28 Novembre 2017

GDL MESAP Smart Systems Integration

MESAP
Innovation Cluster for Smart
Products and Manufacturing

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Agenda

AGENDA COMPLETA

Ore **15.00 - 15:05** Saluti di Benvenuto

Ore **15:05 - 15:30** Gli ultimi aggiornamenti tecnologici da EPoSS
- Presentazione Groppo agenda Trasporti in SRA EPoSS
- Presentazione Ricatto agenda Manufacturing in SRA EPoSS

Ore **15:30 - 16:30** Validazione della strategia di marketing degli Smart Systems attraverso l'uso del trademark che MESAP gestisce per EPoSS: presentazione, benefici, feedback.
Coffee
Ore **16:30 - 16:45** Raccolta competenze, tecnologie, eventuali tematiche progettuali dei partecipanti

Ore **16:45 - 17:00** Presentazione Call ICT 2018-2020 relative alle tematiche della Smart Systems Integration e tecnologie collegate

Ore **17:00 - 17:30** Presentazione idee progettuali alla ricerca di partner (ICT Proposers' Day 2017)

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28 Novembre 2017

GDL SSI – Call H2020 2018-20

MESAP
Innovation Cluster for Smart
Products and Manufacturing

Roberto Caminiti

Agenda

Gruppo di Lavoro SSI (Smart System Integration) — 28 novembre 2017 - 15:00 - 17:30

16:30-16:45 Raccolta competenze, tecnologie, eventuali tematiche progettuali dei partecipanti
16:45-17:00 Presentazione **call ICT 2018-2020** relative alle tematiche della Smart Systems Integration
e tecnologie collegate

ICT-01-2019: Computing technologies and engineering methods for cyber-physical systems of systems

ICT-02-2018: Flexible and Wearable Electronics

ICT-03-2018-2019: Photonics Manufacturing Pilot Lines for Photonic Components and Devices

ICT-04-2018: Photonics based manufacturing, access to photonics, datacom photonics and connected lighting

ICT-07-2018: Electronic Smart Systems (ESS)

ICT-09-2019-2020: Robotics in Application Areas

ICT-10-2019-2020: Robotics Core Technology

ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-12-2018-2020: Big Data technologies and extreme-scale analytics

DT-ICT-01-2019: Smart Anything Everywhere

17:00-17:30 Presentazione idee progettuali alla ricerca di partner (ICT Proposers' Day 2017)

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Call e Tematiche

Work Programme 2018 - 2020 Information and Communication Technologies

1. **Call Information & Communication Technologies**
2. **Call Digitising & transforming European industry & services: digital innovation hubs & platforms**
3. **Call Cybersecurity**

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1 - Call Information & Communication Technologies

1.1 Technologies for Digitising European Industry

1.2 European Data Infrastructure: HPC, Big Data and Cloud technologies

1.3 5G

1.4 Next Generation Internet

1.5 Cross-cutting activities

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1.1 Technologies for Digitising European Industry – 2018

ICT-02 Flexible and Wearable Electronics (RIA)

   Budget: **30 M€**

ICT-03 Photonics Manufacturing Pilot Lines for Photonic Components & Devices(IA)

   Budget: **30 M€**

ICT-04 Photonics based manufacturing, access to photonics, datacom photonics and connected lighting (RIA + IA)

   Budget: **30 + 25 M€**

ICT-07 Electronic Smart Systems (ESS) (CSA + RIA +IA)

   Budget: **39 + 8 M€**

Valutazione: Call aperta - Deadline **17/04/18**

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1.1 Technologies for Digitising European Industry – 2019

ICT-01-2019: Computing technologies and engineering methods for cyber-physical systems of systems   (RIA)

    Budget: **38 M€**

ICT-09-2019-2020: Robotics in Application Areas (RIA+IA)

    Budget: **20 + 28 M€**

ICT-10-2019-2020: Robotics Core Technology   (RIA)

    Budget: **42 M€**

Valutazione: Apertura Call **16/10/18** - Deadline **28/03/19**

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1.2 European Data Infrastructure: HPC, Big Data and Cloud technologies

ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications   (IA)

Budget: **50 M€**

ICT-12-2018-2020: Big Data technologies and extreme-scale analytics (RIA)

