European Network for
Rural Development

eip-agri
AGRICULTURE & INNOVATION

**European Rural Networks'
Assembly**

Digitising European Industry

Joël Bacquet (DG CONNECT)
Internet of Things

#DigitiseEU

#RNAssembly2016

**3rd Meeting
Brussels – 1 December 2016**

European
Commission

1. Digitising European Industry

2. Innovation Hub

3. Digital value chains and platforms

4. IoT supporting Smart Agriculture

What is this about?

Objective:

Ensure that any industry in EU, big or small, from any sector can benefit from digital innovations.

Foreseen Activities:

Mainstreaming digital innovations across all sectors

Strengthening leadership in digital technologies

Preparing people for the digital age

Regulatory framework

Coordination of various initiatives - MS, regional, EU

Pool resources, avoid fragmentation, 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

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

Strengthening leadership in key parts

- Public-Private Partnerships
- Industrial platforms
- Large scale pilots & test beds

Preparing People for the digital age: Skills & Training

Regulatory framework:

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

Challenges & opportunities of the **Internet of Things**

CLOUD

European Cloud Initiative in a data-driven economy:

- European Open Science Cloud
- European Data Infrastructure
- Widening access & building trust

High Performance Computing

Quantum

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

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

MOBILISING €50 bn of public & private investments

#DigitiseEU
@DSMeu

DigitalSingleMarket

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Towards a European Platform of national initiatives

EU-level Initiatives
Application PPPs: FoF, SPIRE
ICT Innovation for Manufacturing
SMEsb(I4MS)
Smart Anything Everywhere
Digital Sector PPPs

Multi-region Initiatives
Vanguard

United Kingdom
➢ High Value Manufacturing Catapult
➢ Innovate UK
➢ EPSRC Manufacturing the Future
➢ Action Plan for Manufacturing (Scotland)

Belgium
➢ Made Different
➢ Flanders Make/iMinds(Flanders)
➢ Marshall 4.0 (Wallonia)

France
➢ Nouvelle France Industrielle
➢ Industrie du Futur
➢ Transition Numérique
➢ Le Programme des Investissements d'Avenir
➢ Plan Industries Ile-de-France

Portugal
Industria 4.0
PRODUTECH

Spain
➢ Industria Conectada 4.0
➢ Basque Industry 4.0 (TECNALIA)

European initiatives
National Initiatives
Regional initiatives

Sweden
Produktion 2030

Denmark
MADE

Netherlands
Smart Industry

Italy
➢ Piano Nazionale Industria 4.0
➢ Fabbrica Intelligente
➢ Associazione Fabbrica Intelligente Lombardia

Finland
➢ FIMECC PPP Programmes
➢ DIGILE
➢ TEKES

Latvia
➢ Demola Latvia

Poland
➢ INNOMED
➢ INNOLOT
➢ CuBR
➢ BIOSTRATEG

Germany
➢ Plattform Industrie 4.0
➢ Mittelstand 4.0
➢ Smart Service World
➢ Autonomik fur Industrie 4.0
➢ It's OWL (Ostwestfalen-Lippe)
➢ Allianz Industrie 4.0 (Baden-Württemberg)

Slovakia
➢ Smart Industry

Czech Republic
➢ Průmysl 4.0

Austria
Produktion der Zukunft

Greece
Operational Programme in Region Western Greece

30/09/2016

European Commission

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DigitalSingleMarket

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Target: Access to digital technologies and   expertise

❏ within "working distance"

❏ for any industry in Europe

❏ with a focus on: SMEs, mid-caps, non-tech

How:

❏ "Digital Innovation Hubs" across Europe :

- Provide industry with access to technology, expertise, testing,… based on world-class specialised competence centre
- In line with smart specialisation strategy

❏ Thematic smart specialisation platform on industrial modernisation

❏ Support new partnerships for interregional joint demonstration

❏ Public procurement of innovations

European Commission

Digital Innovation Hubs focus on mixing technological competences within an ecosystem delivering innovation services

