

Innovative Beschaffung in Horizont 2020 (PCP, PPI, CSA)

Übersicht der Ausschreibungen in Horizont 2020, Arbeitsprogramm 2016/17

Meta-Arbeitsprogramm

Vorbemerkungen

Dieses Meta-Arbeitsprogramm ist ein Auszug des Arbeitsprogramms 2016/17 für Horizont 2020, dem EU-Rahmenprogramm für Forschung und Innovation. Gegebenenfalls sind die Texte gekürzt. Rechtsgültig ist der Originaltext auf dem Teilnehmerportal der Europäischen Kommission.

Die konkreten Maßnahmen vorkommerzielles Beschaffungswesen (Pre-Commercial Procurement, PCP), öffentliche Beschaffung von Innovation (Public Procurement of Innovation, PPI) sowie die relevanten Koordinierungs- und Unterstützungsmaßnahmen (Coordination and Support Actions, CSA) sind über viele Teile des Programms verteilt. Die einzelnen Maßnahmentypen sind im Anhang detailliert beschrieben. Das Budget der Ausschreibungen bewegt sich in der Regel im einstelligen Millionenbereich und wird meistens auf mehrere Anträge aufgeteilt.

Weitere Maßnahmen des Typs „Public Procurement“ aus dem Arbeitsprogramm sind nicht erfasst, da sie lediglich eine Vergabeform der EU z.B. für Studien darstellen und in der Regel keinen innovativen Aspekt im Sinne der innovativen öffentlichen Beschaffung haben.

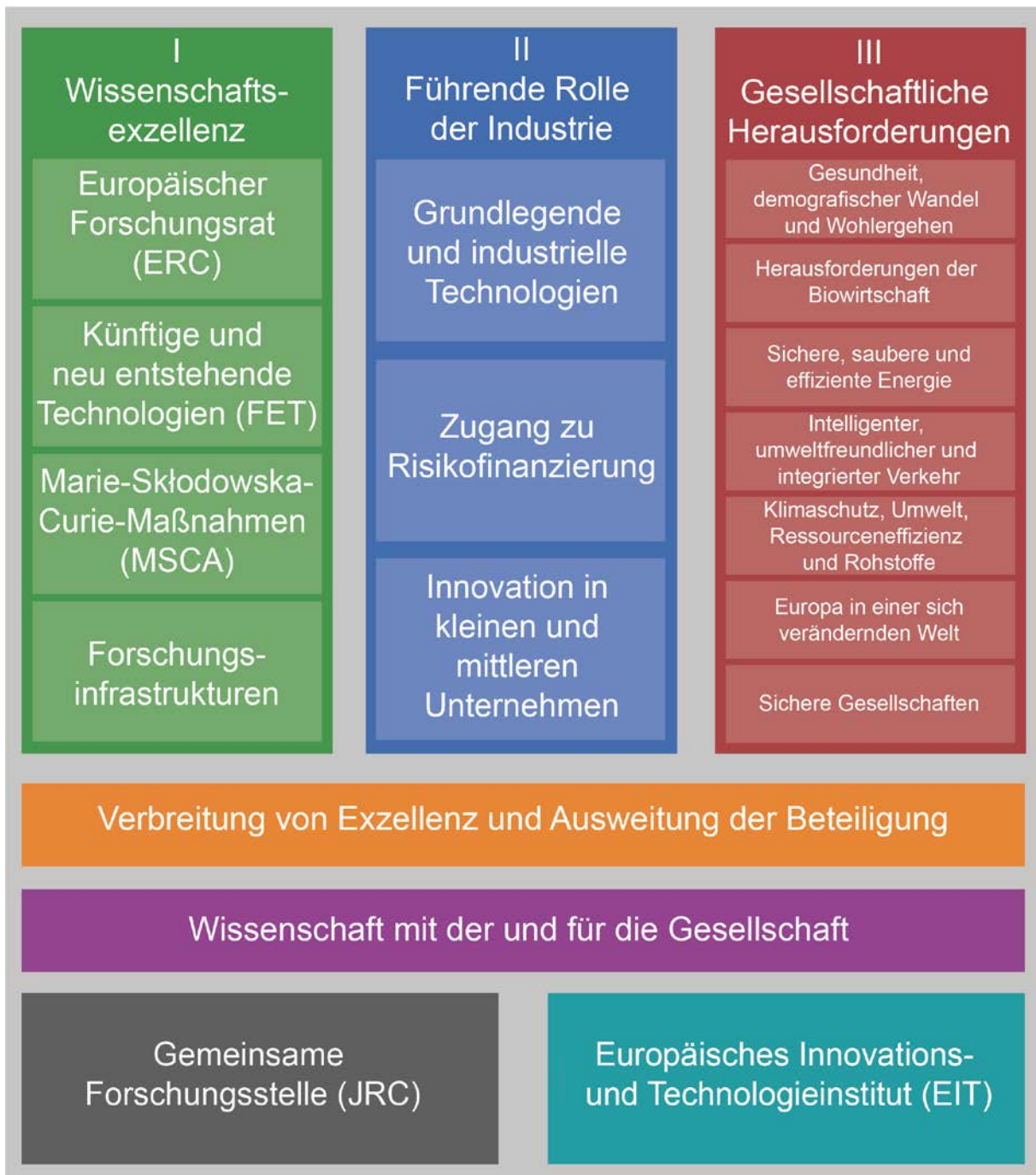
Am 31.08./1.09.2015 fand hierzu in Bonn ein Workshop „„Neue Impulse durch Innovative Öffentliche Beschaffung“ im Rahmen des Bund-Länder-Dialogs zur Stärkung von Synergien zwischen Horizont 2020 und den Europäischen Struktur- und Investitionsfonds (ESIF) statt.

Übersicht der relevanten Ausschreibungen (Calls)

Call	Titel	Maßnahme	Seite
EINFRA-21-2017	Platform-driven e-infrastructure innovation – High Performance Computing	PPI	5
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SC1-PM-13–2016	PPI for deployment and scaling up of ICT solutions for active and healthy ageing – Personalisierte Medizin	PPI	23
SC1-PM-19–2017	PPI for uptake of standards for the exchange of digitalised healthcare records – Methoden und Daten	PPI	25
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SC5-27-2016	Preparing for pre-commercial procurement (PCP) and/or public procurement of innovative solutions (PPI) in support of climate action, environment, resource efficiency and raw materials - Rohstoffe	CSA	33
SEC-02-	Situational awareness systems to support civil protection	CSA	34

Call	Titel	Maß- nahme	Seite
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SEC-04- DRS-2017	Broadband communication systems	PCP	36
SEC-09-FCT- 2017	Toolkits integrating tools and techniques for forensic laboratories	PCP	38
SEC-13- BES-2017	Next generation of information systems to support EU external policies	PCP	39
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Struktur von Horizont 2020



Diese Übersicht zeigt die Verortung der einzelnen Arbeitsprogramme in Horizont 2020.

Die Überschriften der im Folgenden aufgeführten Calls beziehen sich auf diese Arbeitsprogramme.

4. European Research Infrastructures (including e-Infrastructures)

E-Infrastructures

EINFRA-21-2017: Platform-driven e-infrastructure innovation

Specific Challenge: Prepare the capacity required to future generations of e-infrastructure is the key challenge. e-Infrastructure platforms and services need to evolve through innovation actions to respond to the long-term needs of research and education communities (e.g. in case of large RIs entering in functions in a 5 to 10 years' timeframe). Platforms and services are first designed, prototyped and piloted with "supply and demand-side" approaches triggered by to the most demanding cases. The innovative developments bringing state-of the-art technology need to evolve and mature to be integrated and offered as dependable e-infrastructures.

Scope: Proposals will address parts (a) or (b), but not both:

- (a) Support to Public Procurement of innovative HPC systems, PPI (proposals should address all points below):
 - (1) procurement of innovative HPC solutions supporting the deployment in Europe of world-leading HPC capability infrastructure
 - (2) ensuring and reinforcing European access to European leading-edge supercomputing Tier-0 infrastructures and services, by making available a substantial percentage of the new systems to European researchers in the frame of the Pan-European High Performance Computing infrastructure and services (see EINFRA-11-2016)
 - (3) diversify the available leading-class HPC capabilities through a rich set of HPC architectures featuring the most advanced technology made available by R&I (Research and Innovation) in Europe, in order to satisfy the needs of a wider range of users in very different key application areas
 - (4) contribute to the coordination of plans and procurements for the provision of leading-class HPC capabilities at European and national level in view of the implementation the European supercomputing strategy , encompassing funding and technical specifications

Expected Impact: (a) Support to Public Procurement of innovative HPC systems, PPI: This action will contribution to the European HPC strategy through the creation of a European procurement market for the benefit of the HPC actors in Europe (in particular technology suppliers) and catalysing the efforts to vitalise the European HPC ecosystem. It position Europe as a world-class HPC hub with more leading-class HPC computing resources and services available at European level for European academia and industry, independently of the location of users or HPC systems. It will foster adoption and use of innovative world-class HPC solutions featuring the most advanced results of the R&I in Europe, widening the access to more users, in particular for and industry (including SMEs). It will improve effectiveness of public procurement in leading-class HPC systems through joint procurement and pooling of European and national resources, contributing to sustainability. Benefits will also translate in better coordination between demand and supply in the European HPC ecosystem, with improved collaboration of the users and procurers with technology suppliers.