Budget: **30 M€**

Valutazione: Call aperta - Deadline **17/04/18**

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ICT-02 Flexible and Wearable Electronics (RIA)

ICT-02-2018 (Flexible and Wearable Electronics)
The Challenge

Challenge

- Large area processes →

  lightweight, flexible, printed multi-functional electronic products

- Pushing technology barriers

- Open new opportunities in existing and emerging markets

ICT Proposers days, Budapest, 9-Nov-17

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ICT-02 Flexible and Wearable Electronics (RIA)

ICT-02-2018 (Flexible and Wearable Electronics)
The Scope

Scope

- **Enhancing manufacturability**   `TRL 4`

  Combine Organic/printed electronics and large area deposition technologies

  → Multi-functional components

  → Equipment and processes for:
    Large scale fabrication, Mass-customisation, Characterisation

- **Integration technologies**   `TRL 4-5`

  New concepts for the Integration of: Transducers, Energy storage, Data storage, Logic, Displays, Light sources, Interconnect

- **Device demonstration**

  Prototype validation in specific applications

    - Integration of electronic devices in wearables /portable setting (Textiles, flexible/streatchable substrates
    - Compatibility with low-cost manufacturing, Efficient energy scavenging and storage   `TRL 4-5`
    - Functional performance, Durability and reliability
    - Privacy, Security, Liability and free flow of data, Recyclability, waste management

ICT Proposers days, Budapest, 9-Nov-17

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ICT-02 Flexible and Wearable Electronics (RIA)

ICT-02-2018 (Flexible and Wearable Electronics)
Expected Impact & Instrument

Expected Impact

Tech-R&D

- Technology leaps in performance:
  - Functionalities, autonomy, reliability, manufacturability, cost
    - → European leadership in Large Area, flexible and wearable electronics
- Increased R&D cooperation in technology device development and related manufacturing process

New Opportunities (products-sectors)

- Emergence of new products (combining printed and large area processed electronics)
- New opportunities in new sectors, for new actors (eg designers, artists..)

Economy-Finances

- More manufacturing capabilities in Europe
- More industrial investments in flexible and wearable electronics

Instrument

Research and Innovation Actions (RIA)

30 M€ - 100% funding

Submission deadline: 17-April-2018

ICT Proposers days, Budapest, 9-Nov-17

ICT-03 Photonics Manufacturing Pilot Lines for Photonic Components & Devices (IA)

The aim is to accelerate the design, development and uptake of photonics technology, by a wide range of industrial players, in particular SMEs by providing low-barrier access to volume production of advanced photonics components available to a wide range of industrial players, in particular SMEs which would otherwise not have easy access.

The focus is on **Manufacturing Pilot Lines**:

- actions should provide **open access to manufacturing of advanced photonics components and systems** and offer related services including design and characterization
- should cover **all stages of manufacturing** through to **testing**, provide a low entry barrier access to low and medium production volumes and the processes used should be scalable to high production volumes
- should include a **validation of the pilot line offer** with involvement of **externals users** in pre-commercial production runs
- Activities should aim at **long-term sustainability**, including development of or integration into **photonics innovation hubs**
- should make use of **existing infrastructure** and develop close links with **on-going European and national initiatives** in order to maximise impact
- Proposals must present industrially **relevant business cases** for the manufacturing pilot line, a **plan for long-term sustainability** and a **credible strategy for future high volume productio**n in Europe at competitive cost

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ICT-03 Photonics Manufacturing Pilot Lines for Photonic Components & Devices (IA)

Actions must address one or more of the following technologies.

- **Indium Phosphide** (2018 call): providing open access to photonics integrated circuits based on Indium Phosphide, going beyond multi-project wafers and offering generic solutions for a wide class of applications.
- **Silicon Photonics** (2018 call): providing open access to photonics integrated circuits based on Silicon Photonics, going beyond multi-project wafers and offering generic solutions for a wide class of applications.

- At least **one proposal will be selected** to cover each of these technologies.
- **contribution from the EU between EUR 8 and 15 millions**

Impact:

- Improve significantly the uptake of photonics technology by end-user industry, in particular SMEs, enabling a demonstrably more competitive European industry.
- Greatly accelerate the time to market.
- Create sustainable manufacturing capability in Europe.

