H2020 INFO DAY on ICT 1, FOF 11, ICT 4, FOF 12 & FOF 13:
SMART CYBER-PHYSICAL SYSTEMS, DIGITAL AUTOMATION, SMART ANYTHING EVERYWHERE, ICT INNOVATION FOR MANUFACTURING SMES INITIATIVES and PHOTONICS LASER-BASED PRODUCTION

1/12/2015

Brussels, Breydel, room AUDIT

The objective of the day will be to inform the participants about the H2020 calls on Smart Cyber-Physical Systems (ICT 1), Digital Automation (FOF 11), Smart Anything Everywhere initiative (ICT 4), ICT Innovation for Manufacturing SMEs I4MS (FOF 12) and Photonics Laser-based Production (FoF 13). Participants will get the occasion to present their proposal ideas for these topics and to network with other participants. In addition it will be possible to ask questions to Commission staff related to proposal ideas.

Smart Cyber-Physical Systems

The importance of the areas of the often time- and safety-critical embedded and cyber-physical systems (CPS) will continue to grow with the increasing pervasiveness of ICT and the development of the Internet of Things. The challenge is to design, programme and implement highly distributed and connected digital technologies that are embedded in a multitude of increasingly autonomous physical systems with various dynamics and satisfying multiple critical constraints including safety, security, power efficiency, high performance, size and cost. Such combination of several cyber-physical systems in "system of systems" gives rise to unpredictable behaviour and emergent properties. A significant improvement in design and programming of CPS is therefore needed including a "science of system integration". This session will discuss the open call (ICT1 2016) in this area. More background information and previous projects in this area are available here: https://ec.europa.eu/digital-agenda/en/cyberphysical-systems-0

Digital Automation

Manufacturing value chains are distributed and dependent on complex information and material flow requiring new approaches inside and outside the factory both on process and product lifecycle level, from design and engineering over production to maintenance and recycling. Global competition and individualized products make it difficult for manufacturing companies to share information, to produce in collaborative networks across value chains. This topic focusses on (1) collaborative manufacturing and logistics and on (2) novel architectures for factory automation based on CPS and IoT. In order to increase impact of the programme, proposals under this topic are requested to develop reference implementations of platforms in a multi-sided market ecosystem and include user-driven proof-of-concept demonstrations and validation in several different scenarios. Proposals should contain an outline business case and industrial exploitation strategy. This session will discuss the open call (FoF11 2016) in this area.

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Smart Anything Everywhere

"Smart anything everywhere" stands for the next wave of products that integrate digital technology inside. A major challenge is to accelerate the design, development and uptake of advanced digital technologies by European industry, especially among them many SMEs and mid-caps in products that include innovative electronic components, software and systems. This session will discuss the open call (ICT4 2017) in this area which address the 2nd wave of the SAE innitiative. The current projects funded in the context of this initiative may be found on http://www.smartanythingeverywhere.eu/

ICT Innovation for Manufacturing SMEs (I4MS)

I4MS (ICT Innovation for Manufacturing SMEs) is the initiative promoted by the EC to support the European leadership in manufacturing through the adoption of ICT technologies. In fact, Europe's competiveness in that sector depends on its capacity to deliver highly innovative products, where the innovation often originates from advances in ICT. This session will discuss the open call (FoF12 2017) in this area which address the 3rd wave of the I4MS initiative. The current projects funded in the context of I4MS may be found on www.i4ms.eu

Photonics Laser-based Production

Laser-based manufacturing has become very competitive and is one of the back-bones of modern production technologies. Highly accurate mass production is available for a wide range of products in a wide range of industries. Whilst laser processing is highly flexible, the change from one production lot to the next usually requires operator intervention, reconfigurations and costly down times to adjust current processing tools to the new task. The trend to individualisation requires a high degree of digitization as well as tools and systems which are highly autonomous and automated to reduce production time and costs.

Additive manufacturing (AM) offers a number of advantages over conventional manufacturing including the unprecedented freedom of design for example in terms of geometry, material composition and intrinsic properties of the work piece. Whilst laser-based AM is used for prototyping and has begun to penetrate some smaller markets, it is not yet competitive on a larger scale especially with respect to production speed and costs. In order to increase the productivity of laser-based AM and to bring it a significant step further towards industrial manufacturing a better mastering of all stages of the process chain and their interaction is necessary.

This session will discuss the open call (FoF13 2016) in this area. Photonics projects funded in the context of FoF and lasers may be found here: FP7 and H2020.

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08.00 Registration:
Continuous registration to the different sessions through the day until 16.45

08.30 Session 1: General information & Setting the scene

08.30 H2020 – how to prepare and submit a proposal (Francisco Guirao, EC)

09.00 Idealist - Service to find partners for your proposals

09.05 How to achieve impact with your project: Best practices from a project

09.15 Setting the scene - Digitising European Industry (Max Lemke, EC)

09.35 Q&As

09.45 Session 2: ICT-1-2016 Smart Cyber-Physical Systems

09.45 Smart Cyber-Physical Systems open call (Werner Steinhögl, EC)

10.15 Presentation of a CPS roadmap

10.30 Proposals' ideas and competencies presentations:

Participants can send a proposal idea and have a 2 minute pitch to present it to the audience (3 slides max).

11.30 Coffee Break

12.00 Session 3: ICT-4-2017 & FOF-12-2017 Smart Anything Everywhere & ICT Innovation for Manufacturing SMEs (I4MS):

12:00 Smart Anything Everywhere Initiative (SAE) and forthcoming call (Jerome Dethier, EC)

12.15 Presentation of a vision for Smart Anything Everywhere

12:25 ICT Innovation for Manufacturing SMEs initiative (I4MS) and forthcoming call (Francesca Flamigni, EC)

12.40 Presentation of XS2I4MS / I4MS-Growth support actions

13.00 Q&As

In parallel: 09.45 - 13.30 Q&As corner on FOF-11-2016, ICT-1-2016, ICT-4-2017 and FOF-12-2017

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13.30 Networking Lunch

14.20 Session 4: FOF-11-2016 Digital Automation

14.20 Digital Automation open call (Anne-Marie Sassen, EC)

14.40 Presentation of a FoF roadmap

14.55 EFFRA Innovation Portal

15.10 Report on workshop "Platforms for connected Factories of the Future" (5-6/10/15) (Clemens Zielonka, EC)

15.25 Proposals' ideas:

Participants can send a proposal idea and have a 2 minute pitch to present it to the audience (3 slides max)

16.25 Coffee break

16.45 Session 5: FOF-13-2016 Photonics laser based production

16.45 Photonics laser based production open call (Christoph Helmrath, EC)

17.00 Proposals' ideas:

Participants can send a proposal idea and have a 2 minute pitch to present it to the audience (3 slides max)

In parallel: 14.20 – 18.00 Q&As corner on all presented topics

18.00 End of info day

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