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

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

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Direct Contribution to FoF PPP (driven by EFFRA Roadmap)
Indirect Contribution to SPIRE PPP
Towards a Digitising European Industry strategy

1. Develop Digital Innovation Hubs
2. Leadership in digital platforms for industry
3. Closing the digital skills gap
4. Framework conditions for smart industry

FOF 12 - ICT Innovation for Manufacturing SMEs (I4MS) – Phase 3

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

• Call deadline: 19 January 2017

www.i4ms.eu
Objective:
Enhancing digital transformation in Manufacturing SMEs and mid-caps

I4MS is part of the Factories of the Future PPP

Phase 1 + 2: 75 + 35 M€ of EU funding
7 + 4 large projects
40 + 30 competence centres
140 + 80 experiments
22 Members States and Ass. Countries

Focus on 4 areas of ICT adoption in the FoF:
- HPC cloud-based modelling, simulation and analytics services
- Industrial robotics systems
- Laser-based manufacturing
- Smart sensors systems, CPS and IoT
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
Critical Mass of Cross-Border Application Experiments

- 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.
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 ecosystem. 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.
Dynamic and organic growth of Europe-wide innovation ecosystems

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
Mechanism used in I4MS

- 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
Open call: Part K of the General Annexes & Article 15 of MGA

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

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

**Large projects (5-8 M€)**

**Budget**

**32 M€**
What we ask for: Coordination and Support Action

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

Budget: 1 M€

Close cooperation with European Factories of the Future Association (EFFRA)
Expected Impacts:

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
THANK YOU!

Digitising European Industry:

Horizon 2020 on the web:
http://ec.europa.eu/research/horizon2020/index_en.cfm

Factories of the Future (FoF) on the web:

ICT Innovation for Manufacturing SMEs: i4ms.eu

Structural Funds 2014-2020 and Smart Specialisation:
http://ec.europa.eu/regional_policy/index_en.cfm