Valutazione: Call aperta - Deadline **17/04/18**   Budget: **30 M€**

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ICT-04 Photonics based manufacturing, access to photonics, datacom photonics and connected lighting (RIA + IA)

The challenge is to reinforce the innovation ecosystem by providing access to advanced photonics technology to researchers and thereby accelerating the deployment of the next generation of disruptive photonics technologies

The challenge is to build capabilities for automated mass manufacturing of datacom photonics in Europe.

LED/OLED lighting is now becoming the dominant lighting technology and the market focus is shifting from energy efficiency to additional smart features. The challenge is the integration of lighting with the Internet of Things, offering new functionalities beyond illumination.

The development and application of innovative photonics based manufacturing solutions will open new ways of producing more goods with fewer raw materials, less energy and less waste.

The challenge is to develop systems which deliver improved accuracy, power and control and which will enable the next generation of manufacturing in a range of industrial sectors.

Valutazione: Call aperta - Deadline **17/04/18**

Budget: **30+25 M€**

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ICT-04 Photonics based manufacturing, access to photonics, datacom photonics and connected lighting (RIA)

Research and Innovation Actions

i. Highly Productive Ultra-Short Laser Systems for Fast Materials Processing: the development of ultra-short pulse laser systems with pulse durations in the nanosecond regime down to the femtosecond regime and with average beam power levels of at least 1kW enabling fast materials processing with minimal heat impact on the work piece. Pulse energies and wavelengths must be appropriate for the intended application. Proposals may include also the related monitoring and closed loop control aspects. The developed system should be demonstrated with a relevant industrial application.

ii. Tailored Laser Beams for Laser-based Manufacturing: new methods and schemes of beam shaping providing the optimal energy delivery on the work piece with a high spatial and temporal resolution. Proposals may include also the related monitoring and closed loop control aspects. The developed system should be demonstrated with a relevant industrial application.

Expected Impact
i. Strengthening industrial manufacturing based on **ultra-short pulse lasers and extending its field of applications by simultaneous improvement of precision and productivity;** significant contribution to the digitization of European industry.
ii. Substantial **contribution to digital photonic production** with increased **productivity, flexibility and customized products** ("first time right") at significantly reduced costs.

contribution from the EU between EUR 3 and 6 million

Valutazione: Call aperta - Deadline **17/04/18**   Budget: **30 M€**

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ICT-04 Photonics based manufacturing, access to photonics, datacom photonics and connected lighting (IA)

Innovation Actions

i. Access to advanced photonics for researchers: The objective is provide photonics and non-photonics researchers with a one-stop-shop access to a wide range of existing cutting edge technology platforms as well as services needed to facilitate their use (such as design, measurement and packaging).

ii. Enabling automated mass-manufacturing of datacom photonics products: Actions should demonstrate automated manufacturing of optical transceivers with transfer rates above 1Tb/s at competitive costs according to the interconnection distance. Actions should cover all manufacturing steps of proven designs from chip manufacturing to photonic/electronic integration through to packaging and testing, and final demonstration in a real environment. Standardisation should be addressed.

iii. Connected Lighting: The action should focus on integrating lighting infrastructure with the Internet of Things and demonstrating new functionalities such as visible light communication for indoor positioning and broadband data communication. Development and integration of new technologies as security and multicast communication into open architectures must be demonstrated in real environments. Standardisation of a reference architecture must be one of the main goals of the action.

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ICT-04 Photonics based manufacturing, access to photonics, datacom photonics and connected lighting (IA)

Expected Impact:

Proposals should describe how the proposed work will contribute to the listed corresponding expected impacts and include baseline, targets and metrics to measure impact.

a) Innovation Actions

i. A strengthening European innovation ecosystem and improved **cross fertilisation** between photonics and other technology areas.

ii. **Reduced manufacturing cost** of PIC-based optical transceivers with transfer rates above 1Tb/s enabling massive deployment in datacenter environments (<1€/Gbps between racks and <0.1€/Gbps inside racks).

iii. European industrial leadership in a wide range of photonic applications and technologies enabling **penetration of new markets** as well as for established telecom and datacom applications. **Demonstrable performance advantages in terms of sensitivity, speed, energy efficiency and robustness.**

