"IoT for Clean Energy and Responsible Consumption & Production"

Geneva 7th June 2017

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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
• High-level industrial representatives for action on EU scale

Consultations:

• DEI Stakeholder groups

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

Source: Roland Berger

Equity investment in Uber, including pilot project for urban logistics
Various drone projects piloted (Project Wing, Titan Logistics)

Google

Manufacturing
Health
Mobility
Logistics
Homes
Energy
Robotics
• COP21 – Energy Union – → Clean Energy Package 2016
  • What strategy for European actors / markets / regulators?

• „The Winter Package 2016“
• Modernising the grid infrastructure
• Deployment of Smart Meters
• Integrate Renewables
• Empowering the User
DG CONNECT views

- 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

Identified Smart Environments

- Smart Energy/Utilities
- Smart Transport
- Smart Manufacturing
- Ageing Well
- Smart Farming
- Smart Homes
- Smart Building
- Smart City
Setting up innovative platforms
- that can be rules by leading enterprises
- That can be shared by firms of very small to medium size,
- relying on industrial sectors, ecosystems and innovation hubs

A key to developing successful platforms and services is
- to put them in the hands of autonomous teams/innovators
- To provide the hooks to regional clusters and developer communities
Cross-sector IoT services and new business models

- Internet of Energy –
  - Moving away from silos of different sectors
  - Exploiting new business models
  - Focus on SME, midcaps
  - Knowledge through Data Sharing
  - User experience based on Internet platforms and social media
The success of the Internet of Things depends strongly on the existence and smooth and effective operation of global standards. (ITU)
Source: AIOTI WG3 (IoT Standardisation) – Release 2.6
Large-scale Pilots:
- Applying a reference architecture model
- Driving standardisation for connectivity and semantic interoperability

- Courtesi: CEN/CENELEC – ETSI
Platforms for the Internet of Energy

Leadership in next generation open and interoperable digital platforms

Main Characteristics

- Smart connected devices
- Interoperable Services
- Secure, safe Operation
- Co-creation with users
- Transaction support like Blockchains
Platforms for the Internet of Energy

Every object should be connected and interact with other objects and humans

Smart Connected Devices & Systems

- Appliances, white goods
- Boiler, Heating
- Lighting
- Cooling, ventilation
- PV panels
- Batteries, electric vehicles
Concluding on Internet of Energy

- **Clean Energy Package**
  - Interoperable devices and systems
  - Grid – Demand-Response management
  - Support electrification trend

- **Collaboration across multiple verticals**
  - Cross-cutting business models to drive investments in grid infrastructure
  - Testbeds + large scale experimentation
    - Broad experimentation by SMEs and mid-caps
  - User validation and bundled services

- **Pilot support through Horizon 2020**
  - Building on existing platforms/ref architectures
  - Identification of business scenarios and applicable (or needed) standards
    → collaborate with ETSI, and the alliance AIOTI
  - Provide access to SMEs and start-ups
    - Ecosystem – Market Place - societal, users
Attention to Sessions

- *IoT for Home Comfort and Energy*
  *Thursday 08 June 09 h*

- *IoT Standards Convergence*
  *Friday 09 June 09h*
• Digitising European Industry Strategy (DEI):

• European IoT Platform Initiative EPI
  http://IoT-EPI.eu

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

• IoT Week: 06–09 June in Geneva
  http://IoT-Week.eu

• NetFutures 28-29 June
  http://netfuturesconference.eu/