Factories of the Future Horizon 2020: LEIT – ICT WP2016-17

FoF-12-2017: ICT Innovation for Manufacturing SMEs (I4MS)

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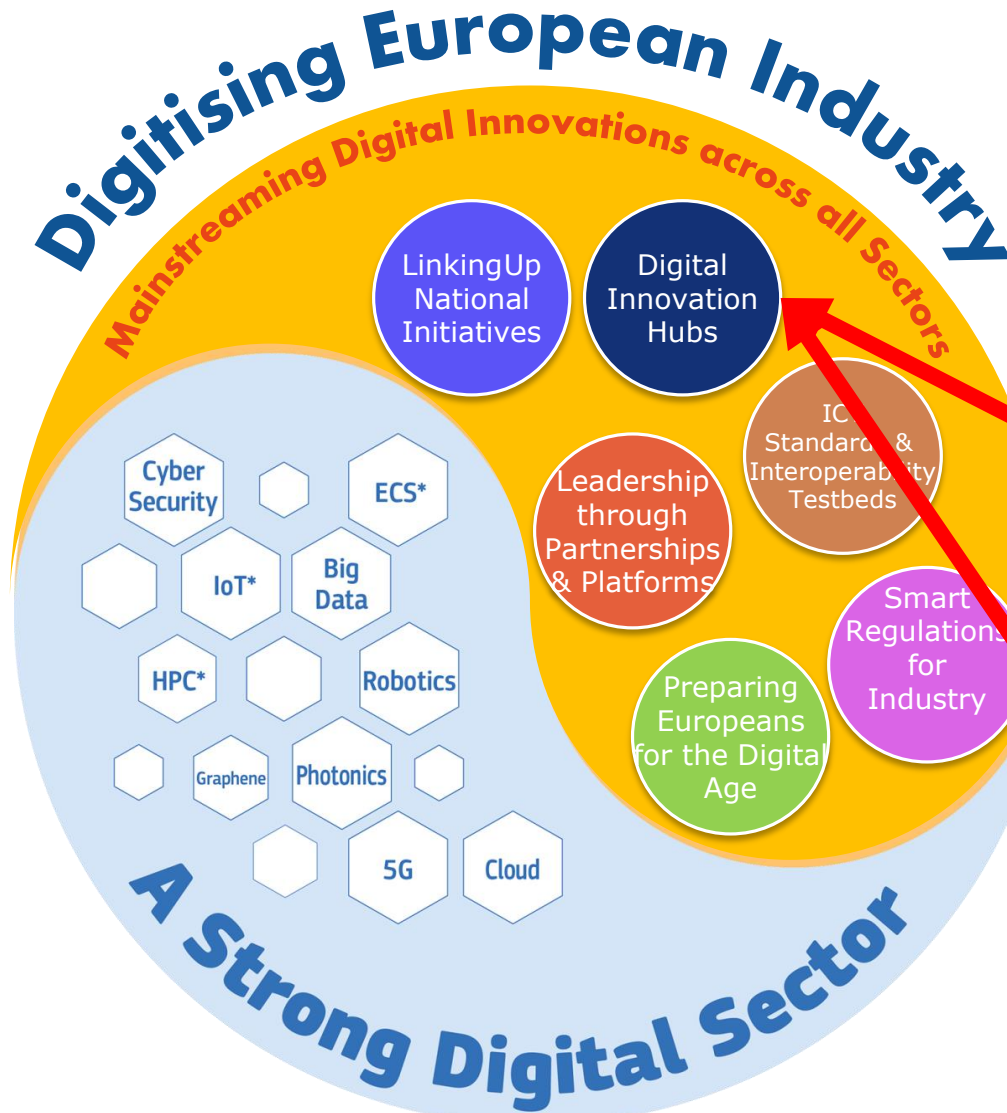
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Digitising European Industry