DIGITAL INNOVATION HUB

COMPETENCE CENTRE

Organised to provide services to industry

- Access to competence centres
- Development of innovation ecosystem
- Brokerage
- Access to finance
- Market intelligence
- Training and education
- Incubator/mentoring services
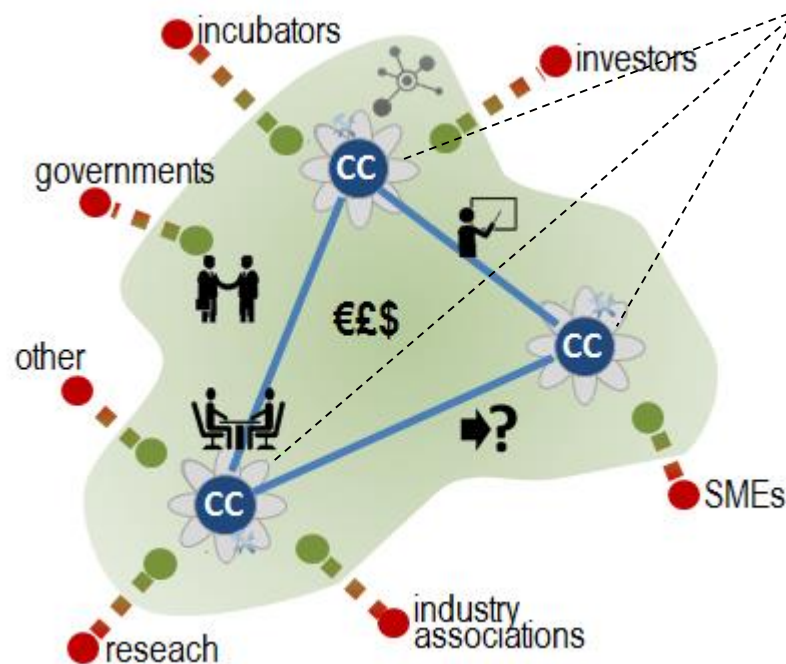
Competences in Digital Technologies

- Provide access to infrastructure and technology platforms
- Provide digitisation and application expertise
- Support experimentation in real-life environments
- Support fabrication of new products
- Demonstrate best practices
- Showcase technologies in pilot factories, fab-labs

Regions/MSs

❑ Establish/**reinforce competence centres and DIHs**

- Across Europe – specific support for regions without DIH
- Implement relevant activities if needed (incentives, …)

❑ **Collaborate with** digital innovation hubs of **other regions**

- to fill gaps and facilitate specialisation and excellence

Commission

❑ Support pan-European networking of Digital Innovation Hubs

- Share best practices, success stories, training
- Develop catalogue of Hubs, competences, etc

❑ Smart specialisation platform for industrial modernisation will provide tailored support to develop joint investment projects.

Industry

❑ Engage with DIHs, help set priorities,..

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- **Target**
  - **Alignment of** EU-wide R&I effort, national initiatives and industrial **strategies,** and
  - **Focus investments** on
    - Key technologies and their integration across all sectors
    - **Cross-sector digital platforms leading to EU-driven standards**
    - **Development environment: reference implementations and experimentation environments in real setting**
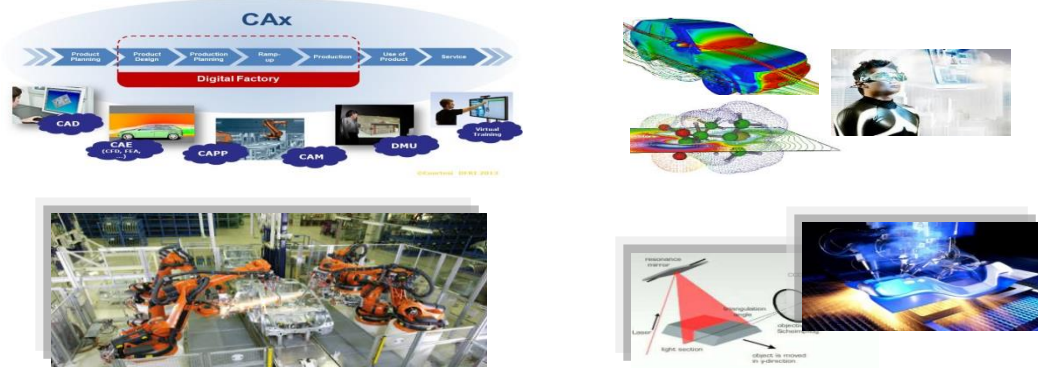