Type of Action: Public Procurement of Innovative solutions (PPI)

Budget 2017: 26 Mio. Euro, Deadline: 20 Sep 2016

Other actions

4. Interactive Computing e-infrastructure for the Human Brain Project FET Flagship (FPA)

Within the Human Brain Project (HBP) Framework Partnership Agreement (FPA) awarded under topic FETFLAG 1 - 2014 of the Call FET Flagships, the selected consortium will be invited to submit a proposal for a Specific Grant Agreement (SGA) that will define and deliver the e-infrastructure providing the interactive computing capacity that the HBP Flagship needs in the context of its large brain simulation activities, as indicated in the HBP FPA.

The proposal will support the Action Plan of the FPA by making available a computing and memory system with an expected peak performance of 50 PetaFlop/s and 20 PetaByte of memory footprint as required for HBP simulations and for an indicative period of five years. The components of the targeted system addressing interactive visualization and steering of large-scale brain simulations and their scalable integration are expected to comply with the capabilities and features defined during the Pre-Commercial Procurement (PCP) of technology readiness demonstration that was launched in the ramp-up phase of the HBP Flagship.

The specifications of the targeted system should also take into account progress in technology and the needs from other scientific communities having similar requirements for data integration (e.g. climate change, geophysics, earth systems, agriculture/meteorology, energy, medicine, etc.) or for close visual monitoring and steering of simulations (e.g. large-scale numerical flow, turbulence, car crash, complete aircraft, evacuation and mass event security, etc.).

The proposal should detail the acquisition process from elicitation of system requirements to system validation and acceptance. It should also explain how potential system suppliers will be consulted, how capacity will be made available to users as well as the financial plan to cover the total cost of ownership.

The proposal should also describe the coordination with the other HBP computing and data storage facilities and the transition from the ramp-up phase main simulations system.

In order to fulfil the HBP mission a programmatic access to 25% of this e-infrastructure capacity must be reserved for the HBP research activities. In addition the related resource allocation model should be explained and include a peer-review process.

The proposal should explain how the novel features and capabilities of this infrastructure will also be made available to the Pan-European High Performance Computing (HPC) Tier-0 infrastructure and services (see EINFRA-11-2016), by guaranteeing at least another 15% of this new capacity to European researchers at large.

This action will contribute to the targeted impacts defined in the action plan of the HBP FPA. It will also contribute to diversify the available leading-class HPC capabilities in the Tier-0 Pan-European HPC infrastructure, and to the adoption and use in Europe of the most advanced HPC technology.

Type of Action: Specific Grant Agreement

6-years Human Brain Project Framework Partnership Agreement with identified beneficiary and specific grants awarded to identified beneficiary for Research and Innovation Action under the Framework Partnership Agreement.

The standard evaluation criteria, thresholds, weighting for award criteria and the maximum rate of co-financing for this type of action are provided in parts D and H of the General Annexes.

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Indicative timetable: First quarter of 2017

Indicative budget: EUR 25.00 million from the 2017 budget

5 i. Information- and Communication Technologies

Robotics and Autonomous Systems

ICT-27-2017: System abilities, SME & benchmarking actions, safety certification

Specific Challenge: Technology capabilities alone are not sufficient to enable future markets development. Robotic technology and systems must be designed, integrated and deployed along functional lines and match much more closely to SME and to general market needs.

Research into promising system abilities such as configurability, adaptability, motion, manipulation, decisional autonomy, dependability, interaction, perception and cognitive ability will play a key role here, as mentioned above.

A key challenge is to revitalise Europe's robot-making capacity. Whilst SMEs are generally regarded as the backbone of EU industry, they are under-contributing to the robotics industry.

There is a requirement to stimulate SMEs in the robotics sector to develop novel and innovative technology that has the potential to open new markets.

Underlying these requirements, is a market-driven need for benchmarks as clear markers of progress for any developer, whether SME or large industry. Benchmarking processes that provide consistency and value to the process of technology validation are lacking currently. Developing benchmarks that can be applied across multiple domains or areas of application allowing technical comparison is a priority.

A further underlying need for the robotics community at large is to ensure the safety and security of their developments. Viable safety certification standards and processes (including testing protocols) are critical to the widespread deployment of robotic systems, but are not yet generally available. Such certification processes should cut across different domains and areas of application and need to be developed on a pan-European basis, but with global impact.

Also the take up of robotics systems by public authorities is a challenge, as there are few if any generalised schemes for public procurement. Smart cities will provide a range of different applications where robotics technology may be able to provide opportunities for enhancing the utilisation of existing general infrastructure, ensuring higher levels of service delivery and addressing demographic change.

Scope: d. Pre-commercial Procurement Actions:

Demand-driven PCP actions will be pursued in the area of smart cities. Actions will aim at but not be limited to one or several of the following topics: waste management, transport (with focus on smart mobility), the provision of city-wide utilities and services, the provision of healthcare, social care and education (including social innovation). Actions will be expected to show how the PCP instrument and procurers will be mobilised to develop new robotics related solutions in a smart cities context.

The Commission considers that PCP proposals requesting a contribution from the EU of between EUR 5 and 7 million would allow this area to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact for PCP:

- Proof-of-concept and validation of robotics technology in the smart city context, to encourage procurement by smart city stakeholders of robotics technology for the benefit of citizens in everyday civic applications.
- New market opportunities for robotics technology suppliers to the smart city sector.
- Inroads into the defragmentation of the market and potential elaboration of standards for public procurement in this domain.

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2017: 7 Mio. Euro, Deadline: 25 Apr 2017

Innovation and Entrepreneurship support

ICT-33-2017: Innovation procurement networks

Specific Challenge: ECB and FP7 impact studies point out that the biggest challenge faced by innovative companies in Europe is not to find funding for R&I but to find a first customer. The challenge is to facilitate access of innovative companies to the market by removing barriers to Pre-Commercial Procurement (PCP) and Public Procurement of Innovative solutions (PPI) in Europe. Cross-border cooperation among procurers and defragmentation of public demand are key in this respect as potential market size is the most important decision factor for firms to participate or not in a public procurement. Speeding up of implementation cycles and further networking of national innovation procurement competence centres are also needed.

Scope: Coordination and Support actions

Proposals should focus on one of the two themes below:

a. The objective is to support the creation of European wide networks of procurers (European Public Procurers networks) that define together an innovation procurement roadmap, identifying shared procurement needs in the near term (relevant for PPI) as well as mid-to-long term (relevant for PCP) in areas of common European interest.

European Public Procurers (EPP) networks are expected to engage into an open dialogue with all potential stakeholders, including other procurers and end-users. EPP networks are encouraged to publish their perceived procurement needs online, in a way that enables the research and innovation community to comment and submit ideas to make suggestions for future PCPs or PPIs. EPP networks

should also undertake activities that investigate the feasibility and facilitate the concrete preparation of a cross-border PCP or PPI for at least one shared common procurement need.

EPP networks should contain a critical mass of public procurers responsible for the acquisition and/or regulatory strategy for innovative solutions in areas of public interest that are large potential customers for ICT LEIT technologies. EPP networks should also undertake dissemination activities to share results and raise awareness about PCP and PPI across Europe.

b. The objective is to support the creation of one EU wide network of national competence centers on innovation procurement (PCP and PPI). Activities undertaken by the network are expected to include the creation of new national innovation competence centers and the enlarging of the scope of existing competence centers. They should also include experience sharing on PCP/PPI implementation across Europe, promoting Horizon 2020 funding and synergies with ESIF funding for PCP and PPI to ICT procurers in cooperation with NCPs, assisting ICT procurers in starting up such procurements nationally and collaborating cross-border to facilitate also transnational joint procurement.

In cooperation with policy makers, the network should also develop and coordinate policy actions to mainstream PCP and PPI across Europe such as setting targets and developing financial incentive schemes for procurers to undertake PCP and PPI.

The network is expected to maximize synergies with national and ESIF funding and focus the budget requested from Horizon 2020 on activities/partners that cannot be funded from ESIF or for which national funding is not available.

The expected duration for the action is 4 years. The minimum participation is 5 existing national innovation procurement competence centers plus 5 public bodies that have the mandate to setup 5 new innovation procurement competence centers (in total from 10 different Member States or associated countries), aiming for EU wide participation of innovation procurement centers in the network by the end of the project.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 2 million would allow these themes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

a. More forward-looking, concerted approach to develop common answers to challenges faced by the public sector in a number of countries. Increased opportunities for the supply side to present the potential of innovative solutions the demand side in order to address concrete public sector challenges. Reduced fragmentation of public sector demand through definition of common specifications and preparation of cross-border procurements.

b. Increased awareness on PCP and PPI among policy makers and procurers. Enhanced capacity of the public sector to carry out PCPs and PPIs. Increased amount of PCPs and PPIs taking place at national and EU level (Horizon 2020 and ESIF funded). Creation of 5 new innovation competence centers and enlarged scope of the support to public procurers provided by 5 existing competence centers, in a way that maximizes synergies with national and ESIF funding.