Maximum **one proposal will be selected to cover each of the themes i and iii**.
contribution from the EU **between EUR 3 and 6 million**

Valutazione: Call aperta - Deadline **17/04/18**   Budget: **25 M€**

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ICT-07-2018: Electronic Smart Systems (ESS)

Electronic Smart Systems (ESS)
ICT-07-2018

The Challenge

- Develop a new generation of multi-functional ESS technologies

    Hardware integration of Sensing, actuating, processing, wireless transmission

- Validation of ESS technologies, via application demonstrators

The Instruments and €

- Research and Innovation Actions (RIA)	39 M€ - 100% funding
- Innovation Actions (IA)	8 M€ - 70% funding
- Coordination and Support Actions (CSA)	1 M€ - 100% funding

EPoSS'17 – Graz - 18-Oct-17

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ICT-07-2018: Electronic Smart Systems (ESS)

Electronic Smart Systems (ESS)
ICT-07-2018

European Commission

The Scope (RIA)

- Research and Innovation Actions (RIA)

  a - **Technological breakthroughs:**   TRL 4

    miniaturisation
    functionalities
    power consumption, autonomy
    reliability
    secure operation

  Industrial exploitation
  Application perspectives

  b – **Bio-electronics Smart Systems:**   TRL 5

  Cost effective miniaturisation, manufacturing and demonstration:

    specificity/sensitivity
    time to results
    reliability
    manufacturability

  User needs
  Market/business case

submission: 17 April 2018   **39 M€ - 100% funding**

EPoSS'17 – Graz - 18-Oct-17

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ICT-07-2018: Electronic Smart Systems (ESS)

Electronic Smart Systems (ESS)
ICT-07-2018

The Scope (IA and CSA)

- **Innovation Actions (IA)**

  Access to Nanoelectronics and Electronic Smart Systems

  - Access to advance design and manufacturing (academia, research institutes, SMEs)
  - Rapid prototyping production for SMEs and market deployment
  - Technical support and training

  8 M€ - 70% funding

- **Coordination and Support Actions (CSA)**

  - Collaboration between projects/experts in
      Nanoelectronics+ Electronic Smart Systems+ Flexible /wearable electronics
  - Increase outreach
  - International cooperation
  - Technology/development monitoring
  - Roadmapping

  1 M€ - 100% funding

submission: 17 April 2018

EPoSS'17 – Graz - 18-Oct-17

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ICT-07-2018: Electronic Smart Systems (ESS)

Electronic Smart Systems (ESS)
ICT-07-2018

The Expected impact

Technology / R&D

- **Build a European Leadership for system performances**
- **Improved ESS manufacturing capabilities in Europe**
- **Increase cooperation – Promote multi-disciplinary initiatives**

New opportunities (sector, product)

- **New opportunities for digitising in traditional sectors**
- **New users in industry (SMEs, mid-caps) and academia**

Economy/Finances

- **More industrial investments**
- **Increased market penetration for ESS and bio-electronics systems**
- **Increased long-term industrial involvement in R&I**

EPoSS'17 – Graz - 18-Oct-17

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ICT-07-2018: Electronic Smart Systems (ESS)

DT-ICT-01-2019: Smart Anything Everywhere

Challenge
Accelerate design, development and uptake of Digital technologies in products
Components, software and systems
Address sectors where digital technologies are underexploited

Special emphasis on SMEs and Mid-caps

Scope

Area 3: Flexible an Wearable Electronics

Help businesses in further maturing, innovating and validating products
Focus: Access to design, technology and prototyping which are ready to use
          application experiments driven by concrete user requirements and business cases

Expected Impact
(all to be addressed)

- Attract a significant number of new users and more innovative technology supp'
  in particular SMEs and mid-caps.
- Creation of a sustainable network of Digital Innovation Hubs
  - added value to investments done at national and regional level in
    Innovation Hubs.
- Availability of Digital Innovation Hub services across Europe

Instrument

Up to 8M€ (part of 48 € for 4 areas)

Innovation Actions (IA)

Submission deadline: 2-April-2018

www.smartanythingeverywhere.eu

ICT Proposers days, Budapest, 9-Nov-17

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ICT-01-2019: Computing technologies and engineering methods for cyber-physical systems of systems

Specific Challenge:

At system level the challenge is to bring a step change to the engineering techniques supporting the design-operation continuum of dynamic CPSoS and to exploit emerging technologies such as augmented reality and artificial intelligence. At computing level the challenge is to develop radically new solutions overcoming the intrinsic limitations of today's computing system architectures and software design practices.