Mainstreaming Digital Innovations across all Sectors

- LinkingUp National Initiatives
- Digital Innovation Hubs
- ICT Standards & Interoperability Testbeds
- Leadership through Partnerships & Platforms
- Smart Regulations for Industry
- Preparing Europeans for the Digital Age

A Strong Digital Sector

- Cyber Security
- ECS*
- IoT*
- Big Data
- HPC*
- Robotics
- Graphene
- Photonics
- 5G
- Cloud

ICT-4: Smart Anything Everywhere

FoF-12: ICT Innovation for Manufacturing SMEs

http://ec.europa.eu/digital-agenda/en/digitising-european-industry

Scope:
- To take-up advances in ICT in manufacturing
- Strengthen SMEs by adopting new business models and/or service models

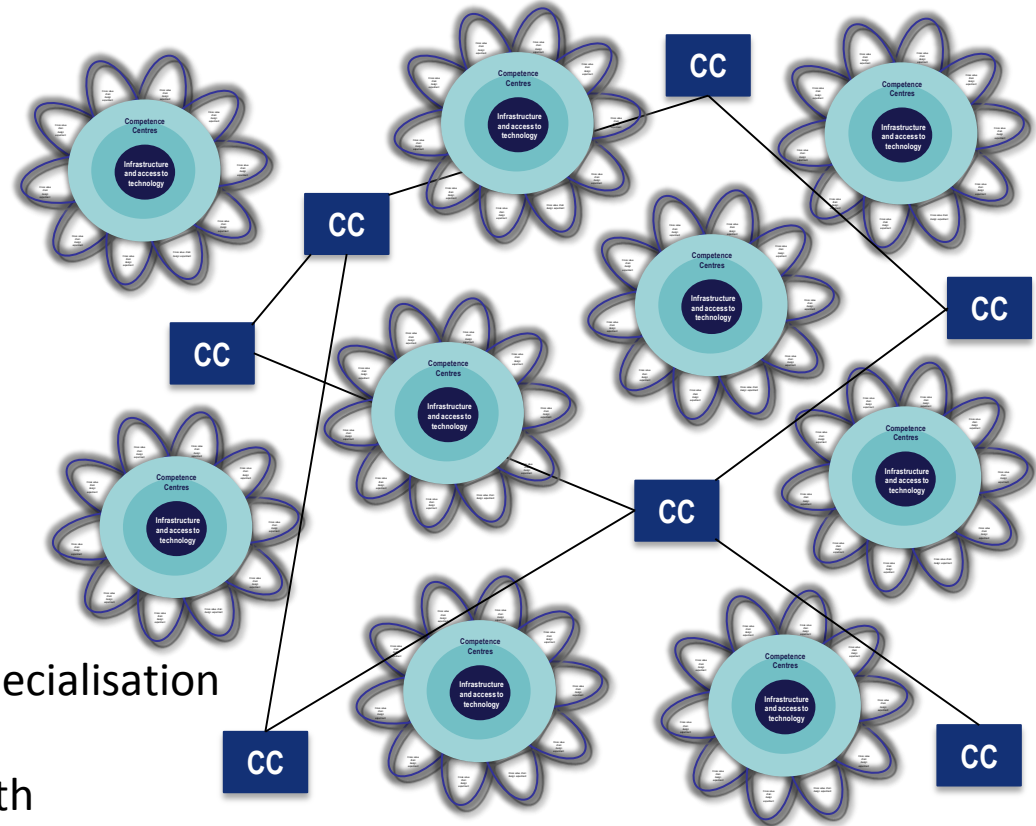- Call deadline: 19 January 2017

www.i4ms.eu

I4MS is part of the Factories of the Future PPP
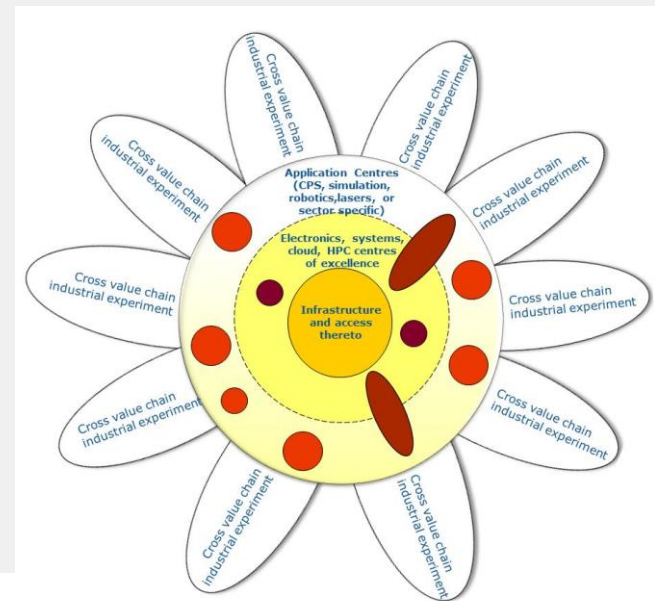
EU-wide network of Competence Centres Acting as the heart of Digital Innovation Hubs

Competence Centres

- Access to technology through marketplaces
- Service for developing products
- Brokers between suppliers and users

- Builds on regional strengths/smart specialisation
- Flexible and scalable
- H2020 funding can be augmented with
  - regional/structural funds, e.g. ESIF

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Develop novel products or services with digital technologies.

Bring together actors along value chain.

Suppliers to assist new users in customising and applying digital technologies in their environment.

