Lo Strumento PMI del Programma H2020

Firenze, 28 febbraio 2017

Antonio Carbone
H2020 NCP
- SME
- Access to finance
- ICT

Ente di ricerca non profit

Nasce come "Task Force" del
Ministero dell'Università e della Ricerca.

+ 25 anni
di esperienza

MISSION

- Promuovere e Supportare la **Partecipazione Italiana** ai programmi europei di ricerca su sviluppo e innovazione
- Migliorare la "**Qualità**" della partecipazione italiana nei programmi europei di ricerca su sviluppo e innovazione.

APRE ospita tutti i National Contact Point H2020 in Italia

[COSA è APRE?]

Servizi APRE

Informazione

Assistenza

Supporto alle attività internazionali

Formazione

Industria 4.0 e Horizon 2020

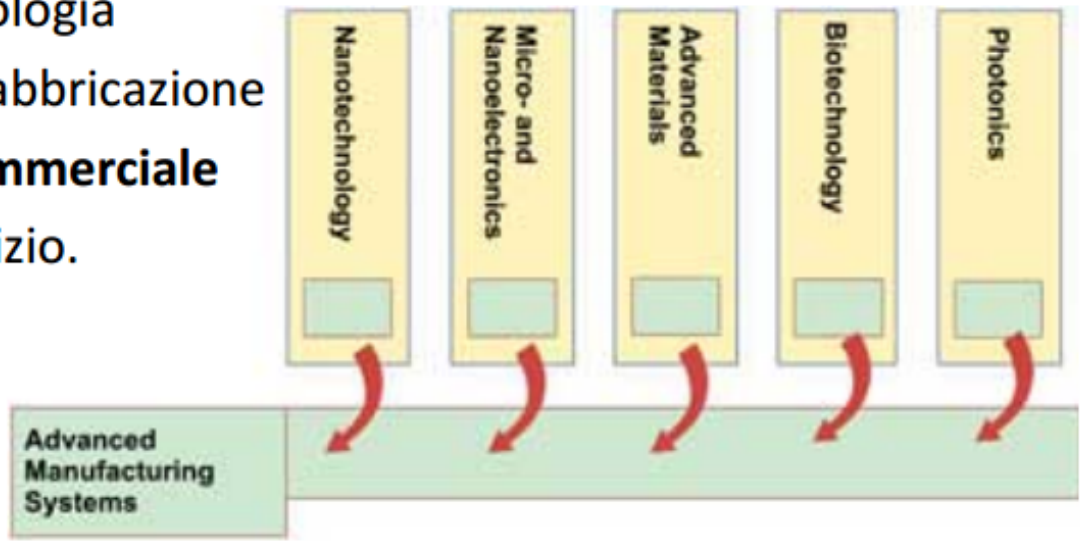
Industria 4.0: Le tecnologie abilitanti

Advanced Manufact. Solutions	• Robot collaborativi interconnessi e rapidamente programmabili
Additive Manufacturing	• Stampanti in 3D connesse a software di sviluppo digitali
Augmented Reality	• Realtà aumentata a supporto dei processi produttivi
Simulation	• Simulazione tra macchine interconnesse per ottimizzare i processi
Horizontal/ Vertical Integration	• Integrazione informazioni lungo la catena del valore dal fornitore al consumatore
Industrial Internet	• Comunicazione multidirezionale tra processi produttivi e prodotti
Cloud	• Gestione di elevate quantità di dati su sistemi aperti
Cyber-security	• Sicurezza durante le operazioni in rete e su sistemi aperti
Big Data and Analytics	• Analisi di un' ampia base dati per ottimizzare prodotti e processi produttivi

Key Enabling Technologies - KET

Definizione della Commissione Europea:

- ✓ Sono tecnologie ad **alta intensità di conoscenza** e associate a elevata intensità di R&S, a **cicli di innovazione rapidi**, a consistenti spese di investimento e a posti di lavoro altamente qualificati.
- ✓ Hanno **rilevanza sistemica** perchè alimentano il valore della catena del sistema produttivo e hanno la capacità di innovare i processi, i prodotti ed i servizi in tutti i settori economici dell'attività umana.
- ✓ Un prodotto basato su una tecnologia abilitante utilizza tecnologie di fabbricazione avanzate e **accresce il valore commerciale e sociale** di un bene o di un servizio.