Scope:

a) Computing software and systems design for physically-entangled systems supporting the creation of reliable, robust and energy-aware solutions for autonomous and safety-critical systems.

b) Models, tools and methods for design-operations continuum of dependable CPSoS supporting the complete lifecycle of Cyber-Physical Systems of Systems (CPSoS), from requirements capture to design, test, operation and decommissioning.

Projects will target **TRLs 2-5**, and will deliver a working prototype tested in at least two different use cases, demonstrating improvement over the state of the art in industrial and professional domains. The Commission considers that proposals requesting a contribution from the EU of between EUR **3** and **5 million** would allow this area to be addressed appropriately.

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ICT-09-2019-2020: Robotics in Application Areas

Specific Challenge:
The purpose of this topic is to address such issues in a modular and open way, and reduce the barriers that prevent a more widespread adoption of robots. Four Priority Areas (PAs) are targeted: healthcare, inspection and maintenance of infrastructure, agri-food, and agile production.

Scope:

a) Research and Innovation boosting promising robotics applications

    The Commission considers that proposals requesting a contribution from the EU between €3 million and €5 million would allow this area to be addressed appropriately.

a) Innovation Actions - Robotics for infrastructure inspection and maintenance

    The Commission considers that proposals requesting a contribution from the EU between €7 million and €9 million would allow this area to be addressed appropriately.

ICT-10-2019-2020: Robotics Core Technology

Specific Challenge:

AI and Cognition: AI provides tools to make systems cognitive. Cognition equips robots with the ability to interact with people and environments, to learn and to categorise, to make decisions and to derive knowledge.

Cognitive Mechatronics: Mechatronic systems where sensing and actuation are closely coupled with cognitive systems are expected to deliver improved control, motion, interaction, adaptation and learning, and safer systems.

Socially cooperative human-robot interaction: Cooperative human-robot interaction is critical in many work environments from collaborative support, e.g. passing tools to a worker, to the design of exo-skeletons able to provide motion that is sympathetic to the user.

Model-based design and configuration tools: Deploying robotics at scale in application areas where tasks need to be defined by the user requires easy-to-use configuration tools. Embedding and sharing of knowledge between tools is essential, as is standardisation across the interfaces to connect systems and modules (taking into account cybersecurity issues, including security by design and data integrity).

Scope:

Proposals should address one of the four core technologies and target the development of core technology modules (modular, open and non-proprietary) and tool kits for use in deployable system platforms that meet the requirements of applications in the following four prioritised application areas: Healthcare, Infrastructure Inspection and Maintenance, Agri-Food and Agile Production.

The Commission considers that proposals requesting a contribution from the EU of between €5 million and €10 million would allow this area to be addressed appropriately.

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

LEIT ICT-11a-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

What are we looking for?

- Large-scale HPC-enabled industrial pilot test-beds supporting BD applications and services
- Combining and/or adapting existing relevant technologies (HPC / BD / cloud) to optimize the specific features of processing very large data sets.
- Strong industrial commitment
- Fostering innovation potential and digitisation on in EU key industrial Sectors: e,g healthcare, manufacturing, energy, etc.
- Budget : €50million

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

LEIT ICT-11a-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

Scope

- **Large-scale HPC-enabled** industrial pilot test-beds supporting **BD applications and services**

- Combining and/or adapting existing relevant technologies (HPC / BD / cloud) **optimize the specific features** of processing very large data sets.

- **Massive** amounts of **diverse types of big data**

- Clearly **demonstration** of **innovation and value creation**.

- Description of the **data assets/standards/ interoperability**

- Simple **secure access** and **secure service provis**ioning of highly **demanding data use cases for industry**, via the **cloud**.

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

LEIT ICT-11a-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

Impact (KPI based)

- Increase innovation and productivity in target sector
- Increase market share of BD technology providers
- Effective integration of HPC/BD/Cloud/IoT technologies in the target sector
- Widening the use of and access to advanced HPC, big data and cloud infrastructures
- Stimulating additional private and public target investments in HPC and BD technologies from industry and MS.

