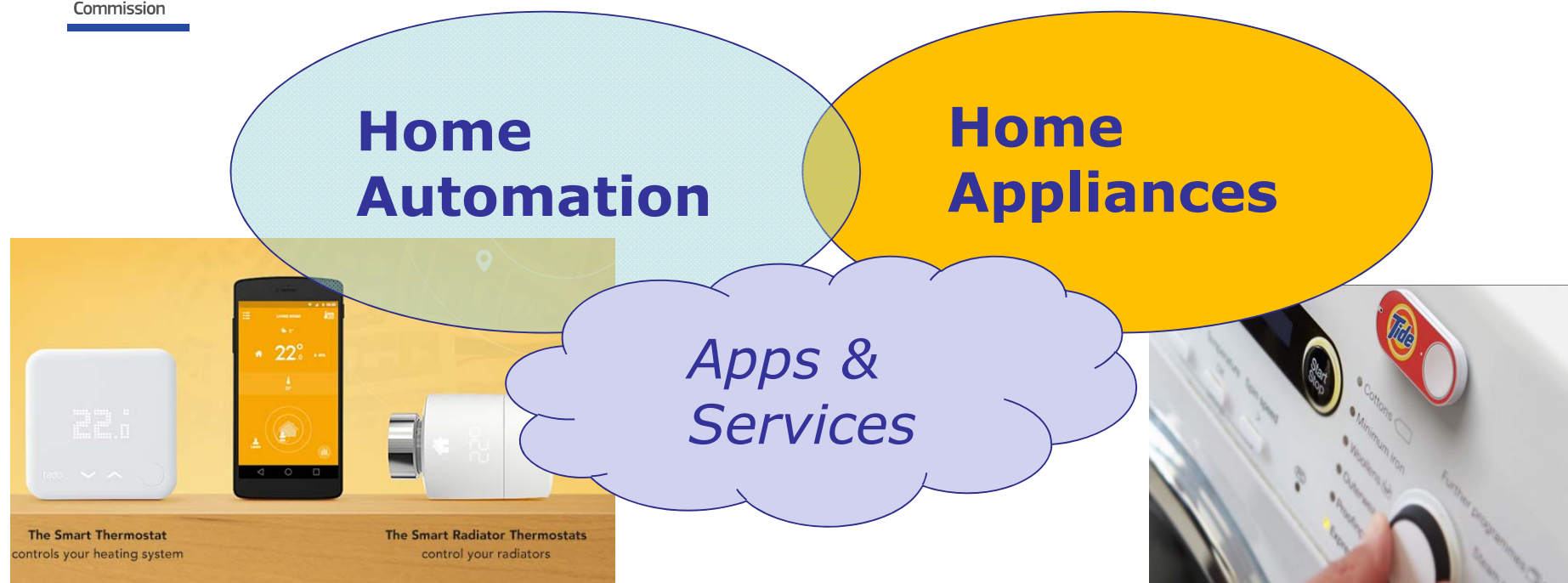


- New ICT technologies (IoT, AI, cloud..)
- Reference Pilot Sites
- Market Place
- [ec.europa.eu/active-healthy-ageing](https://ec.europa.eu/active-healthy-ageing)



**Active & Healthy Ageing**  
*A European Innovation  
Partnership*

# Pilot on Digital cross-cutting platforms



## *Cross-cutting Digital Platforms*

- **Integrating IoT, AI, cloud and big data**
- **Based on open API to allow for innovative services for energy management and home comfort**
- **Ensuring interoperability between smart home solutions through standards like SAREF**
- **Creating benefits from dynamic prices and/or providing services to the grid, such as balancing or congestion management**