http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0341:FIN:IT:PDF

Struttura H2020

Excellent Science

- **European Research Council**
  - Frontier research by the best individual teams
- **Future and Emerging Technologies**
  - Collaborative research to open new fields of innovation
- **Marie Skłodowska Curie actions**
  - Opportunities for training and career development
- **Research infrastructures** (including e-infrastructure)
  - Ensuring access to world-class facilities

Industrial Leadership

- **Leadership in enabling and industrial technologies**
  ICT, nanotechnologies, materials, biotechnology, manufacturing, space
- **Access to risk finance**
  - Leveraging private finance and venture capital for research and innovation
- **Innovation in SMEs**
  - Fostering all forms of innovation in all types of SMEs

Societal Challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- Inclusive, innovative and reflective societies
- Security society

Fast track to innovation

European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

EURATOM

Lo Strumento PMI in H2020

Definizione di PMI

La definizione di PMI utilizzata dalla Commissione (da 01/01/2005):

- **Impegnata in una attività economica**
- **< 250 addetti**
- **Fatturato annuo di ≤ € 50 Milioni oppure un bilancio totale di ≤ € 43 Milioni**
- **Autonoma**

SME Questionnaire!!!

Definizione:

http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

Guida alla nuova definizione:
http://ec.europa.eu/enterprise/enterprise_policy/sme_definition/sme_user_guide_it.pdf

Chi valuta SME Instrument?

Organisation Type	Total

100% experience in business/industry

business development, finance, technology

88% work in private for-profit companies

6% investors (BA, VC, institutional investors)

5% other finance

Fase 1: concetto e valutazione della fattibilità

Input:
Idea/Concept in "Business Plan I" (~ 10 pages)

Main Activities:

Feasibility of concept
Risk assessment
IP regime
Partner search
Design study
Pilot application

Output: elaborated "Business plan II"

Lump sum: around 50.000 €

~ 6 months

Fase 2: R&D, dimostrazione, market replication

Input:
"Business plan II" + "Description of activities under Phase 2" (~ 30 pp.)

Main Activities:

Development Prototyping
Testing
Piloting
Miniaturisation
Scaling-up
Market replication

Output: investor-ready

"Business plan III"

0,5-2,5 (5) M€ EC funding

~ 12 to 24 months

Fase 3: Commercializzazione

Input:
"Business plan III"
+

Opportunities:

'Quality label' for successful Phase 1 & 2

Easier access to private finance

Support via networking, training, coaching, information, addressing i.a. IP management, knowledge sharing, dissemination

SME window in the EU financial facilities (debt facility and equity facility)

No direct funding

Coaching

Fase 1 – Esempi di attività

- Feasibility of industrial scale-up
- Go to market strategy and 3-5 years Business Plan
- Product design for xxx application
- Market analysis and customers' survey
- Strategy for the commercialization/Development of an operational plan
- Economic statements
- Operational capacity analysis
- Technical assessment
- Partner search
- Organisational/network /financial feasibility

…

Fase 2 – Esempi di attività

- Project management and coordination
- Dissemination & Exploitation/Commercialization Plan and communication
- Design, building and integration in industrial production/engineering
- Testing and validation
- Performance validation and xxx compliance/Certification
- Specifications and design of Hardware / software
- Optimization and industrial application
- Analysis of developed solution pre commercial strategy

…

Le scadenze SME Instrument 2016-2017

2016	
Fase 1	**Fase 2**
24/02/2016	03/02/2016
03/05/2016	14/04/2016
07/09/2016	15/06/2016
09/11/2016	13/10/2016
2017	
Fase 1	**Fase 2**
15/02/2017	18/01/2017
03/05/2017	06/04/2017
06/09/2017	01/06/2017
08/11/2017	18/10/2017

Valutazione e tempistiche

Criteri di valutazione

1. Excellence

1.1 Objectives
1.2 Relation to the work programme
1.3 Concept and approach
1.4 Ambition

2. Impact

2.1 Expected impact:
- Users/markets
- Company

2.2 Measures to maximize the impact:
- Dissemination and exploitation of results
- Intellectual Property, knowledge protection and regulatory issues

3. Implementation

3.1 Work plan – Work package and deliverable
3.2 Management structure and procedures
3.3 Consortium as a whole (if applicable)
3.4 Resources to be committed

Soglie di finanziamento (Threshold)