Type of Action: Coordination and support action (CSA)

Budget 2017: 4 Mio. Euro, Deadline: 25 Apr 2017

ICT-34-2016: Pre-Commercial Procurement open

Specific Challenge: This specific challenge addresses the lack of public demand-driven innovation in Europe needed to close the gap between supply and demand for innovative ICT solutions. It targets consortia of procurers with similar procurement needs of common European interest, to drive innovation from the demand side and reduce fragmentation of public sector demand in Europe. The aim of engaging in such forward looking R&D procurement strategies is to modernize the provision of public services faster whilst creating opportunities for industry and researchers in Europe to take international leadership in new markets.

Scope: PCP Actions

The objective is to bring radical improvements to the quality and efficiency of public services by encouraging the development and validation of breakthrough solutions through Pre-Commercial Procurement. This topic is open to proposals for pre-commercial procurement actions in all areas of public sector interest requiring innovative ICT based solutions. The work will complement PCP Actions foreseen under other challenges in ICT LEIT. It is open both to proposals requiring improvements mainly based on one specific ICT technology field, as well as to proposals requiring end-to-end solutions that need combinations of different ICT technologies.

The Commission considers that proposals requesting a contribution from the EU of up to EUR 4 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Reduced fragmentation of demand for innovative solutions by enabling public procurers to collectively implement PCPs in areas, which due to their nature are better addressed jointly, or which they would not have been able to tackle independently;
- Increased opportunities for wide market uptake and economies of scale for the supply side through the use of joint specifications, wide publication of results and where relevant contribution to standardisation, regulation or certification.

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2016: 4 Mio. Euro, Deadline: 12 Apr 2016

Internet of Things

IoT2 – 2016: IoT Horizontal activities

Specific Challenge: The challenge is to ensure a sound coherence and exchanges between the various activities of the Focus Area, and notably cross fertilisation of the various pilots for

technological and validation issues of common interest across the various use cases. Issues of horizontal nature and topics of common interest, such as privacy, security, user acceptance, standardisation, creativity, societal and ethical aspects, legal issues and international cooperation, need to be coordinated and consolidated across the pilots to maximise the output and to prepare the ground for the next stages of deployment including pre-commercial or joint public procurement. A related challenge is to foster links between communities of IoT users and providers, as well as with Member States' initiatives, and to connect with other initiatives including contractual Public-Private-Partnerships (e.g. in the area of Big Data, Factories of the Future, 5G-infrastructure), Joint Technology Initiatives (e.g. ECSEL), European Innovation Partnerships (e.g. on Smart Cities), other Focus Areas (e.g. on Autonomous transport), and RRI-SSH issues.

A related challenge addresses inter-operability and integration, through open IoT platforms across application areas such as FIWARE, CRYSTAL or SOFIA. It addresses the reference implementation of promising IoT standards serving the interoperability and openness objectives, by consolidating results obtained through standard implementation and pre-normative activities at the platform and/or pilot levels.

Scope: Proposals should cover one of the following set of activities (a or b):

a. Co-ordination of and support to the IoT Focus Area

- Focused Action level coordination ensuring consistent exploitation of the outcomes of the various projects forming the FA: coordination of the projects and related pilot areas through mapping of pilot architecture approaches; interoperability and standards approaches at technical and semantic levels for object connectivity, protocols, data formats, privacy & security, open APIs; exchange on requirements for legal accompanying measures; development of common methodologies and KPI for design, testing and validation and for success and impact measurement; federation of pilot activities and transfer to other pilot areas, facilitating the access for IoT entrepreneurs/API developers/Makers and SME in general. The corresponding activities will be developed and consolidated together with the pilots at FA level, and include where appropriate results from other relevant activities in the Factory, smart city, and vehicle domains.
- Horizontal support: further development and exploitation of security and privacy mechanisms towards best practices and a potential label ("Trusted IoT"); legal support in relation to data ownership and protection, security, liability, sector-specific legislations; contribution to pre-normative activities and to standardization both horizontally and in various application areas, also linked with IoT Governance. The corresponding activities will be developed and addressed in the pilots and consolidated at programme level under this horizontal support activity line. Promotion for sharing of conclusions and road-mapping with similar activities in countries and regions outside Europe, including convergence and interoperability of European and non-European IoT reference architectures/platforms. Exploitation of the combination of ICT & Art for stimulating innovation and acceptance; preparation for the next stages of IoT deployment including through pre-commercial or joint public procurement.

The Commission considers that proposals requesting a contribution from the EU up to EUR 3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not

preclude submission and selection of proposals requesting other amounts. A minimum of one proposal will be funded.

b. RRI-SSH support to IoT

- Pilots shall be citizen-driven, involving existing and local communities at an early stage and addressing a combination of sustainability areas. The corresponding activities should accompany the pilots, analyse societal, ethical and ecological issues related to the pilots, and develop recommendations for tackling IoT adoption barriers including educational needs and skill-building. Consortium participation requires at least two entities from domains different than ICT technologies (e.g. social sciences, psychology, gerontology, economy, art, etc.).

The Commission considers that proposals requesting a contribution from the EU up to EUR 1 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Ensure efficient and innovative IoT take-up in Europe, building on the various parts of the initiative (pilots, research, horizontal actions)
- Efficient information sharing across the programme stakeholders for horizontal issues of common interests
- Extension and consolidation of the EU IoT community, including start-ups and SMEs
- Validation of technologies deployment, replicability towards operational deployment
- Validation in usage context of most promising standards and gap identification
- Strengthening of the role of EU on the global IoT scene, in particular in terms of access to foreign markets.

Type of Action: Coordination and support action (CSA)

Budget 2016: 4 Mio. Euro, Deadline: 12 Apr 2016

5 ii. Nanotechnologies, Advanced Materials, Biotechnology, and Advanced Manufacturing and Processing

Call for Energy-Efficient Buildings (EEB)

EEB-02-2016: Performance indicators and monitoring techniques for energy-efficiency and environmental quality at building and district level

Specific Challenge: The construction sector is a key player in the efforts to decarbonise the European economy with the goal to drastically reduce energy consumption and decrease CO2 emissions. Key Performance Indicators, along with appropriate methodologies and tools are crucial in order to quantify and benchmark the energy-efficiency and the environmental quality at building and district level. Adequate monitoring and management techniques are also needed, mixing results and practices from the building sector together with other relevant sectors like energy grid to ensure an effective performance improvement both at building and district level.

Scope: Proposals should focus on solutions beyond the state of the art, which will improve and provide a feedback on the experiences on energy efficiency and environmental quality from the latest generation of new and renovated buildings and their interactions in districts.

Proposals should focus on the following main objectives:

- To establish a consolidated structured and geo-clustered analysis and compilation of the latest generation buildings and their interaction with district resources in order to develop the return of experience associated with them,
- To identify and analyse relevant sectorial indicators, development of models providing insight in data and that will enable and support decision making for energy efficiency and environmental quality, from design to operational phases,
- To elaborate and develop operational and harmonised protocols supporting tools and systems to characterize the performances in real operational conditions,
- To develop benchmarks on the impact of the non-qualities on the overall energy performance, which protect privacy while allowing deep analysis,
- To understand the specific causes of non-performance or sub-optimal performance throughout the entire life cycle (from design to construction and operation) and promoting best practices to the industry.

The Commission considers that proposals requesting a contribution from the EU between EUR 500000 and 750000 would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

No more than one action will be funded.

Expected Impact:

- Setting up more accurate guidance for all types of building that can be used by design teams, in particular for the public procurement of innovative solutions. This accurate guidance should match actual building operation more closely;
- Collecting Europe-wide data and knowledge on the effective performance of new and renovated buildings of the latest generation;

- Developing scientific and technical databases which should be robust and shared to objectify and characterize performance in situ. This database should also allow the comparison between forecasts and reality, and detail the need to change practices;
- Statistical and knowledge analyses enabling to reach consensus on how to bridge the gap between performances expected at the design level and performances really obtained.

Type of Action: Coordination and support action (CSA)

Deadline: 21 Jan 2016

EEB-08-2017: New business models for energy-efficient buildings through adaptable refurbishment solutions

Specific Challenge: The most important benefit associated with the refurbishment of an existing building comes from improving the energy performance, which gives an essential contribution to reach the EU 2020 consumption goals, taking into account that buildings represent 40% of the energy use in the EU. A key challenge for its large-scale implementation is the necessity to manage a broader involvement of stakeholders representing different interests and different responsibilities influencing the potential solutions and actions. This regards not only the choice of technologies, but also the design and renovation methods, as well as a number of socio-economic issues.

Nowadays, decentralised energy generation technologies have been demonstrated in a number of building applications in Europe and beyond but large scale uptake and business deployment of these technologies is still in its early stage. Currently, the renovation level is about 1.2% of the building stock in Europe per year and it should increase, according to the European Performance Building Directive (EPBD), to 2 - 3 % per year until 2030. Innovative business models which allow consumers and the market to invest with confidence in long term operation, maintenance, reliability and service levels need to be developed.

