Implementing the Digitising European Industry initiative

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ARTEMIS Brokerage 2017, Brussels
1. We will use the tools of Horizon2020 and ECSEL to support research and innovation.

2. EC will reinforce partnerships with industry, member states and regions.

3. We will put an emphasis on test-beds and large-scale experimentation.

4. We will organize a series of events to drive the partnerships.
• Under the Digitising European Industry Strategy:
  "Leadership in digital industrial value chains and platforms"
• Overall goal: aligning regional, national and EU strategies for large-scale reference implementations
  • Initiatives by industry and MSs/regions
  • EU provides linking pin: WP 2018-20, ECSEL, PPP FoF-ICT, etc.
  • Focusing on a small number of large Innovation Actions
Technologies driving the digital transformation

**IoT (physical meets digital)**
Embedded software, sensors, connectivity, actuators, low power ICT, lasers, ...

**Big data (value from knowledge)**
Analytics, storage, Cloud HPC, ...

Innovation in products, processes and business models

**AI and autonomous systems**
Robotics, automation, machine learning, self-driving, ...

4
Digital value chains

Micro-electronics & Computing

Autonomous driving

Healthy aging
Vision: Platforms to lead in digital technologies value chains

- Manufacturing of goods and fluids
- Agro-Food
- Energy
- Automotive Mobility
- Building/Home
- Health and well-being Industry

- Marketplace
- Big Data and Cloud
- Autonomous systems/robotics/artificial intelligence
- Cyber-physical and safety-critical Systems
- IoT/Connectivity
- Digital/electronic/photonic components
Digitising European Industry

To facilitate coordination of European, national & regional initiatives such as Industrie 4.0 (DE), Smart Industry (NL) (SK), Industrie du Futur (FR)

Mainstreaming digital innovation across all sectors:
Setting up a pan-European network of Digital Innovation Hubs

Preparing People for the digital age: Skills & Training

Regulatory framework:
- Free flow of data & data ownership
- Safety & liability of autonomous systems & Internet of Things

Strengthening leadership in key parts of the digital value chain:
- Public-Private Partnerships
- Industrial platforms
- Large scale pilots & test beds

Digitising Europe in a data-driven economy:
- European Open Science Cloud
- European Data Infrastructure
- Widening access & building trust

CLOUD

STANDARDS

Fast development in 5 priority areas:
- 5G
- Cloud Computing
- Internet of Things
- Data Technologies
- Cybersecurity

DIGITAL PUBLIC SERVICES

eGovernment Action Plan:
- New Digital Single Gateway
- eJustice Portal
- “Once-only” principle in Administrations
- Cross-border Health services
- eProcurement & “Once-only” in public procurement

Challenges & opportunities of the Internet of Things

To focus investments
(Horizon 2020, EU Investment Plan, EU Structural & Investment Funds, national & regional funds, private sector)

MOBILISING €50bn of public & private investments

#DigitiseEU @DSMeu
DigitalSingleMarket
bit.ly/DigitiseEU
Key challenges for Industry 4.0 (Kagermann)

- Semantics and models for Industry 4.0
- Systems engineering for adaptive systems
- Logistics 4.0 – self organised and adaptive
- Automated contracting and value networks
- Autonomous production systems and human interaction
Starting Point: Industry-driven platforms

Community-led sector-specific (vertical)
- RAMI

Community-led cross-sector (horizontal)
- S3P
- IDS
- AIOTI

Proprietary with open interfaces
- SIEMENS
- DASSAULT SYSTEMES
- SAP HANA
- ARROWHEAD
Pooling of Resources for pilot production initiative

Pooling of Resources – Co-investment

Regional Investments

- Best practice Experimentation in zzz aerospace lab

Industrial Investments

- Best practice Experimentation in xyz truck lab
- Real production Auto OEM x with supply chain

Member States Investments

- Large scale experimentation in yyy automotive lab
- SME testing facility at zyx digital innovation hub

EU Investments

- FoF/ SPIRE/ ECSEL / ...

Development and integration of platforms, interoperability frameworks, ...
THANK YOU and stay tuned!

Digitising European Industry

Twitter: #DigitiseEU
Smart Connected Factory Platforms