Financial support to third parties may be used for flexibility

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Innovation Action Proposals should address 3 aspects

1.Establish a network of competence centres offering marketplaces for companies that want to experiment with digital technologies in manufacturing of discrete or continuous goods. Link with regional innovation hubs.

2.Carrying out a critical mass of cross-border experiments bringing together key actors across the full value chain to customise the technologies according to the requirements of new users.

3.Activities to achieve long-term sustainability of one-stop shop/market place services by competence centres and the eco-system. Investors should be attracted to support business development of SMEs and mid-caps.

- ✓ collaborate on reinforcing I4MS ecosystem,
- ✓ establish links to related activities, e.g. in the IoT Focus Area, ECSEL, SPARC, Big Data PPPs.

Existing and emerging EU networks of competence centres

can be complemented by

Satellite Nodes / Digital Innovation Hubs

Regional Satellite Nodes/Projects

- Feasibility studies
- Best practice experiments
- Local dissemination
- Skills development
- Infrastructure provisioning
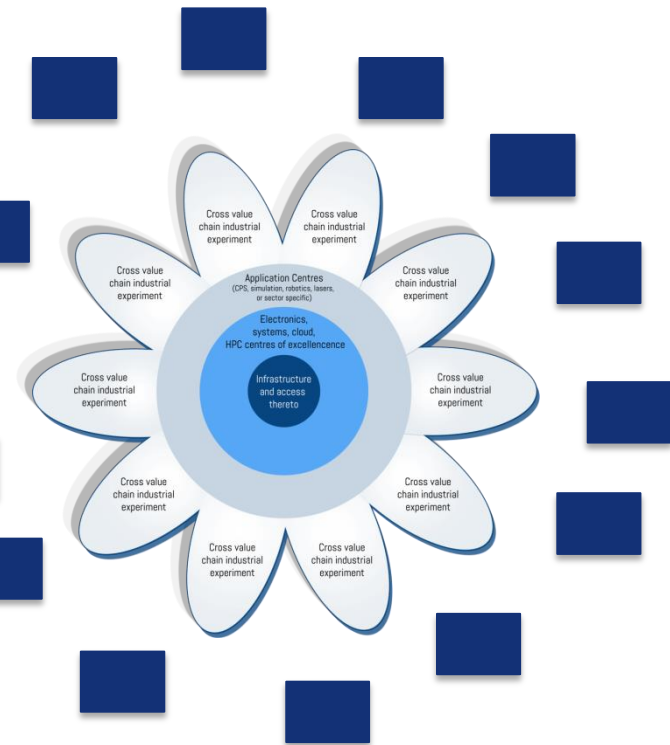
- Funded through regional/structural funds, e.g. ESIF
- Focus on regional strengths/smart specialisation
- Support actions complementary to H2020 actions
- Flexibility/little synchronisation needs