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

LEIT ICT-11a-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

What are we NOT looking for?

- Proposals not including a strong HPC component

- Extensive R&D (this is an Innovation Action/Large scale pilot)

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b (IA)

Large Scale Pilot Actions in data intensive sectors involving key European industrial actors.

Their objective is to demonstrate how industrial sectors will be transformed by putting data technologies (Big Data/Cloud/IoT) at their core.

The industrial pilot test-beds shall also address the relevant networking connectivity and large-scale data collection, management and interoperability issues.

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b (IA)

Possible industrial sectors for Large Scale Pilot actions include (but are not limited to) healthcare, manufacturing, energy, finance & insurance, agri-food, space and security.

Despite the differences it is worth for proposers to take stock of the running 'Lighthouse' projects funded through ICT-15 of the H2020-ICT 2016-2017 Work Programme:

DataBio https://www.databio.eu (2016 Call)
TT https://transformingtransport.eu (2016 Call)
Boost 4.0 (2017 Call)
Bigmedilytics (2017 Call)

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b (IA)

The data assets available to the test-beds to be described in the proposal. The data assets shall be appropriately large, complex and realistic.

Pilot test-beds should also aim to provide, via the cloud, simple secure access and secure service provisioning of highly demanding data use cases for companies and especially SMEs.

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b: Impact

- Demonstrated increase of innovation and productivity in the main target sector of the Large Scale Pilot Action

- Increase of market share of Big Data technology providers if implemented commercially within the main target sector of the Large Scale Pilot Action

- Effective integration of HPC/BD/Cloud/IoT technologies in the main target sector(s) of the Large Scale Action, resulting into integrated value chains and efficient business processes of the participating organizations

- Widening the use of and facilitating the access to advanced HPC, big data and cloud infrastructures stimulating the emergence of the data economy in Europe

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b: Impact

- Stimulating additional private and public target investments in HPC and Big Data technologies from industry, Member States and Associated Countries, and other sources, as referred to in the contractual arrangements of the HPC and/or the Big Data Value Public Private Partnerships.

- **Now explicitly calling for synergies with other innovation programmes and national/regional initiatives for cooperation and co-funding**

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ICT-11b: Requirements

- A **Consortium** where **industrial partners** are represented by professionals who work in **core business operations** (as opposed to research laboratories)

- Develop a plan that is consistent with the business strategy of the industrial partners concerned (**e.g. avoid committing to technologies that the decision makers in the respective companies have no intention of deploying**)

- Innovations developed in the pilot must **work in actual operating conditions** and are consistent with important business parameters such as reliability, accuracy, cost structure.

- To explicitly evaluate/measure **changes** in the cost structure and in the technological constraints and performance (**at the end of the pilot**)

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b: DOs and DON'Ts

- DO NOT mix ICT-15 b) with other ICT Topics or sub-Topics in one single proposal

- No HPC is required for ICT-11b

- DO NOT re-submit ICT-15 Lighthouse project proposals from H2020-ICT 2016-2017 Work Programme

- DO provide detailed information on the IT/Big Data/Cloud platform on which the project will run on

- DO explain <u>how</u> the project will credibly reach the impact goals set in the Work Programme (i.e. it is not sufficient to state 'we will reach the impact goals set in the Work Programme)

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

ICT-11b: DOs and DON'Ts

- DO explain how the private investment of the Consortium partners (additional to the EU funding) is connected to the participation of company X in the project (i.e. generally providing information on company X's investment in R&D does not really address the Work Programme requirement of leveraging the EC investment)

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ICT-11-2018-2019: HPC and Big Data enabled Large-scale Test-beds and Applications

The Call for proposals

ICT-11-2018-2019

- The Call will open on 11/07/2018
- The Call will close on **14/11/2018** at 17:00 CET
- Budget: 40 M€
- Proposals expected average size: 15-18 M€

- Article 30.3 (Commission right to object to transfers or licensing) to be added to all Grant Agreements

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ICT-12-2018-2020: Big Data technologies and extreme-scale analytics

ICT-12a (RIA)

Research and Innovation Actions developing new big data analytics methodologies and engineering solutions addressing industrial and/or societal challenges.