Scope: Activities should focus on the benchmark and the assessment of innovative business models, evaluating different refurbishment packages enabling the selection of the most attractive and efficient ones for different building types (residential/District Heating Cooling connected) and climatic conditions, taking the maximum advantage of user behaviour and geo-clustering.

Adequate assessment tools and the methodological challenges facing analyses addressing the issue of comprehensive analytical approaches in order to inform business decisions in this respect need to be discussed. Life cycle models as input to the decision making process in the feasibility phase of the renovation project also need to be considered.

Proposals need to assess different highly resource-efficient business models for refurbishing buildings including the assessment of the possibilities provided by public procurement of innovative solutions, appropriate combinations of public and private funding, or only private funding. These concepts need to be developed taking into account the building owners, the socio-economic impacts, and the current EU crisis.

Proposals should also develop effective methods for steering and governance especially paying attention to the local scale, including the variety of actions by cities and municipalities that can

define obligations or encourage voluntary actions. In particular the business models developed should support the preparation of innovation-related public building procurements by local/regional/national authorities or at European level, taking into account the needs of the public sector with regard to high-performance buildings (new or retrofitted ones).

The business models should cover the complete cycle as from the design phase of the building: decentralised energy generation technologies, integration, installation, commissioning, operation, servicing and maintenance, etc. In this framework, activities should cover business model design and optimisation, market and customer segmentation approaches for decentralised energy generation, consumer behaviour and decision driver research for optimising business model structures, supply chain and concept delivery optimisation, new earning models and financing mechanisms. In addition, proposers should also seek solutions to increase participation of stakeholders, considering methods to engage end users living in the buildings/neighbourhood and methods to increase the interest and commitment of building owners and market partners.

Socio-economic impacts of refurbishment should be taken into account considering the possibly drastic effects of high renovation costs on house owners and tenants, and seeking possible solutions to reduce costs, as well as addressing the needed commitment by users to energy efficiency after renovation.

Clear evidence of technical, environmental and economic viability should be provided. The possibility to engage municipalities planning to integrate renewable energy sources in the built environment could be an added value.

This topic is particularly suitable for SMEs.

The Commission considers that proposals requesting a contribution from the EU between EUR 500000 and 1 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Cost-effectiveness of the renovation compared to current costs.
- Adaptive renovation packages with high energy efficiency and low environmental impact.
- Increased awareness of and commitment to improved energy-efficiency of the building stock.
- Increased capacity of municipalities to effect the renovation of building stocks, in particular through the use of public procurement tools.
- Better quality standards and performance guarantees while improving indoor environment and remaining cost-effective.
- More involvement of customers/users in the integrated–innovative business model solutions.

Type of Action: Coordination and support action

Deadline: 19 Jan 2017

Innovative and responsible governance of new and converging enabling technologies

NMBP-33-2016: Networking and sharing best experiences in using regional clusters strategies with a focus on supporting innovation in the NMBP thematic area.

Specific Challenge: The development of the smart specialisation strategies has put in place a more structured framework for programme and project implementation regarding regional/ sector specialisations. This can help improve the knowledge that can be provided regarding NMBP related actions. Many Member States already identified the need to improve the articulation between NMBP and ESIF.

Regions find it still difficult to mobilise their internal resources in combining technology and regional development. Regional public private partnerships or regional clusters play a key role in this approach to connect EU-wide entrepreneurship and innovation (in particular in SMEs) to the European agenda.

The partners should show the EU innovation and industrial policy for new growth in NMBP needs to build on regional resources and potentials. Interlinking the regional eco-systems and clusters into new innovation driven cross-EU value chains could be the key to articulate competitive positions, meet global challenges and achieve a balanced and sustainable growth.

The proposal should bring together and integrate representatives from: higher education institutions; research centres; large companies; SMEs; relevant European organisations and associations; as well as national, regional and local authorities from Europe which are involved in preparing regional cluster strategies in the NMBP area.

Scope: The aim is to jointly identify good initiative and novel approaches, key success factors in driving actions forward and to shape strategic priorities for future regional cluster policies at European level in NMBP. Regional clusters or regional innovation hubs are a fertile field where synergies can be achieved.

Regional clusters have been active in the Smart Specialisation Strategy (RIS3) and KETs prioritisation process and can continue to play an important part in these processes, for example by acting as a resources channel towards SMEs and help structure KET based industrial value chains. Regional clusters or regional innovation hubs can be key delivery instruments for national and regional smart specialisation strategies, re-industrialisation and SME policy.

The proposal should take into consideration and build on existing or ended coordination actions in the NMBP area that tackled the issue of programming synergetic actions between EU and MS in the NMP Programme and generated results and recommendations for specific co-investment opportunities, linked to global market needs.

The Commission considers that proposals requesting a contribution from the EU between EUR 250 000 and 500 000 would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting another amount.

No more than one action will be funded.

Expected Impact:

- Boosting regional structural change through modern regional cluster policies;
- Identify and develop regional cluster, regional innovation hubs and business networks collaboration across borders and sectoral boundaries in the field of NMBP;
- Identification of best regional cluster strategies in the NMBP area;
- Identifying priorities for future regional cluster actions in NMBP; New trends, new models, challenges and visions for cluster policy;
- Defining the role of clusters for regional smart specialization (e.g. cluster mapping, strategic roadmaps, public procurement instruments).

Type of Action: Coordination and support action

Deadline: 21 Jan 2016

CALL FOR FACTORIES OF THE FUTURE (FOF)

FOF-05-2016: Support for the further development of Additive Manufacturing technologies in Europe

Specific Challenge: Additive Manufacturing (AM), including 3D-Printing, is one of the potential game changers that, for some applications, has already reached a tipping point of maturity. European companies are still strong in some areas but this position requires high levels of continuous innovation, especially where competitors are fast approaching. There are also other areas that are comparatively less developed and where the technology transfer and adoption is not functional, leading to a slow uptake of the results.

Despite the EC support, in the global picture the competitiveness of the European companies is threatened by important investments at international level. Moreover, some of the more fundamental aspects in order to take advantage of this promising technology still need to be addressed.

It is necessary to identify current bottlenecks and barriers to further development of AM technologies in Europe. Furthermore the stakeholders also need to be mobilised in order to exploit the business opportunities that AM provides, facilitating the take-up of this technology in Europe, with a focussed promotion and support strategy for Additive Manufacturing technologies.

Scope: The proposals should address most of the following aspects:

Identification of gaps and opportunities for further research and innovation, as well as non-technological gaps in order to develop policy framework recommendations (e.g. regulation, standardisation, public procurement).

- Community building activities (think-and-do-tank) and actions to foster dialogue and collaboration across levels (stakeholders and governance) and with key strategic partners, the Member States and the European Commission. This broad multi-stakeholder community (science, policy, business, society) at local, regional, national and EU level will enable the launching of innovation partnerships for developing and testing of AM.
- Assessment of the current regulatory and IPR frameworks, micro- and macro-economic assessment of opportunities and risks and its impact on social aspects and labour market benefits.

- Productivity and resource efficiency gains through AM and its impact on European competitiveness through localised manufacturing, where more goods will be manufactured on demand, individually designed and close to their point of consumption.
- Identification of current bottlenecks for the transferability of new technologies across sectors.
- Development of best practices to help stakeholders to achieve large scale deployment.
- Identification of bottlenecks that prevent the stimulation of investments in new AM technologies and promote successful innovative AM solutions.
- Support information exchange and collaboration between EU funded projects which address the same AM areas to exploit synergies, particularly through SMEs.
- Development of new integrated design and manufacturing paradigms, where the time to replan, reprogramme and evolve in the shop floor production is reduced.
- Building skills capacity for innovation and competitiveness, engaging with academia for the development of learning resources adaptable to different learning approaches and curricula at undergraduate, master, and life-long learning levels.
- Assessment of the current regulatory and IPR frameworks; anti-counterfeiting features, particularly where high value and/or safety critical components are being manufactured; micro- and macro-economic assessment of opportunities and risks; and its impact on social aspects and labour market benefits.

Proposals should include the organisation of workshops with top-ranked international experts and EC services from the various disciplines aiming at the elaboration of a future AM roadmap, as well as an International Conference on AM at the end of the project.

In order to ensure the industrial relevance and impact of the research effort, the active participation of industrial partners represents an added value to the activities and this will be reflected in the evaluation, under the criteria Implementation and Impact.

The Commission considers that proposals requesting a contribution from the EU between EUR 750000 and 1000000 would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

No more than one action will be funded.

Expected Impact:

- The proposals are expected to have an impact on the European AM community in the following ways:
- Create a network of research and industry partners for further RTD and industrial innovation and contribute to the sharing of European best practices.
- Create links and foster collaboration with relevant European initiatives and activities, e.g. Additive Manufacturing Platform within the ManuFuture ETP and the Vanguard Initiative.
- Speeding up industrial exploitation and take up of results of AM and facilitate cross-sectorial technology transfer.
- Early awareness of key innovation developments and anticipation of business trends and market prospects.

- Training and educational skills capacity in the AM community, both at academic and professional level.
- Enabling regulatory authorities to address better the relevant issues based on a thorough assessment of the current legal framework, IPR management and standardisation needs.
- Rationalising the process to deliver standardisation mandates to the European Standards Organisations.
- Favour investment of financial players in additive technologies application.