Punteggio massimo: 15/15

- **Soglia minima complessiva:**
  - Strumento PMI Fase 1 = 13/15
  - Strumento PMI Fase 2 + FTI = 12/15
  - RIA/IA = 10/15
- **Soglie minime individuali:**
  - Strumento PMI Fase 1 = 4/5 su ogni criterio
  - Strumento PMI Fase 2 + FTI = 4/5 sull'Impatto
  - RIA/IA = 3/5 su ogni criterio

  - L'Excellence ha un peso ponderato maggiore nelle RIA
  - L'Impatto ha un peso ponderato maggiore nello Strumento PMI, FTI, IA

Tempistica Firma Contratto

Fase 1 SME Instrument

3 MESI

2 mesi di valutazione + 1 di firma del contratto

Fase 2 SME Instrument

6 MESI

4 mesi di valutazione + 2 di firma del contratto

Vs 8 mesi (5 + 3) in H2020

Fast Track to Innovation

6 MESI

3 mesi di valutazione + 3 di firma del contratto

I topic SME Instrument 2016-17

TOPIC	BUDGET €	FUNDING RATE FASE 2
SMEInst-01-2016-2017 Open Disruptive Innovation Scheme	€ 60 million 2016 € 66 million 2017	**70%**
SMEInst-02-2016-2017 Accelerating the uptake of nanotechnologies advanced materials or advanced manufacturing and processing technologies by SMEs	€ 31,83 million 2016 € 35,32 million 2017	**70%**
SMEInst-03-2016-2017 Dedicated support to biotechnology SMEs closing the gap from lab to market	€ 7,50 million 2016 € 7,50 million 2017	**70%**
SMEInst-04-2016-2017 Engaging SMEs in space research and development	€ 11,37 million 2016 € 12,60 million 2017	**70%**
SMEInst-05-2016-2017 * Supporting innovative SMEs in the healthcare biotechnology sector	€ 35 million 2016 € 80 million 2017	**100%**
SMEInst-06-2016-2017 Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well	€ 18 million 2016 € 12,50 million 2017	**70%**

SMEInst-07-2016-2017 Stimulating the innovation potential of SMEs for sustainable and competitive agriculture, forestry, agri-food and bio-based sectors	€ 25,81 million 2016 € 38,22 million 2017	**70%**
SMEInst-08-2016-2017 Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth	€ 9,50 million 2016 € 12,4 million 2017	**70%**
SMEInst-09-2016-2017 Stimulating the innovation potential of SMEs for a low carbon and efficient energy system	€ 46 million 2016 € 50 million 2017	**70%**
SMEInst-10-2016-2017 Small business innovation research for Transport and Smart Cities Mobility	€ 57,57 million 2016 € 61,23 million 2017	**70%**
SMEInst-11-2016-2017 Boosting the potential of small businesses in the areas of climate action, environment, resource efficiency and raw materials	€ 25 million 2016 € 36,00 million 2017	**70%**
SMEInst-12-2016-2017 New business models for inclusive, innovative and reflective societies	€ 10,80 million 2016 € 11,40 million 2017	**70%**
SMEInst-13-2016-2017 Engaging SMEs in security research and development	€ 15,37 million 2016 € 14,67 million 2017	**70%**

Link utili

Horizon 2020	http://ec.europa.eu/programmes/horizon2020/
Participant portal	http://ec.europa.eu/research/participants/portal/desktop/en/home.html
EASME	http://ec.europa.eu/easme/sme_en.htm
SME TechWeb	http://sme.cordis.europa.eu/home/index.cfm
Access Eu Finance	http://europa.eu/youreurope/business/funding-grants/access-to-finance/index_it.htm
APRE	http://www.apre.it/
EEN	http://een.ec.europa.eu/

ACCESS4SMES

H2020 Access to Risk Finance and SMEs NCP cooperation Network

Duration	30 months
Starting date	1st September 2016
GA n.	723120
Call	H2020-INNOSUP-2016-2017 For a better innovation support to SMEs
Topic	INNOSUP-06-2016: Capacity-building for National Contact Points (NCPs) for SMEs and Access to Risk Finance under H2020

http://www.access4smes.eu/

GRAZIE PER L'ATTENZIONE!