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Regional Nodes/Projects

- Feasibility studies
- Best practice experiments
- Local dissemination
- Skills development
- Infrastructure provisioning

❑ Bootstrap innovation hubs in "non-I4MS regions"

- RTOs, academia

❑ Mechanisms:

1. Call for expression of interest (EoI) for new hubs
2. I4MS competence centres as **mentors** each launch 5 **sponsoring** contracts (30-50k€)

❑ Role of Mentoring & Sponsorship actions

- Investigate digital needs of regional smart specialisation
- Link needs to I4MS projects and competences
- 3 feasibility studies for Best Practice experiments
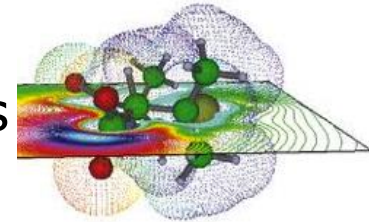- Establish links with local funding bodies

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IA
70%
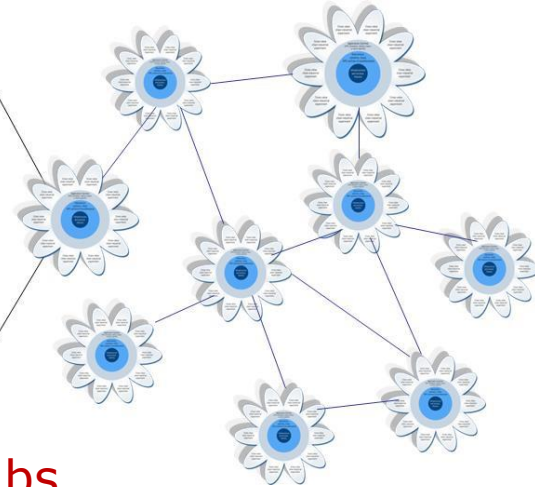
What we ask for : Innovation Actions in one or more of the following areas of technologies

Large projects (5-8 M€)

1. Integration of **CPS and IoT concepts** in smart production environments

2. **Robotics systems** cost effective at lower lot sizes

3. **HPC Cloud**-based modelling, simulation and analytics services focusing on sustained service models and real-time support

4. **Digital design for additive Manufacturing** focusing on link between design tools and production

Budget
32 M€

Budget 1 M€

Coordination and Support Actions

Scope: To advance the I4MS Ecosystem

- Single portal for newcomers
- Sharing of best practices
- Dissemination
- Brokering between users and suppliers
- Identifying new ICT technologies that can benefit from I4MS scheme
- Levering further investment
  - mapping and matching competences in and between regions
  - linking up with regional/national initiatives