Type of Action: Coordination and support action (CSA)

Deadline: 21 Jan 2016

CALL FOR SUSTAINABLE PROCESS INDUSTRIES (SPIRE)

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

Specific Challenge: Dissemination, exploitation and transfer of projects results are important activities during project life-time and beyond in order to make sure that projects fully achieve the expected impacts. Clustering of project activities, according to specific objectives and addressed themes, and their inter-linking with existing technology transfer activities, are effective ways to stimulate the take-up of project results and to exploit synergies. Further, there is a need to focus on knowledge transfer and training issues regarding present and future industrial workers in the whole value chain, for which a strong link between industry and academia is needed.

An adequate exploitation of such activities together with a joint analysis of the results obtained and the training needs during the project lifetime and beyond is also needed, to ensure an effective implementation at the PPP level.

Scope: Proposals should aim in particular to actively cluster existing activities under the SPIRE PPP that go beyond the exploitation and dissemination activities of each project. The initiative, which is expected to last 2 years, will require close collaboration with relevant industrial associations, technology and knowledge transfer programmes as well as the training community.

The project should aim at looking for new ways of engaging with the broader process community, and encouraging engagement with other networks in the process industry (e.g. regional networks).

Activities may include:

- Moving beyond traditional dissemination activities and favour the development of tailored innovative dissemination actions and initiatives inspired by project outcomes and targeted at specific stakeholders (incl. SMEs, learning community).
- Sharing insights on innovative business model concepts for implementing resource and energy efficient solutions, including cradle to cradle and industrial symbiosis approaches.
- Identification of gaps and opportunities for further research and innovation, as well as non-technological gaps in order to develop policy framework recommendations (e.g. regulation, standardization, public procurement).
- Workshops with top-ranked international experts from the various disciplines aiming at the elaboration of future SPIRE priorities and training needs within the technological area of the cluster.

- Building skills capacity for innovation and competitiveness in the process industry (e.g. engaging with the academia for the development of learning resources adaptable to different learning approaches and curricula at undergraduate, master, and life-long learning levels, based in particular on the innovation outcome of projects).
- Reviews of recent technological developments, publications, international RTD and innovation programmes within the technological area of the cluster.

The Commission considers that proposals requesting a contribution from the EU between EUR 250000 and 500000 would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: The impact on the areas of application of the projects is expected to be:

- Speeding up industrial exploitation and take up of results of SPIRE PPP projects and facilitate cross-sectorial technology transfer.
- Stimulation of networks and alliances for further RTD and industrial innovation in the addressed technology and application areas.
- Added value beyond the original scope of the SPIRE PPP projects by exploiting synergies and sharing best practice, including on innovative business models. Increased public presence and awareness of SPIRE PPP activities.
- More effective execution of activities of common interest, such as training & education, IPR management and standardisation.
- Anticipation of business trends and market prospects.
- Early awareness of key innovation developments.
- Dissemination of project results beyond traditional dissemination models and timeframe of the projects.
- Development of training and innovation skills capacity in the process industry.

Type of Action: Coordination and support action (CSA)

Deadline: 19 Jan 2017

5 iii. Space

Call - Earth Observation – 2016

EO-2-2016: Downstream services for public authorities

Specific Challenge: Copernicus, the Union's Earth observation and monitoring programme entered into force in 2014 and produces a wealth of data and information regarding the Earth sub-systems (land, atmosphere, oceans) and cross-cutting processes (climate change, emergency and security). Such information can be very helpful for reporting obligations of Member States and can enable informed decision-making. At the same time such information needs either adaptation to local conditions and contexts, or adaptation to the specific needs of public authorities as part of workflow and procedures. The challenge is to deepen user integration and thus foster exploitation of Copernicus information to match the needs of public authorities at national, regional or local levels.

New and innovative solutions are needed to address the existing and emerging societal challenges faced among others by the public sector. Some of these societal challenges require public sector

transformations for which no commercial stable solutions exist, and that require a more forward looking public procurement strategy either through incremental or radical innovation.

Scope: The objective is to launch demand-driven innovation actions by public authorities aiming at customising Copernicus information as part of the solution (i.e. possibly alongside other space or non-space data sources) for their needs. Transnational collaboration has a key role to play in this context, as it can facilitate knowledge transfer and optimisation of resources for public authorities. It also fosters service providers who can benefit from an strengthened digital single market. Application products are expected to adopt open standards for data documentation, data models and services.

The choice of Copernicus service and associated downstream EO-based services left to the proposer. Applicants are advised to consult further information on availability of Copernicus Sentinel Data, access to Copernicus Contributing Mission data, as well as issues recommended to be detailed in the proposals at the Commission's website⁵.

It should also be noted that coupling with ESIF6 actions could facilitate this process and can ensure continuity.

Expected Impact:

- The establishment of buyer groups for Earth observation services;
- Copernicus-enabled national, regional or local applications in support of public authorities;
- Fostering the emergence of similar EO-based actions in smart specialisation strategies;
- Establish sustainable supply chains for delivery of downstream EO-based services to public authorities.

Type of Action: Pre-Commercial Procurement PCP

Budget 2016: 3 Mio. Euro, Deadline: 3 Mar 2016

6. Actions supporting Access to Risk Finance

Other actions

[InnovFin Large Projects](#) aims to improve access to risk finance for R&I projects emanating from large firms and medium and large midcaps; universities and research institutes; R&I infrastructures (including innovation-enabling infrastructures); public-private partnerships; and special-purpose vehicles or projects (including those promoting first-of-a-kind, commercial-scale industrial demonstration projects, or innovation procurement projects). Loans from EUR 25 million to EUR 300 million are delivered directly by the European Investment Bank (EIB).

8. Health

Personalised Medicine - 1.4 Active ageing and self-management of health

[SC1-PM-12-2016](#): PCP - eHealth innovation in empowering the patient

Specific Challenge: Empowering the hospitalised patients, outpatients and their families/carers to support a continuum of care across a range of services can relieve the pressure on governments to provide more cost-effective healthcare systems by improving utilisation of healthcare and health outcomes. The support for patients should be understood broadly covering a continuum of care in

hospital, in outpatient care, and integration back to working life. For example rare diseases are particularly difficult to manage far from specialised centres. The eHealth action plan 2012-2020 and the outcome of the mHealth Green paper pave the way towards empowerment of the patient with the assistance of ICT.

Scope: Actions that focus on enabling the transition to new services or better integration of existing services through appropriate ICT based technologies using relevant elements e.g., proof of concept, user acceptance, use of the service, training of the professionals including online courses/forums that bring professionals and patients together, trust and security and consent of the patient. These strategies should allow communication to happen by increasing the level of interactions between the patient and the health professionals or informal carers, sharing of data and enabling the users to stay in control of their health condition and to adhere to prescribed medical plans and contribute to increasing the effectiveness of interventions. Examples of services could contain but not limited to:

- telemedicine services to follow patients e.g., with chronic or rare diseases after hospital discharge, and to interact with patients, carers and health professionals;
- e-mental health for patient empowerment with self-management tools and blended care; and
- domestic rehabilitation (both physical and cognitive) procedures under remote professional supervision.

Proposals should aim to develop a common language between patient and health care professionals, increase patient health and IT literacy, and foster individual patient empowerment giving the patient tools to take major life decisions and actively participate on the treatment and recovery from the disease. ICT solution should address relevant ethics and gender aspects and should also address related regulatory questions such as ownership of data, data protection/privacy and consumer protection. Open innovation with patients or/and informal carers could be included as an integral part of the concept.

The Commission considers that proposals requesting a contribution from the EU of around 4 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Improve the quality and cost-effectiveness of healthcare systems by challenging industry from the demand side to develop innovative solutions that: increase the role and the responsibility of the patient, support self-management; reduce the number of severe episodes and complications; enhance the ICT skills and increase adherence of patients and care givers; strengthen the evidence base on health outcomes and management of comorbidities; increase the information about disease progression with advanced diagnostic techniques; provide early and predictive data about patient disease; reduce the number of unproductive visits to the hospital; and implement intensive rehabilitation programs at home when appropriate
- Reduced fragmentation of demand for innovative solutions to facilitate PCPs of expected minimum value of EUR 3 million by leveraging resources, encouraging among others also synergies with Structural Funds

- Increase the opportunities for solution uptake across wider international procurement markets by aiming at interoperable solutions that are validated through field testing by participating procurers in multiple countries across Europe and contribution to standardisation where relevant
- Equal access rights to the results generated by the PCP for all procurers jointly undertaken a PCP aiming for a fair and transparent level playing field for modernizing public services

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2016: 18 Mio. Euro, Deadline: 16 Feb 2016

SC1-PM-13-2016: PPI for deployment and scaling up of ICT solutions for active and healthy ageing

Specific Challenge: The fast growing ageing population in Europe is bringing new demand-side pressures on public health and care providers. These pressures undermine the long-term sustainability of existing models of delivering care services to the ageing population.