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National Contact Point

SMEs, ICT &

Access to risk finance

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Industry 4.0 nelle call 2017 di Horizon 2020

INFORMATION AND COMMUNICATION TECHNOLOGIES
Deadline: 25/04/2017

	TOPIC	SCOPE
ICT-05-2017 (CSA)	**Customizsd and low energy computing (including Low power processor technologies)**	RIA:-programming environments and toolboxes for low energy and highly parallel computing;-low power processor technologies. CSA:-structuring and connecting the European academic and industrial research and innovation communities
ICT-17-2017 (RIA)	**Big data PPP: Support, industrial skills, benchmarking and evaluation**	CSA:-Support the community building, the administration and governance of the cPPP;facilitate discussion on relevant topics such as the framework conditions of the data economy; organize events and contribute to synergies;-bsupport the establishment of national centers of excellence in all Member states; RIA:The benchmarking action will identify specific data management and analytics technologies of European significance
ICT-25-2016-2017 (IA/RIA)	**Advanced robot capabilities research and take-up**	RIA-Open, research into novel technical advances in robotics;-Technology research and development in the capabilities systems development, human-robot interaction, mechatronics, perception, navigation and cognition. IA:-Improving the deployment prospects of RAS ;-Filling technology or regulatory gaps

INFORMATION AND COMMUNICATION TECHNOLOGIES
Deadline: 25/04/2017

	TOPIC	SCOPE
ICT-28-2017 (CSA)	**Robotics Competition, coordination and support**	Non-technical barriers to robotics take-up;-Standards and Regulation;-Community support and outreach;-Competitions
ICT-30-2017(CSA/RIA/IA)	**Photonics KET 2017**	RIA:-driven core photonic technology developments for a new generation of photonic devices:-Photonic integrated circuit (PIC) technology;-Disruptive approaches to optical manufacturing;IA:1-Innovation Incubator for SMEs;-Application driven core photonic devices integrated in systems. CSA:-Support the industrial strategy for photonics in Europe
ICT-31-2017 (CSA/RIA/IA)	**Photonics KET 2017**	RIA:- new approaches to scale functional performance of information processing with a focus on ultra-low power and high performance; 3D sequential integration for system solutions;IA:-In Equipment Assessment Experiments; CSA: pan-European challenge event to show the possibilities offered by present hardware technologies
ICT-32-2017 (CSA/RIA/IA)	**Startup Europe for Growth and Innovation Radar**	IA:Reinforcing ICT ecosystems for high growth tech startups interconnecting 3-4 Startup hubs across EU per project;-Facilitating financing for EU investments for high growing startups; CSA: Actions primarily targeted towards technologies developed in EU funded ICT project

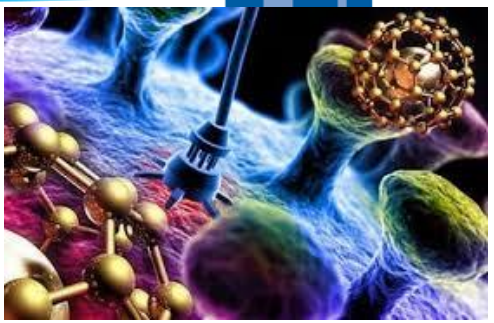
EU-Brazil Joint Call
Deadline: 14/03/2017

	TOPIC	SCOPE
EUB-01-2017 (RIA)	**Cloud Computing**	Development of innovative technologies for next generation cloud infrastructures and services able to cope with the challenges from different application domains in business and societal contexts
EUB-02-2017 (RIA)	**IoT Pilots**	IoT finds applicability in a broad range of industry, business and public services scenarios. Specific focus will be on implementing pilots incorporating the whole value-chain, and involving all relevant stakeholders, in particular end-user
EUB-03-2017 (RIA)	**5G Networks**	to test and validate technologies currently contemplated for early 5G standardisation, primarily at radio access level but with a clear use case focus