Proposals may cover (but are not limited to): architectures for collecting and managing vast amounts of data; system engineering/tools to contribute to the co-design of secure federated/distributed systems (to involve all stakeholders/technology areas); new methods for extreme-scale analytics, deep analysis, precise predictions and decision making support; novel visualization techniques; standardized interconnection methods for efficient sharing of heterogeneous data pools, seamlessly using distributed tools and services.

ICT-12-2018-2020: Big Data technologies and extreme-scale analytics

ICT-12a (RIA): Requirements

R&D work addressing industrial requirements.

Testing in real world scenarios (i.e. usability, robustness, performance, privacy aware) on real datasets, by professional/domain experts as opposed to researchers or software developers.

Quantifiable progress beyond the state-of-the-art whatever the technical domain chosen – performance measured against industry validated benchmarks.

Proposals must demonstrate that they have access to appropriately large, complex and realistic data sets. From day 1 of the project!

ICT-12-2018-2020: Big Data technologies and extreme-scale analytics

ICT-12a (RIA)

Not in a vacuum!

Success will require not only efficient data processing/management but also sufficient computing capacity and connectivity, a coordinated action with all related areas (e.g. analytics, software engineering, HPC, Cloud technologies, IoT) is necessary and will contribute to a European leadership in these areas.

ICT-12-2018-2020: Big Data technologies and extreme-scale analytics

The Call for proposals

ICT-12-2018-2019

- The Call opened on 31/10/2017
- The Call will close on **17/04/2018** at 17:00 CET
- Budget:
  - **ICT-12a (RIA) 30 M€**
  - **ICT-12b (CSA) 1 M€**
- Proposals expected average size: 3-6 M€ (RIA)
- Proposals expected average size: 1 M€ (RIA)
- Article 30.3 (Commission right to object to transfers or licensing) to be added to all Grant Agreements

2 - Call Digitising & transforming European industry & services: digital innovation hubs & platforms

2.1 Support to Hubs – 2018

DT-ICT-02 Robotics - Digital Innovation Hubs (DIH) (CSA+IA)

DT-ICT-06 Coordination and Support Activities for Digital Innovation Hub network (CSA)

2.2 Platforms and Pilots - 2018

DT-ICT-07 Digital Manufacturing Platforms for Connected Smart Factories (IA)

DT-ICT-10 Interoperable and smart homes and grids (IA)

3 - Call Cybersecurity - 2018

SU-ICT-01 Dynamic countering of cyber-attacks (IA)

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Work Programme 2018 - 2020
Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

1. **Call Foundations of tomorrow industry**
2. **Call Transforming European Industry**
3. **Call Industrial Sustainability**

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DT-NMBP 18-2019 :
Materials, manufacturing processes and devices for organic and large area electronics

Challenge

Advance the technology readiness level of Organic / Large area Electronics

→ to advance its manufacturability

Via: Demonstration of OLAE-enables prototypes in selected applications

Work to cover:

materials, manufacturing processes and devices

Scope

- Material : Electrical performance, Processability and seamless integration Stability, lifetime in operation
- Processes: Seamless integration into traditional/new products

High speed integration processes on flexible substrates

- Prototyping of advanced products

Start TRL 3 Achieve TRL 5

Expected Impact

- New products in flexible and wearable electronics.
- Improvement in cost competitiveness
- Improved stability, mobility, lifetime, processability
- Improved business opportunities and value creation in Europe
- Development of manufacturing capabilities in Europe

The Instrument

20 M€* - 70% funding   * Co-funded by ICT and NMBP programmes

Innovation Actions (IA)   **Deadline for submission (2-step procedure): 22-Jan-2019 and 5-Sept-2019**   ICT Proposers days, Budapest, 9-Nov-17

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Materiale di approfondimento

Presentazioni ICT Proposers' Day
https://ec.europa.eu/digital-single-market/events/cf/ict-proposers-day-2017/programme.cfm

Presentazioni ICT Proposers' Day https://www.smart-systems-integration.org/public/documents/presentations/ict-proposers-day-2017

ICT Workprogramme
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_en.pdf

Materiali GdL SSI
https://www.mesap.it/event/gruppo-lavoro-smart-system-integration/

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