The challenge is to scale up innovative solutions, which have been tested and have demonstrated success in smaller scale settings and that have not yet been deployed on a large scale, by contributing to collaborative efforts in public purchasing of innovative ICT-based solutions for active and healthy ageing. These include inter alia integrated care and active ageing solutions, independent living solutions and telecare, support for self-care and person-centred care. Moreover, take-up of these ICT-based solutions by both public care providers as well as people in need for care is a crucial factor in successfully alleviating the demand-side pressures on public health and care provision.

Scope: This topic will contribute to the Scaling-Up Strategy of the European Innovation Partnership on Active and Healthy Ageing and to boosting the Silver Economy and Digital Single Market in Europe. The actions supported will target deployment of active and healthy ageing solutions at large scale across different regions in Europe.

In line with the priority actions of the Scaling-up Strategy, the scope of the PPI pilot(s) is to specify, purchase and deploy ICT based solutions for active and healthy ageing which can deliver sustainable, new or improved services in which public procurement approaches for innovative solutions are successfully applied.

Proposals should:

- Be driven by clearly identified procurement needs of the participating organisations and building on a complete understanding of the needs of the ageing population, as well as the needs of the relevant health and care providers;
- Support sustainable deployment of new or improved services by providers involved in the procurement of solutions for active and healthy ageing;
- Contribute to the creation of scalable markets across Europe in innovative solutions for active and healthy ageing;
- Specify measures that will ensure the sustainability of solutions beyond the lifespan of the proposed project;

- Engage public and/or private procurers from each country participating (at national, regional or local level) that have responsibilities and budget control in the relevant area of care or supply of services;
- Be based on a complete set of common specifications for end to end services;
- Demonstrate that the implementation phase will reach "large scale" (i.e. sufficient scale to achieve statistical significance) through region-wide deployment across multiple regions of Europe;
- Contribute to the use of interoperable solutions based on open platforms and take into account existing best practices and standardisation initiatives;
- Provide robust safeguards to ensure compliance with ethical standards and privacy protections and take account of the gender dimension;
- Contribute good practices to be made available for replication across other regions (e.g. "detailed plans" for larger scale sustainable uptake of innovative solutions for active and healthy ageing, reference material and guidelines, manuals and education materials).

The European Commission considers that proposals requesting a contribution from the EU of between EUR 2 and 5 million would allow this specific challenge to be addressed appropriately through PPI. This does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Growing awareness and successful use of public procurement to boost ICT innovation applied to active and healthy ageing, ultimately benefiting the growing ageing population across Europe;
- Contribution with data and experiences to regulatory and legislative process development addressing potential barriers to procurement of innovative solutions for active and healthy ageing;
- Contribution of an open and comprehensive socio-economic evidence base for ICT investments in the field that can support the development of sustainable business models (e.g. cost-benefit analysis, increased efficiency of health and care systems, impact assessments, return on investments, quality of life improvements for users, ethics, safety gain and user satisfaction);
- Support initiatives on interoperability and standardisation that can contribute to defragmentation of the market for ICT based active and healthy ageing solutions;
- Creation of economic boundary conditions that can support long-term sustainability of health and care systems and emergence of new business models to develop ICT innovation for active and healthy ageing in Europe;
- Support forward-looking, concerted public-sector investment strategies that benefit from joint approaches across different regions;
- Create new opportunities for market uptake and economies of scale for the supply side for ICT based solutions and services for active and healthy ageing in a Digital Single Market for Europe.
- Contribute to inform policy measures that foster the take-up of ICT solutions for active and healthy ageing.

Type of Action: Public Procurement of Innovative solutions (PPI)

Budget 2016: 10.5 Mio. Euro, Deadline: 16 Feb 2016

1.5 Methods and data

SC1-PM-19-2017: PPI for uptake of standards for the exchange of digitalised healthcare records

Specific Challenge: The use of interoperability standards is essential to the wider deployment of an EU eHealth single market. Despite previous Framework Programmes investments, there is still a profound lack of deployed interoperability between healthcare systems and services delivering healthcare and a need to stimulate the public procurement of eHealth solutions and integrated care services addressing complex organisational structures and interactions among people (recipients of care, care-givers, and others).

Scope: Proposals should address as primary aim public procurement of innovative solutions (PPI) to facilitate the deployment of an eHealth infrastructure taking into consideration the European eHealth Interoperability Framework and EU guidelines adopted by the eHealth Network. The PPI(s), and any accompanying innovation activities in particular by participating procurers themselves to facilitate the uptake of newly developed solutions, should focus on clear target outcomes such as allowing the sharing of health information, the use of semantically interoperable Electronic Health Records (EHRs) for safety alerts, decision support, care pathways or care coordination. The scope of the PPI(s) is to specify, purchase and deploy innovative ICT based solutions which can deliver sustainable, new or improved healthcare services across organisational boundaries while implementing eHealth interoperability standards and/or specifications (e.g. EN13606, HL7, Continua Alliance, IHE...).

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 4 million would allow this specific challenge to be addressed appropriately.

Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Wider uptake of eHealth interoperability standards
- Increased suppliers opportunities from wider market uptake of innovative solutions and services by forming a critical mass on the public demand side
- Better solutions specifications designed from a demand side perspective
- More forward-looking, concerted, public sector approach to eHealth interoperability
- Achieve the wider deployment of eHealth services
- Create a European role model in the eHealth interoperability field
- Increasing jobs in health and ICT and contributing to economic growth in the EU in the long-term
- Support forward looking, concerted public-sector investment strategies that benefit from jointly implementing PPIs across different countries around Europe

Type of Action: Public Procurement of Innovative solutions (PPI)

Budget 2017: 8.26 Mio. Euro, Deadline: 14 Mar 2017

10. Energy

CALL – ENERGY EFFICIENCY, 4. Industry, services and products

EE-19-2017: Public Procurement of Innovative Solutions for energy efficiency

Specific Challenge: Considering the large volume of public spending (19% of EU GDP, or roughly EUR 2,200 billion in 2009), the public sector constitute an important driver to stimulate market transformation towards more sustainable energy-related products and services. The Energy Efficiency Directive requires that central governments purchase only products, services and buildings with high energy-efficiency performance. Public Procurement of Innovative solutions (PPI) is not sufficiently developed in the field of energy efficiency although it could support the market up-take of energy efficient goods, buildings or services.

Scope: Actions enabling local authorities to undertake one joint PPI procurement of innovative solutions for buildings (NZEB, renovation), products or services, which are not yet available on a large-scale commercial basis, and which have energy performance levels that are better than the best levels available on the market. This should result in one joint PPI call for tender launched by the lead procurer and one joint evaluation of offers. Actions should deploy commercial volumes of the innovative solution, in order to assure its market uptake. Functional/performance based specifications should be ambitious but achievable without the procurement of research and development and without distorting competition. Where appropriate, proposals should build upon the outputs of ongoing projects (including the Project Development Assistance projects), networks, guides, tools, and rely on the use of cost – benefit analysis (e.g. using a life- cycle approach). Proposals should actively use the Procurement of Innovation Platform supported by the European Commission. The procurement of innovation process should be associated with coordination and networking activities that embed the PPI into a wider set of demand side activities, including the removal of marked barriers (e.g. lack of knowledge, practical training, tailored guidelines and legal uncertainties) and awareness and knowledge sharing activities. Actions should involve large multipliers such as central purchasing organizations.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. The funding rate for Public Procurement of Innovative Solutions (PPI) actions is limited to 35% of the total eligible costs (PPI is procurement for the purchase and deployment of innovative solutions) to leverage co-financing from the procurers.

Expected Impact: For PPI actions, proposals are expected to demonstrate the impacts listed below (wherever possible, use quantified indicators and targets):

- Exploitation strategy, assuring the deployment of commercial volumes of the innovative solution and their wide diffusion and a dissemination strategy assuring that the results of the action reach considerable numbers of relevant stakeholders.
- Energy performance levels of new buildings should be at least 25% better than current regulations or reach NZEB performance levels. For existing buildings, energy savings of at least 60% compared to the existing building should be reached, using innovative solutions.

Products and services, should demonstrate at least 25% better performance in terms of energy efficiency than best available solutions on the market.

Type of Action: Public Procurement of Innovative solutions (PPI)

Deadline: 7 Jun 2017

11. Transport

CALL 'MOBILITY FOR GROWTH, 4. URBAN MOBILITY

MG-4.4-2016: Facilitating public procurement of innovative sustainable transport and mobility solutions in urban areas

Specific Challenge: Market demand for sustainable urban mobility solutions can be boosted by increasing purchaser (and indirectly end-user) awareness about technologies and processes used in implementing sustainable urban solutions. Urban areas concentrate demand for sustainable transport and mobility solutions (such as alternatively fuelled vehicles and supporting (refuelling) infrastructure) by public procurers. The procurement of innovation can support the broad market take-up of innovative solutions through the jointly planning (across borders) demand created by public procurers.

Scope: Under this topic, support should be provided for the establishment of a number of cross-border networking activities that plan future public procurements of innovation (PPI) and/or pre-commercial procurements (PCP) of solutions that result in sustainable urban mobility, including vehicles corresponding to alternative fuels infrastructure as legislated in Directive 2014/94. Also actions funded here could complement those funded in the ELENA instrument in two ways: the preparatory public procurement activities funded in this topic could lead to ELENA applications, or the implementation of an ELENA action could be supported as part of the actions funded in this topic.