www.apre.it

NANOTECHNOLOGIES,ADVANCED MATERIALS,BIOTECHNOLGY AND PRODUCTION

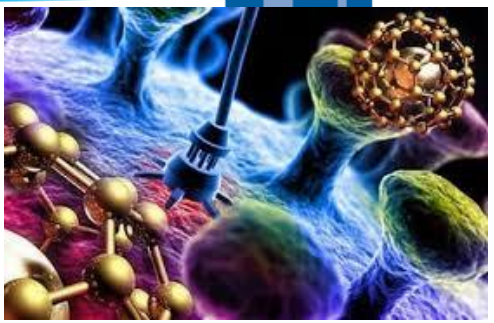
Deadline trascorsa



	TOPIC	SCOPE
NMBP-05-2017 (IA)	Advanced materials and innovative design for improved functionality and aesthetics in high added value consumer goods	The proposed solutions should go well beyond the state of the art and it should be demonstrated that materials with improved durability also fulfil all other properties necessary for the application proposed.
NMBP-07-2017 (RIA)	Systems of materials characterisation for model, product and process optimisation	In the triangle of manufacturing, modelling, and experimentation, the projects should develop an open innovation environment for the optimisation of materials, materials behaviour and/or nano-device manufacturing processes, and for the validation of materials models11 based on experimental characterisation.
NMBP-22-2017 (RIA)	Business models and industrial strategies supporting novel supply chains for innovative product-services	Business models supporting the novel supply chains for innovative product-services would need to facilitate the flow of information on free utilisation capacity among service providers, which could be dedicated business set-ups for that kind of product-services, or just existing manufacturers with free production capacity at certain moments in time and business companies seeking short term solutions for their capacity shortages.
NMBP-25-2017 (IA)	Next generation system integrating tangible and intangible materials model components to support innovation in industry	Establish a web based marketplace linking various activities and databases on models, information on simulation tools, communities, expertise, course materials, lectures, seminars and tutorials for at least two manufacturing sectors of the European industry
BIOTEC-06-2017 (IA)	Optimisation of biocatalysis and downstream processing for the sustainable production of high value-added platform chemicals	Optimise already existing or newly developed platform cell factories for the production of platform and fine chemicals and biofuels (excluding pharmaceuticals), following the cascading use of resources.

NANOTECHNOLOGIES,ADVANCED MATERIALS,BIOTECHNOLGY AND PRODUCTION

Deadline: 19/01/2017



	TOPIC	SCOPE
BIOTEC-08-2017	**Support for enhancing and demonstrating the impact of KET Biotechnology projects**	Cluster existing activities under the KET Biotechnology programme of Horizon 2020 and might also include related prior activities launched under FP7.
NMBP-13-2017	**Cross-cutting KETs for diagnostics at the point-of-care**	The focus is on further development into a clinical setting of novel MNBS platforms, techniques and systems that have already been proven in a laboratory setting (laboratory Proof-of-Concept).
NMBP-16-2017	**Mobilising the European nano-biomedical ecosystem**	Supporting the development of an ecosystem for nanomedicine in Europe
NMBP-34-2017	**Governing innovation of nanotechnology through enhanced societal engagement**	The proposed action should build on previous EU and national projects in the field of public engagement by addressing the governance and implementation of responsible nanotechnology research and innovation.
NMBP-37-2017	**Mapping a path to future supply chains**	This action shoulf draw up a roadmap for supply-chain integration, addressing in particular distributed and customised manufacturing, along with the associated logistics. New supply-chains will be increasingly global
NMBP-38-2017	**Support for the enhancement of the impact of PILOT projects**	The development and work of a EPPN with a clear added value to current H2020 pilot activities. The coordination action shall aim in particular to actively identify best practise on maximising the impact of new and existing pilot line activities in Europe.

EARTH OBSERVATION
Deadline: 01/03/2017

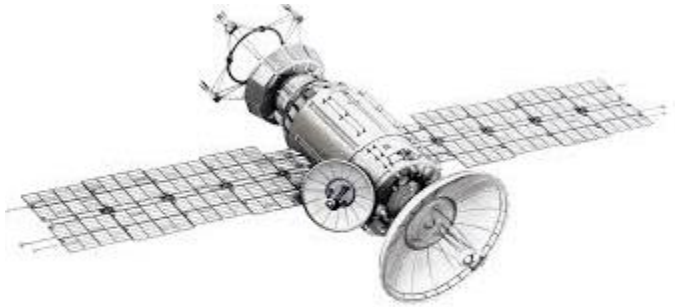
	TOPIC	SCOPE
EO-1-2017 (IA)	**Downstream applications**	Wide variety of applications stemming from the use of Earth observation and its smart integration with other related technologies. Copernicus should be considered as part of the solution which may include other space or non-space inputs.
EO-2-2017 (RIA)	**EO Big Data Shift**	Address the adaptation of big data technologies to Copernicus user scenarios and should concentrate on the intermediate layers describe above. They shall enable Copernicus services, public and intermediate commercial users to engage with and serve their constituency with localised/specialised higher value services.
EO-3-2017 (CSA)	**Preparation for a European capacity to monitor CO2 anthropogenic emissions**	To advance in a coordinated preparation of a mature European capacity there is need to bring together the key European stakeholders and competent entities to get a mature European capacity, thanks to expertise and attention to potential international cooperation opportunities.