Innovation Multipliers
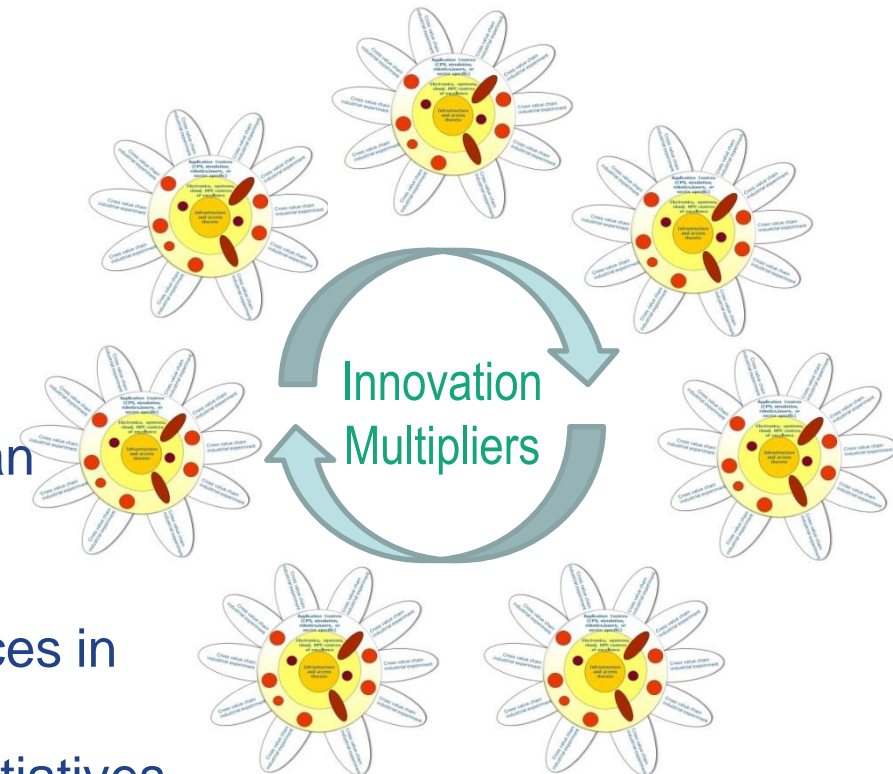
Close cooperation with European Factories of the Future Association (EFFRA)

Address all of the following impact criteria providing metrics to measure success when appropriate:

- Exploration of new application areas for advanced ICT in manufacturing at large, a significant number of new users, in particular SMEs and Mid-caps

- More innovative and competitive technology suppliers, in particular SMEs

- More competitive European service providers through provisioning of new types of services and strengthening the presence on local markets

- Creation of a self-sustainable ecosystem of competence centers, users and suppliers covering a large number of regions and their smart specialisation

- A critical mass of pan European experiments covering the whole value chain to demonstrate innovative and sustainable business models

- Proposals shall clearly detail the objectives and results to be obtained from the financial support to third parties, and include at least:
  - A closed list of the different types of activities supported
  - Persons or categories of persons supported
  - Criteria for award of support
  - How to calculate the exact amount of support (for instance 70% of total costs)
  - Maximum amount of support for each party (typically 20-100K€ per party. If more than 60K€ is necessary, this needs to be explained in the proposal).

  Winners of the open call will become third parties, and not beneficiaries of the project!