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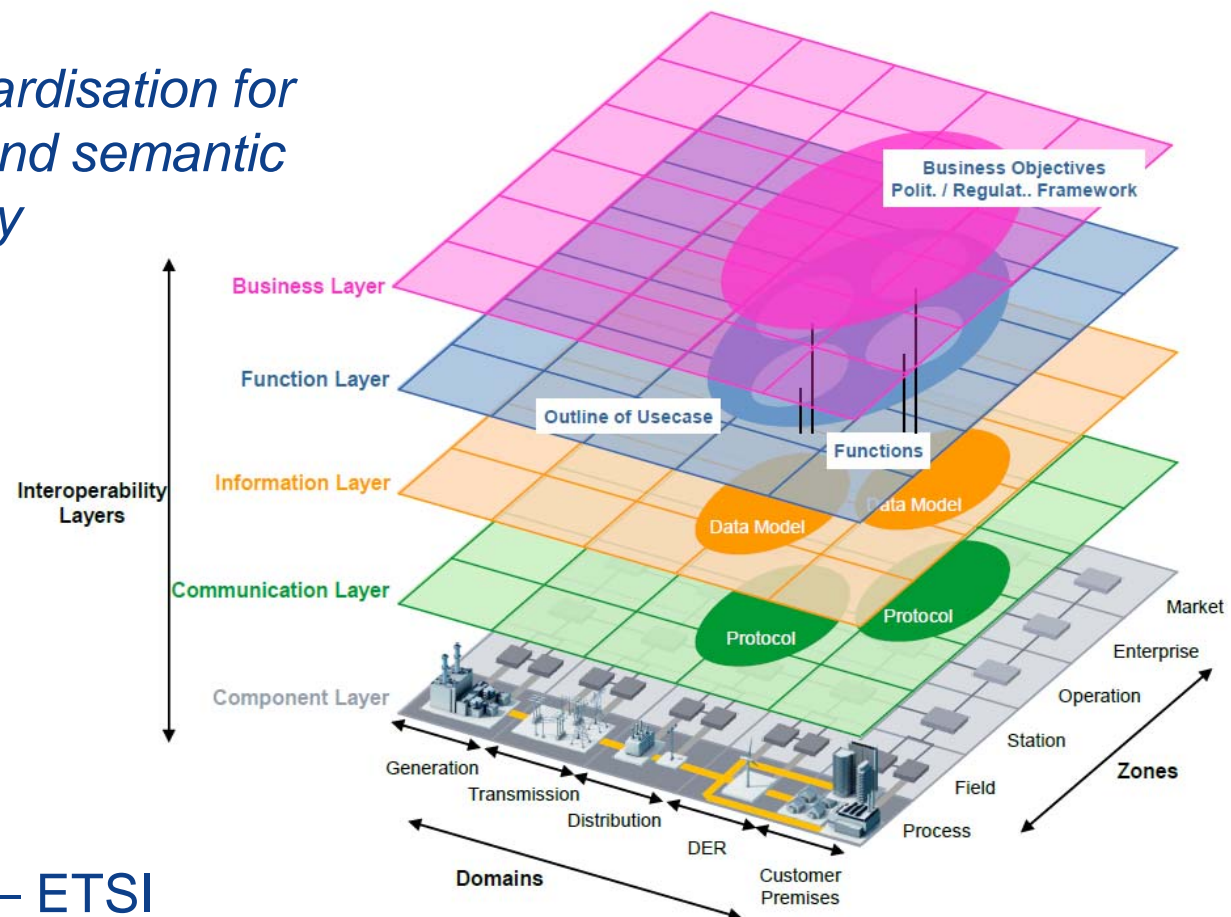
**The success of the Internet of Things depends strongly on the existence and smooth and effective operation of global standards.**

**(ITU)**

**6-9 June:  
IOT-  
WEEK.eu**

## ➤ Large-scale Pilots:

- *Applying a reference architecture model*
- *Driving standardisation for connectivity and semantic interoperability*