EARTH OBSERVATION
Deadline: 01/03/2017

	topic	SCOPE
COMPET-1-2017 (RIA)	**Competitiveness of the European space sector: technology and science**	Research in technologies for European non-dependence and competitiveness has been undertaken within the frame of the Joint EC-ESA-EDA Task Force on Critical Technologies HORIZON 2020 - WP16- 17 Leadership in Enabling and Industrial Technologies – Space for EU non-Dependence, launched in 2008, focusing on those areas that have not so far benefitted from prior Framework Programme funding.
COMPET-2-2017(RIA)	**Competitiveness in Earth observation mission technologies**	Demonstrate, in a relevant environment, technologies, systems and sub-systems for Earth observation. Proposals should address and demonstrate significant improvements in miniaturization, power reduction, efficiency, versatility &/or increased functionality.
COMPET-3-2017 (RIA)	**High speed data chain**	Provide advanced on-board data handling and transfer for Earth observation and Telecommunication systems, management and exploitation in mission ground segment. These activities shall address the future challenge of high data rates transmission and significant improvements in data .
COMPET-4-2017 (RIA)	**Scientific data exploitation**	Exploitation of all available data provided by space missions in their operative, post-operative or data exploitation phase focusing on astrophysics,heliophysics and the Solar System exploration, including the Moon.
COMPET-5-2017(RIA)	**Space Weather**	Exploratory work studying space weather with a view to enhancing the understanding of space weather and its impact. Scope for cooperation with international partners with relevant expertise.
COMPET-6-2017(CSA)	**Space portal**	A space web portal to become the main reference and entry point for EU citizens and professionals interested in space research activities.
COMPET-7-2017 (CSA)	**Technology transfer and business generators**	BICs, as part of their standard offer, routinely offer commercial/high-growth business support to high-tech start-ups

APPLICATIONS IN SATELLITE NAVIGATION GALILEO 2017.
Deadline: 01/03/2017

	TOPIC	SCOPE
GALILEO-1-2017	**EGNSS Transport applications**	Innovative applications, with commercial impact and a clear market uptake perspective
GALILEO-2-2017	**EGNSS mass market applications**	Innovative applications, for further EGNSS in : smart cities, internet of things, Commercial and social LBS
GALILEO-3-2017	**EGNSS professional applications**	Develop innovative applications, on the combination of EGNSS with earth observation and Copernicus services, with commercial impact or with satellite communication.
GALILEO-4-2017	**EGNSS awareness raising and capacity building**	Capacity building, increasing awareness of EGNSS solutions, providing networking opportunities of centres of excellence and other relevant actors.



DIGITAL SECURITY FOCUS AREA

Deadline: 24/08/2017

TOPIC		SCOPE
DS-06-2017 (RIA)	**Cybersecurity PPP: Cryptography**	-Functional encryption solutions that offer more flexibility ;measurement of information leaked;-Internet of Things, Implementation (hardware or software)is often the weak point of the strongest cryptographic protocols;-Authenticated encrypted token research for mobile payment solutions;-innovative cryptographic primitives and complementary non-cryptographic privacy;-New techniques, such as quantum safe cryptography;-Automated proof techniques for cryptographic protocols
DS-07-2017 (RIA/IA)	**Cybersecurity PPP: Addressing Advanced Cyber Security Threats and Threat Actors**	RIA: –development of novel approaches for providing organisations the appropriate situational awareness in relation to cyber security threats allowing them to detect and quickly and effectively respond to sophisticated cyber-attacks. IA:-Proposals should develop innovative simulation environments and training materials to adequately prepare those tasked with defending high-risk organisations to counter advanced cyber-attacks.
DS-08-2017 (IA)	**Cybersecurity PPP: Privacy, Data Protection, Digital Identities**	One of the following strands should be covered:-Privacy-enhancing Technologies (PET);-General Data Protection Regulation in practice;-Secure digital identities.