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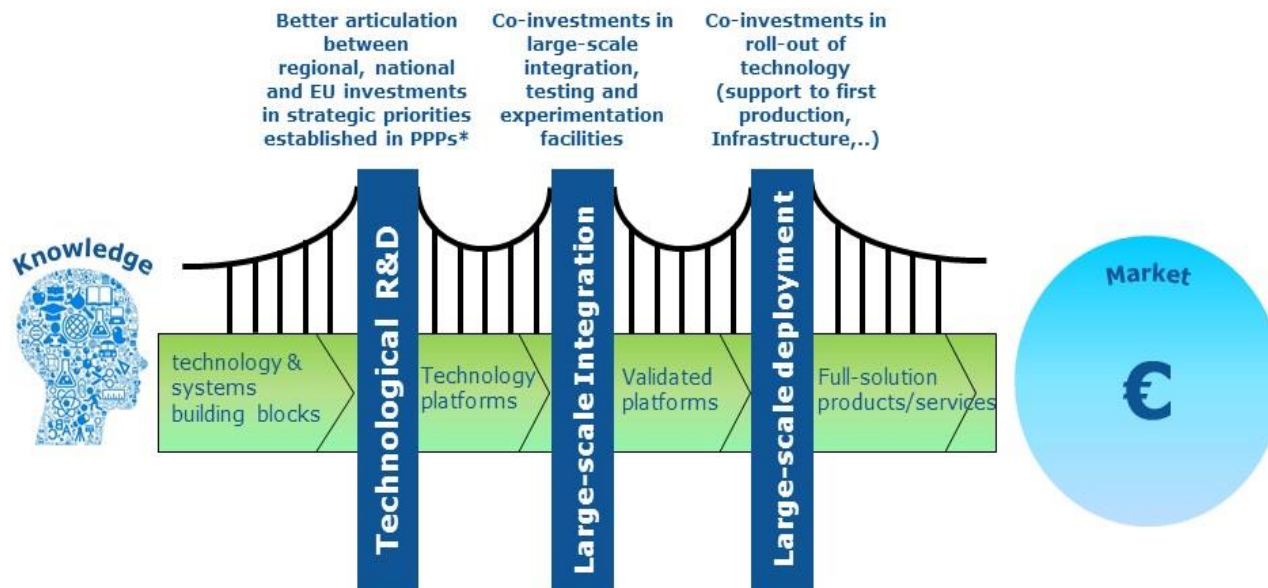
"Digital inside": Innovations <u>in products</u> (all types)

~40 % AV growth

~50%

~40%

~80%

Digital transformations of <u>processes</u>

Radical/disruptive changes in <u>business models</u>

IoT (physical meets digital)
Embedded software, sensors, connectivity, actuators, low power ICT, …

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

Innovation in products, processes and business models

AI (autonomous systems)
Robotics, automation, machine learning, self-driving,..
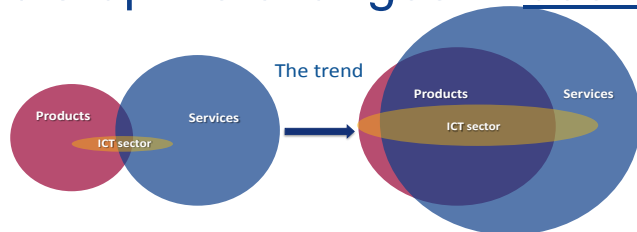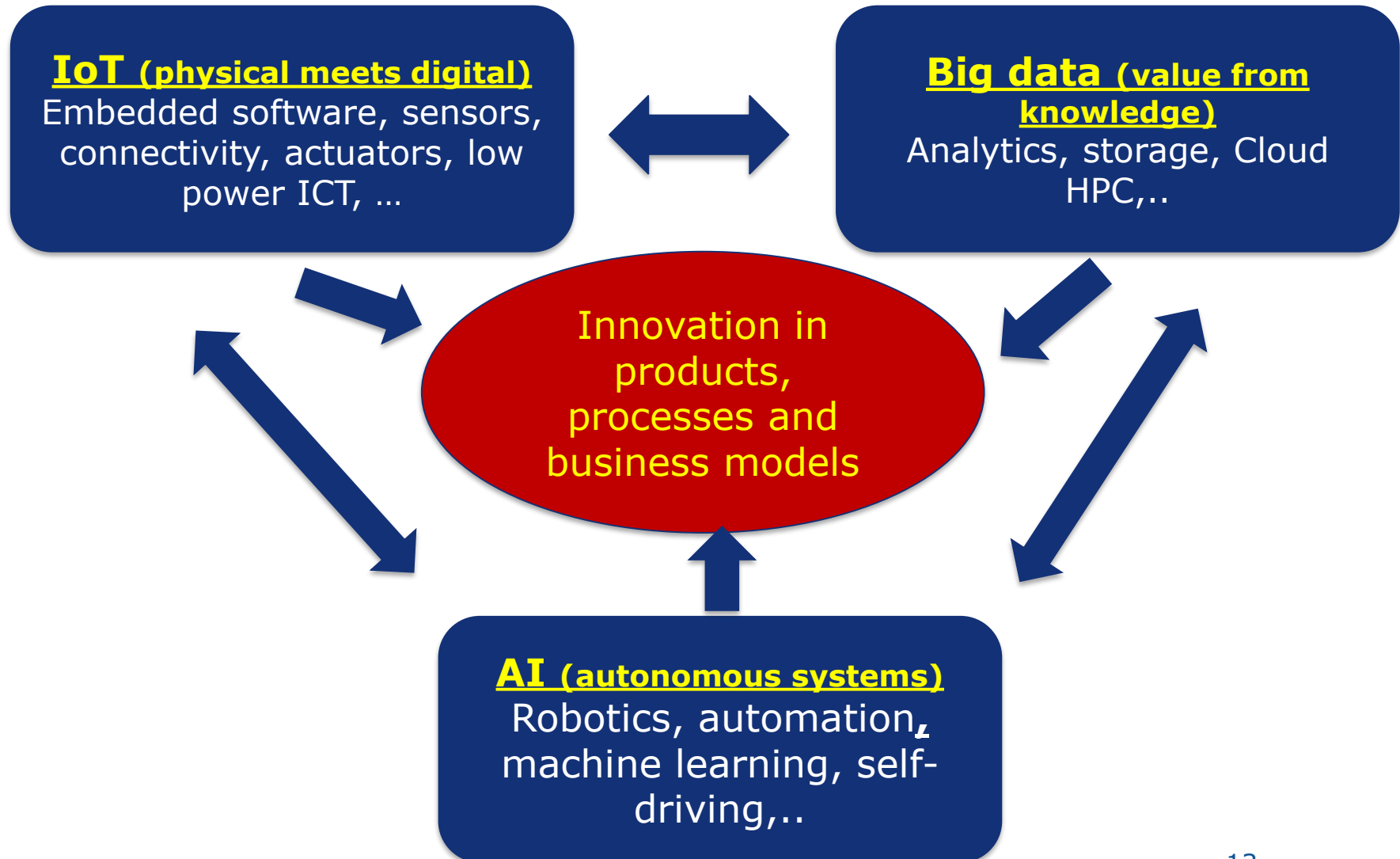
Two working groups established on Sept 20 DEI roundtable