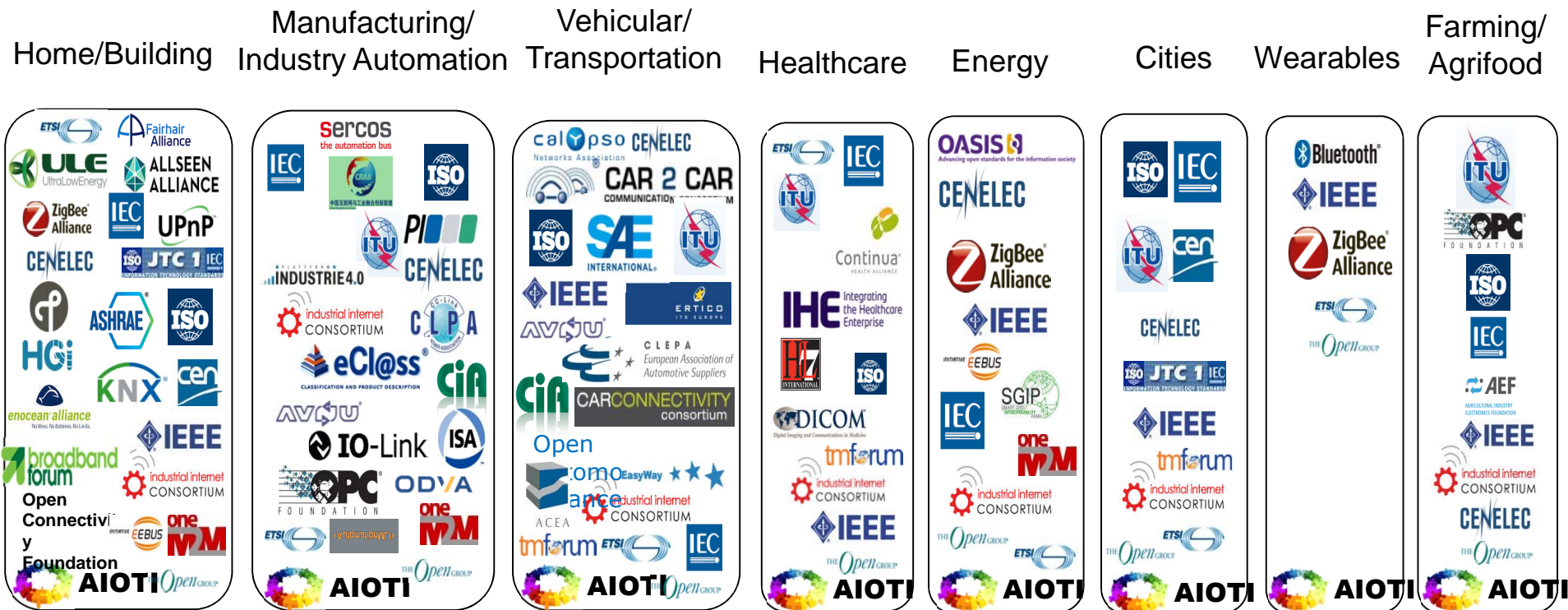


- Courtesy:  
CEN/CENELEC – ETSI





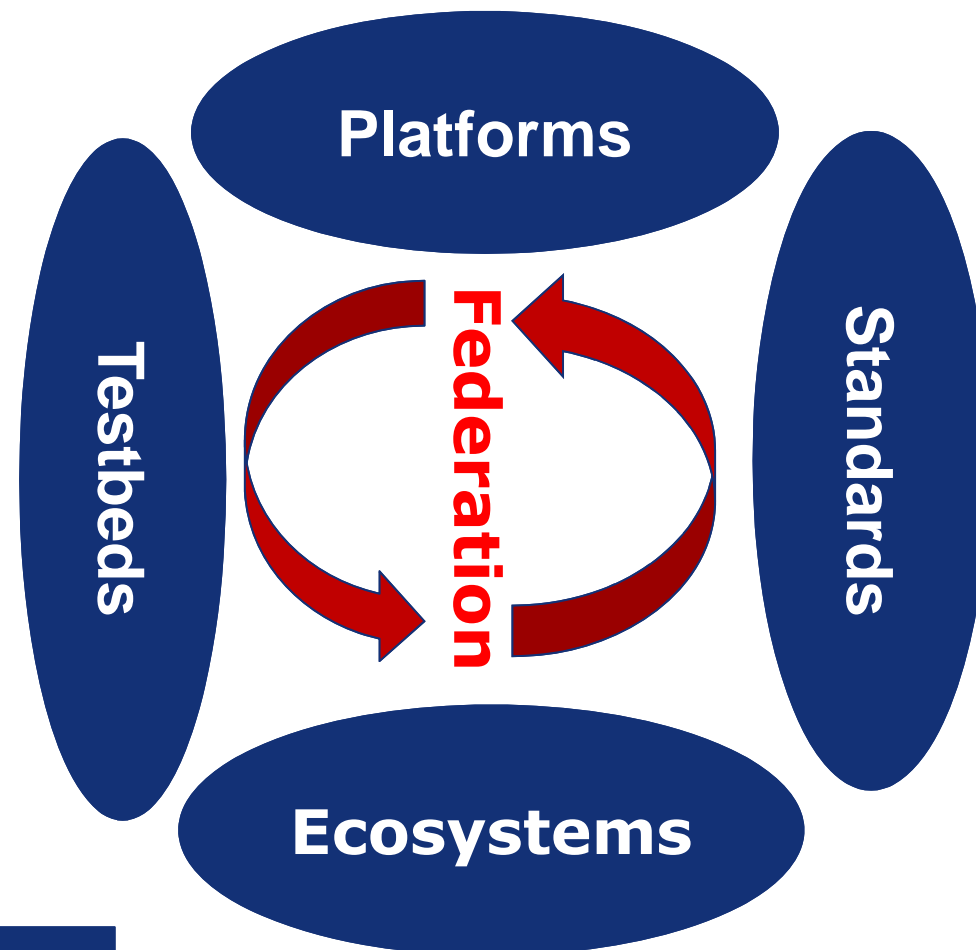
# IoT SDOs and Alliances Landscape



Horizontal/Telecommunication

## Focus Area DIGITIZATION:

- Leadership in next generation open and interoperable digital platforms
- To foster **competitiveness hubs** that will drive the creation of ecosystems and projects for **cross-sector industrial platforms** adapted to IoT



## Thank you - useful links

- Digitising European Industry Strategy (DEI):  
<https://ec.europa.eu/digital-single-market/en/digitising-european-industry> → FUTURIUM
- European IoT Platform Initiative EPI  
<http://IoT-EPI.eu>
- The Alliance of Internet of Things Innovation  
<http://www.AIOTI.eu>
- EUSEW 2017: 21 June in Brussels  
<http://EUSEW.eu/digitisation-energy>
- NetFutures 28-29 June  
<http://netfuturesconference.eu/>