Proposals should be driven by clearly identified needs of the procurers, including life-cycle and cost-benefit assessments. It is envisaged that there will be a fairly small (about 5-10 organisations) consortium of public procurers that organises dissemination activities for a larger group of public procurers. Clear commitments from participants for a further Europe-wide take-up and rollout of results during and following the project are expected. Proposals could include new approaches for market consultations with suppliers, paying special attention to SME suppliers. Proposals should consider where possible strategies to plan and implement joint, cross-border procurement of solutions that are not yet available on a large-scale commercial basis and which entail a higher risk than purchasing products that are already commercially widely available.

Consortia should consist of public procurers or a group or multiple groups thereof, i.e. contracting authorities in the meaning of the public procurement Directives at all levels (local, regional, national and supra-national) that plan to establish implementation plans for improving the quality and efficiency of their public service offering by procurement of innovative solutions²⁶ for use in cities and communities. This includes both contracting authorities in the meaning of the public procurement directive for public authorities (2004/18/EC) and utilities (2004/17/EC), for example public transport operators, relevant ministries, utilities, communes and cities, police or fire brigades, e-government administrations, etc.

The activities funded by the topic do not finance the actual procurement(s) made by project consortia or their members.

The Commission considers that proposals requesting a contribution from the EU of between EUR 0.6 to 1 million each would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Actions will lead to:

- An executed plan over the project lifetime that contains at least the following: 1) better harmonised (between the various procurers) and articulated technical specifications; and 2) new, joint approaches for doing the competitive dialogue and defining award criteria in the specific area(s) of common purchasing needs.
- Setting up 'buyers groups' of public procurers that undertake joint, cross-border or coordinated procurements.
- Exchanging experience in procurement practices and strategies (organising trainings and other information exchange tools) in the specific area(s) of common purchasing needs.
- A set of well-documented practices available for replication
- Increased awareness, capacity building and a demonstrated, increased public purchasing of innovative urban mobility solutions.

Type of Action: Coordination and support action (CSA)

Budget 2016: 2 Mio. Euro, Deadline: 26 Jan 2016

12. Climate action, environment, resource efficiency and raw materials

Raw materials

SC5-14-2016-2017: Raw materials Innovation actions

Specific Challenge: The EU is highly dependent on raw materials that are crucial for a strong European industrial base, an essential building block of the EU's growth and competitiveness. Securing the sustainable access to raw materials, including metals, industrial minerals and construction raw materials, and particularly Critical Raw Materials (CRM), for the EU economy is of high importance.

The challenge for industry is to scale-up promising raw materials production technologies and to demonstrate that raw materials can be produced in an innovative and sustainable way in order to make sure that research and innovation end-up on the market, to strengthen the competitiveness of the European raw materials industries, to meet ambitious energy and climate 2030 targets and to gain the trust of the EU citizens to raw materials sector.

This specific challenge is addressing development of the "innovative pilot actions" which is one of the major targets of the European Innovation Partnership (EIP) on Raw Materials.

Scope: The main objective is to develop innovative pilots demonstrating clean and sustainable production of non-energy non-agricultural raw materials in the EU from primary and/or secondary sources.

All proposals should cover all the following points:

- justify relevance of selected pilot demonstrations, finishing at Technology Readiness Levels (TRL) 6-8, in different locations within the EU (and also outside if there is a clear added value for the EU economy, industry and society);
- facilitate the market uptake of solutions developed through industrially- and user-driven multidisciplinary consortia covering the relevant value chain;
- include an outline of the initial exploitation and business plans (with indicated CAPEX, OPEX, IRR and NPV32) with clarified management of Intellectual Property Rights, and commitment to the first exploitation;
- consider standardisation aspects when relevant;
- assess health, safety and environmental risks and their management for all proposed actions to avoid environmental damage and maintain overall ecological stability;
- include a plan to communicate the added value of the proposal to the local communities and society for improving public acceptance and trust should be addressed by all the proposals. Participation of civil society from the start of exploration until after-closure activities in a process of co-design, co-development and co-implementation is strongly encouraged.

Wherever possible, proposers could actively seek synergies, including possibilities for funding, with relevant national/regional research and innovation programmes.

Within the projects funded, additional or follow-up funding should be sought, be it private or public, including from relevant regional/national schemes under the European Structural and Investment Funds (ESIF), in particular under the European Regional Development Fund (ERDF), or other relevant funds such as the Instrument for Pre-accession Assistance (IPA II). To achieve this, projects could seek contact with ERDF/IPA managing authorities and with the authorities who developed the Research and Innovation Smart Specialisation Strategies (RIS3). The responsible regional/national authorities could then take an interest in the projects and their expected results. They could engage in the use and deployment of the novel solutions resulting from projects e.g. through pre-commercial public procurement or public procurement for innovative solutions. The project proposals could already indicate which interested regions/countries or other partners have been pre-identified for contact during the project. Please note, however, that reference to such additional or follow-up funding will not lead automatically to a higher score in the evaluation of the proposal.

Projects should include a work-package to cluster with other projects financed under this topic and – if possible – with other relevant projects in the field funded by Horizon 2020, in support of the EIP on Raw Materials

In line with the EU's strategy for international co-operation in research and innovation (COM(2012)497) international cooperation is encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 8 million and EUR 13 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Proposals shall address only one of the following issues:

a) Intelligent mining on land (2016): Proposals should develop and demonstrate new intelligent mining systems to avoid exposure of workers in dangerous operations, to increase efficiency and profitability, and to minimise environmental impacts of the mining operations. Any of the metallic, industrials and/or construction minerals could be targeted. The importance of the targeted raw materials for the EU economy has to be duly demonstrated in the proposal.

b) Processing of lower grade and/or complex primary and/or secondary raw materials in the most sustainable ways (2017): Proposals should demonstrate new systems integrating relevant processing and refining technologies for better recovery of minerals and metals from low grade and/or complex ores, industrial or mining wastes at increased efficiency in terms of better yield and process selectivity. The importance of the targeted raw materials and their sources for the EU has to be demonstrated in the proposal. The solution proposed should be flexible enough to adapt to different ore grades and should be supported by efficient and robust process control.

c) Sustainable metallurgical processes (2017): Proposals should develop innovative metallurgical systems integrating pyro-, hydro-, bio-, and/or electro-metallurgical and/or electrochemical technologies, in order to enhance the production efficiency, metal recovery and selectivity from primary and/or secondary raw materials.

Expected Impact: Projects are expected to justify and provide evidence that they:

a)

- contribute to achieving the targets of the EIP on Raw Materials, particularly in terms of innovative pilot actions on mining for innovative production of raw materials;
- have a market potential and the competitive technology advantage that will be gained through the pilot leading to expanding the EU business and to be implemented across the EU after the project is finished;
- push the EU to the forefront in the area of mining technologies and solutions through generated know how (planned patents, publications in high impact journals and joint public-private publications etc.);
- lead to unlocking substantial reserves of new or today unexploited resources within the EU.
- create added value and new jobs in raw materials producing, equipment manufacturing, information and communication technologies and/or downstream industries;
- lead to improving the health and safety performance of the operations;
- avoid environmental damage and maintain overall ecological stability;
- improve awareness, acceptance and trust of society in a sustainable raw materials production in the EU;

b)

- contribute to achieving the targets of the EIP on Raw Materials, particularly in terms of innovative pilot actions on processing and/or recycling for innovative production of raw materials;
- improve economic viability and market potential that will be gained through the pilot, leading to expanding the business across the EU after the project is finished;
- create added value and new jobs in raw materials producing, equipment manufacturing and/or downstream industries;

- optimise raw materials recovery (increased yield and selectivity) from low grade and/or complex and variable primary and/or secondary resources;
- push the EU to the forefront in the area of raw materials processing technologies and solutions through generated know how (planned patents, publications in high impact journals and joint public-private publications etc.);
- lead to unlocking substantial reserves by giving economic viability to new or today unexploited resources within the EU;
- improve the environmental performance, including reduction in waste generation and a better recovery of resources from generated waste;
- improve the health and safety performance of the operations; improve the awareness, acceptance and trust of society in a sustainable raw materials production in the EU;

c)

- contribute to achieving the targets of the EIP on Raw Materials, particularly in terms of innovative pilot actions for innovative production of raw materials;
- improve economic viability and market potential that will be gained through the pilot, leading to expanding the business across the EU after the project is finished;
- optimise metal production (increased yield and selectivity) from primary and/or secondary resources, while keeping competitive process performance in terms of resource and energy efficiency;
- push the EU to the forefront in the area of metals processing and refining technologies and solutions through generated know how (planned patents, publications in high impact journals and joint public-private publications etc.);
- create added value and new jobs in metallurgy, equipment manufacturing and/or downstream industries;
- improve the environmental (control of emissions, residues, effluents), health and safety performance of the operations;
- improve the awareness, acceptance and trust of society in a sustainable raw materials production in the EU.