ENERGY EFFICIENCY
Diverse deadline

	TOPIC	SCOPE
EE-07-2016-2017 (IA)	**Behavioural change toward energy efficiency through ICT**	Development of innovative user-friendly digital tools and applications or services making use of energy end-user generated information or captured from in-home equipment/sensors,in possible combination with intelligent controls and automation, with the purpose to enhance energy efficiency by behavioural change of end-users taking informed decisions.
EE-15-2017 (CSA)	**Increasing capacities for actual implementation of energy efficiency measures in industry and services**	Capacity building programmes for experts carrying out energy audits to ensure that they include the necessary financial and technical data to make informed decisions on implementing the energy saving measures identified; Staff trainings and capacity building programmes to enhance corporate policy towards energy efficiency, energy culture and sustainable supply-chain initiatives.
EE-17-2016-2017 (IA)	**Valorisation of waste heat in industrial systems (SPIRE PPP)**	Improve the energy efficiency of large industrial systems by designing economically viable industrial solutions based on innovative technologies for recovery of waste heat or the innovative adaptation of already existing solutions for waste heat recovery
EE-18-2017 (CSA)	**Energy efficiency of industrial parks through energy cooperation and mutualised energy services**	improve the energy efficiency of industrial parks by unlocking the market potential for energy cooperation and by supporting the demand and offer of mutualised high-quality energy services.
LCE-29-2017 (RIA)	**CCS in industry, including Bio-CCS**	Piloting under realistic conditions is required to lower the energy penalty and capture costs. Projects must include activities to explore local or regional transport and storage needs and solutions

CROSS-CUTTING ACTIVITIES (FOCUS AREAS)

Call - Industry 2020 in the Circular Economy

Diverse deadline

PILOTS

PILOTS-03-2017: Pilot Lines for Manufacturing of Nanotextured surfaces with mechanically enhanced properties

PILOTS-04-2017: Pilot Lines for 3D printed and/or injection moulded polymeric or ceramic microfluidic MEMS

PILOTS-05-2017: Paper-based electronics

FACTORIES OF THE FUTURE - FOF

FOF-06-2017: New product functionalities through advanced surface manufacturing processes for mass production

FOF-07-2017: Integration of unconventional technologies for multi-material processing into manufacturing systems

FOF-08-2017: In-line measurement and control for micro-/nano-enabled high-volume manufacturing for enhanced reliability

FOF-09-2017: Novel design and predictive maintenance technologies for increased operating life of production systems

FOF-10-2017: New technologies and life cycle management for reconfigurable and reusable customised products

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

CROSS-CUTTING ACTIVITIES (FOCUS AREAS)

Diverse deadline

SUSTAINABLE PROCESS INDUSTRIES - SPIRE

SPIRE-07-2017: Integrated approach to process optimisation for raw material resources efficiency, excluding recovery technologies of waste streams

SPIRE-08-2017: Carbon dioxide utilisation to produce added value chemicals

SPIRE-09-2017: Pilot lines based on more flexible and down-scaled high performance processing

SPIRE-10-2017: New electrochemical solutions for industrial processing, which contribute to a reduction of carbon dioxide emissions

SPIRE-11-2017: Support for the enhancement of the impact of SPIRE PPP projects

SPIRE-12-2017: Assessment of standardisation needs and ways to overcome regulatory bottlenecks in the process industry

SPIRE-13-2017: Potential of Industrial Symbiosis in Europe

CIRCULAR ECONOMY

CIRC-02-2016-2017: Water in the context of the circular economy

Call - Internet of Things

IoT-03-2017: R&I on IoT integration and platforms

Link utili

Digital single market	Https://ec.europa.eu/digital-single-market/en/europe-2020-strategy https://ec.europa.eu/digital-single-market/en/digital-single-market
Horizon 2020	http://ec.europa.eu/programmes/horizon2020/
Participant portal	http://ec.europa.eu/research/participants/portal/desktop/en/home.html
Parlamento Ue	http://www.europarl.europa.eu/RegData/etudes/STUD/2016/570007/IPOL_STU(2016)570007_EN.pdf
ECSEL	http://www.ecsel-ju.eu/web/index.php http://www.ricercainternazionale.miur.it/era/jti/ecsel.aspx
MANUNET	http://www.manunet.net/
APRE	http://www.apre.it/ http://www.apre.it/ricerca-europea/horizon-2020/ncp/