- Representatives from Ministries in charge of digital strategy in industry
- Representatives from PPPs

WG1: Digital Innovation hubs

- Hub will help companies to understand digital opportunities and to get access to knowledge and testing facilities.
- WG1 to define a plan for strengthening a network of DIH in EU.

WG2: Digital industrial platforms

- EC to launch intiatives support the building/piloting the digital platforms of the future.
- WG2 to define a plan for better coordination and increased efforts.

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Internet of Things
2016-2017

139 M€

- **Cross-cutting focus area**
  - Contributions from **SC1** and **SC2**

- Increased support with the ambition to **foster the take-up of IoT in Europe** and to **enable the emergence of IoT ecosystems** supported by open technologies and platforms

- **Large scale pilots (100 M€) in 5 sectors:**
  - Smart living environment for ageing well
  - **Smart farming and food security**
  - Wearables for smart ecosystems
  - Reference zones in EU cities
  - Autonomous vehicles in a connected environment

European Commission

European Commission

- **Vision**:

Autonomous nodes, machines

Ubiquitous sensing, prediction

Precision farming, farm automation

X-Generation Farming, Rural Development

Arable

Dairy

Fruit

Veg.

Meat
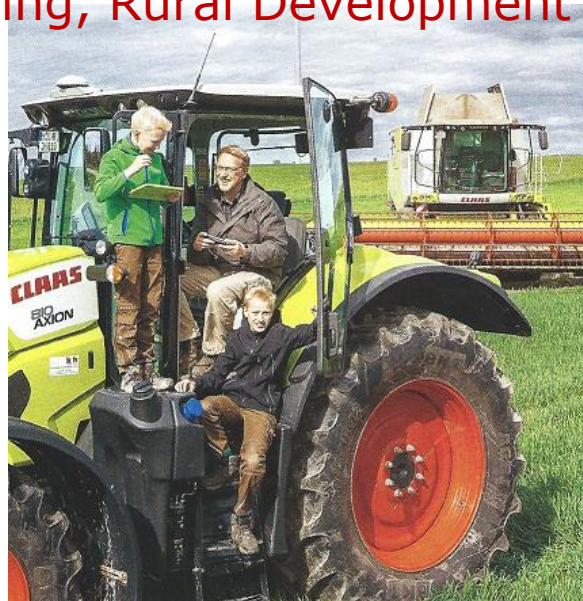
THANK YOU

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