European
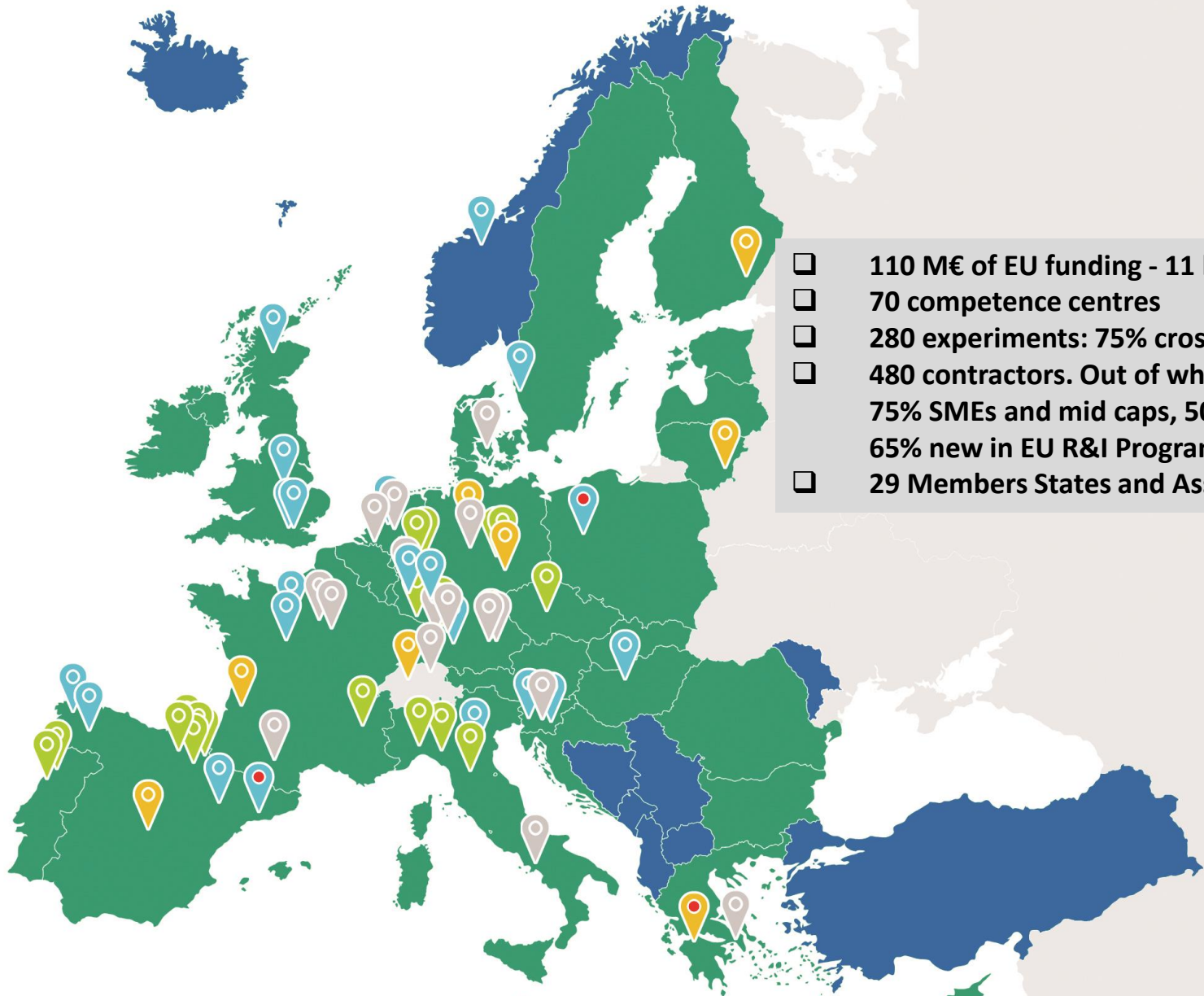
- ☐ **110 M€ of EU funding - 11 large projects**
- ☐ **70 competence centres**
- ☐ **280 experiments: 75% cross-border dimension**
- ☐ **480 contractors. Out of which 340 industrial:**
  75% SMEs and mid caps, 50% users,
  65% new in EU R&I Programmes
- ☐ **29 Members States and Ass. Countries**

1.2 Mn EUR to be assigned to most promising regional DIHs for developing their business case

36 proposals have been received and are under evaluation

• **CPS/IoT: 22 proposals**

• **HPC cloud modelling and simulation: 6 proposals**

• **Industrial Robotics: 7 proposals**

• **Advanced Laser solutions: 1 proposal**

Commissariat à l'Energie Atomique et aux Energies Alternatives	CPS/IoT
Commissariat à l'Energie Atomique et aux Energies Alternatives	Robotics
CETIM Centre Technique des Industries Mécaniques	Robotics
National Center for Scientific Research	Robotics
Bull Sas	Simulation
GENCI	Simulation
ALPhANOV	Laser

I4MS Website: www.i4ms.eu

I4MS brochure:
http://ec.europa.eu/information_society/newsroom/image/document/2016-28/i4ms_2016_brochure_16580.pdf

I4MS workshop in Amsterdam 22 and 23 June 2016:
Fostering digital industrial innovation in Europe
http://i4ms.eu/videos/video.php?id=-1&type=a

Digitising European Industry:
http://ec.europa.eu/digital-agenda/en/digitising-european-industry

Factories of the Future (FoF) on the web:
https://ec.europa.eu/digital-agenda/en/factories-future

ICT Proposers' day, Bratislava, 26 and 27 September
https://ec.europa.eu/digital-single-market/en/ict-proposers-day-2016