Type of Action: Innovation action (IA)

Budget 2016: 28 Mio. Euro, Deadline: 8 Mar 2016 (stage 1), 6 Sep 2016 (stage 2)

Support to policy and preparing for innovation procurement

SC5-26-2017: Pre-commercial procurement on soil decontamination

Specific Challenge: Soil contamination is typically caused by industrial activity, mining and smelting practices, agricultural chemicals or improper disposal of waste and is increasingly becoming a very serious environmental and health problem. Member States are making efforts to establish national decontamination/remediation strategies which are generally very costly. It is therefore crucial for public authorities to be able to identify the most fit-for-purpose and cost-effective innovative solutions.

The challenge is to address the lack of public demand driven innovation in the soil decontamination sector in Europe. This is needed to close the gap between supply and demand for innovative

solutions. Pre-commercial procurement (PCP) has the potential to be an effective demand side innovation action par excellence.

PCP enables a buyers' group (consortia of procurers) to procure research and development to create innovative solutions, speed up the time-to-market and provide best value for money.

Scope: Launch of PCP – i.e. a joint procurement of research and development services – to find common innovative and sustainable solutions for soil decontamination/remediation, avoiding 'dig and dump'. The proposal is expected to bring radical and innovative improvements to the quality and efficiency of public soil decontamination services, processes and products.

The core of the consortium should be a qualified 'buyers group' (public procurement consortium), able to implement the action. Additional partners such as business/SME support organisations, innovation agencies or sectoral organisations may be included, to assist procurers in knowing what is available on the market through market consultations.

Proposals shall describe the jointly identified challenge, indicating how it fits into the mid-to-long-term innovation plans of the consortium, why solutions currently available on the market or under development are not meeting their needs, and put forward concrete targets for the desired functionality/performance improvement in the quality and efficiency of their public services. Activities shall include: (1) networking relating to preparation, management and coordination, (2) joint research activities relating to the validation of the PCP strategy and (3) activities for the follow-up of the joint procurement, such as activities for awareness raising, networking, training, evaluation, validation and dissemination of results. Proposals should explain clearly how the creation of jobs, economic growth and new businesses will be assessed as an integral part of the project.

The PCP should deliver successful innovative and fully tested product(s) and/or service(s) that meet the common needs of the buyers' group and that is therefore ready to be marketable. The final aim of the action is to develop innovative and fully tested solutions, which are fit-for-purpose and cost-effective, for soil decontamination/remediation.

Proposals should build on and take care to avoid duplication of the activities undertaken by the BRODISE project.

Project(s) should have a maximum duration of 2 years.

The Commission considers that proposals requesting a contribution from the EU of around EUR 5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

The funding rate for Pre-Commercial Procurement (PCP) actions is limited to 90% of the total eligible costs (PCP is procurement of R&D services) to leverage co-financing from the procurers.

Expected Impact: The project is expected to contribute to:

- deployment of innovative solutions to deal effectively with soil contamination that respond to the common needs and beyond state-of-the-art performance targets of the buyers group;
- reduced fragmentation of demand for innovative solutions by enabling public procurers to collectively implement PCP in the area of soil decontamination challenges, which, due to

their nature, are better addressed jointly, or which they would not have been able to tackle independently;

- new opportunities for wide market uptake and economies of scale for the supply side through the use of joint specifications, wide publication of results and – where relevant – contribution to standardization, regulation or certification to remove barriers for introduction of innovations into the market;
- creation of new products, processes and/or services ready for market uptake, leading to viable new businesses, jobs and growth.

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2017: 5 Mio. Euro, Deadline: 7 Mar 2017

SC5-27-2016: Preparing for pre-commercial procurement (PCP) and/or public procurement of innovative solutions (PPI) in support of climate action, environment, resource efficiency and raw materials

Specific Challenge: Pre-commercial procurement (PCP) and public procurement of innovative solutions (PPI) are effective demand side innovation actions, since they enable public procurers to drive innovation from the demand side by acting as technologically demanding first buyers. This helps to improve the quality and effectiveness of public services and at the same time stimulates opportunities for companies to create, maintain or take international leadership in new markets.

Innovation-oriented public procurements (PCP and PPI) are key to fostering lead markets and generating a critical mass of demand for solutions and services addressing climate action, environment, resource efficiency and raw materials challenges. Barriers to these kinds of public procurement include the absence of cross-border coordination and lack of access to best practices and to knowledge of close-to-market innovative solutions.

Scope: Actions should prepare for PCPs and/or PPIs, which would be suitable for launching in 2018-2019. All areas covered by Societal Challenge 5 are eligible.

The action should deliver all the necessary elements in preparation of the PCP or PPI as described in part E of the General Annexes to this Work Programme.

Proposals should lead to the establishment of buyers' group(s) of public procurers to overcome the fragmentation of demand for solutions and services and to lead to a more rapid market uptake of such solutions and their early deployment. Procurements could address entire value chains in the areas(s) covered.

Proposals should engage public and/or private procurers from each country participating (at national, regional or local level) that have responsibilities and budget control in the relevant area(s).

The network(s) of public procurers/buyers' group(s) created should investigate the feasibility of, test and prepare the launch of joint or coordinated procurements (PCP or PPI), which would ultimately develop innovative, fully tested, fit-for-purpose and cost-effective solutions to address specific

challenges in the areas covered by Societal Challenge 5. These solutions should be based on a complete set of common specifications.

Duplication with on-going activities should be avoided, namely the project(s) resulting from WASTE-5-2014 and SC5-26-2017.

Preparation activities for the joint or coordinated PCPs and/or PPIs will be supported, but not the costs of the procurement resulting from any PCP and/or PPI procedures.

Project duration should be 12 months.

Proposals may target delivery of more than one PCP and/or PPI.

The Commission considers that a contribution from the EU of around EUR 50 000 per procurement (PCP or PPI) investigated and prepared would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: The project is expected to contribute to:

- creation of a critical mass of procurers of solutions and services in the area of Societal Challenge 5, which would be able to penetrate the market;
- leverage of additional investment in research and innovation;
- increased awareness and successful use of public procurement by procurers to boost innovation;
- reduced fragmentation of public sector demand via creation of a network(s) of public procurers capable of collectively implementing PCPs and/or PPIs.

Type of Action: Coordination and support action (CSA)

Deadline: 8 Mar 2016

14. Secure societies – Protecting freedom and security of Europe and its citizens

SECURITY, Disaster-resilience: safeguarding and securing society

SEC-02-DRS-2016: Situational awareness systems to support civil protection preparation and operational decision making

Specific Challenge: A major difficulty for civil protection actors to take proper, coordinated decisions for efficient actions (in relation with prevention, preparedness, surveillance, and in particular: response in times of crisis) results from insufficient situational awareness. This is even truer in the context of the EU Civil Protection mechanism⁸: reinforced cooperation across borders calls for improved cross-border situational awareness.

Technologies close to maturity and prototype tools exist, including some issued from previous FP7 R&D projects, that gather or provide data and information from a wide variety of sources useful to improve situational awareness in time of crisis. But no system that satisfactorily integrates these technologies and tools, and fuses these data and information, is available yet. Additionally, there is a theoretical framework which should be focused to understand the psychological, cultural, language

and societal dimension of situational awareness in order to prevent, prepare and manage crisis situations.

Scope: Situational awareness systems for EU, national, regional and local buyers should be cost effective and interoperable, integrate different technologies (sensors; sub-systems for surveillance, manned and unmanned systems, early warning systems, communication systems, satellite-based systems), result from public-private cooperation, and demonstrate resilience and relative self-sufficiency.

Situational awareness systems need to be customizable by specific civil protection authorities, and adaptable to various risks and crisis scenarios (for instance: climate-related hazards, industrial accidents, earthquakes, biohazards, space weather events, etc.), especially in the context of cross-border cooperation. Where needed, the involvement of other first-responders should be sought (i.e. water management authorities for flooding situations), in order to ensure full interoperability of systems.

The action will identify new and promising solutions, develop and agree on the core set of specifications of a specific system, on the roadmap for research still needed for its development, and the related tender documents upon which to base future (research services and system) procurements.

The EU may contribute to subsequent actions (PCP, PPI, other types of funding, ...) aiming at implementing tender procedures to develop, test and validate prototypes of such a system.

In line with the EU's strategy for international cooperation in research and innovation⁹ international cooperation is encouraged, and in particular with international research partners involved in ongoing discussions and workshops, with the European Commission. Legal entities established in countries not listed in General Annex A and international organisations will be eligible for funding only when the Commission deems participation of the entity essential for carrying out the action.

For grants awarded under this topic SEC-02-DRS-2016, beneficiaries will be subject to the following additional obligations aiming to ensure exploitation of its results:

The proposals must necessarily state the participants' commitment to make the standards, specifications, and all other relevant documents generated in the action available at actual cost of reproduction to any law enforcement or first responder organization established in an EU or EEA country.

To ensure that the outcome of the CSA becomes also available to EU Member State national authorities as well as EU agencies not participating in the CSA for further procurement purposes, the proposal must necessarily state:

(1). Agreement from participating procurement authorities to negotiate, in good faith and on a case-by-case basis, with non-participating procurement authorities that wish to procure a capability or a product fully or partly derived from the action, the use of the information required to run such a procurement process, and solely for that purpose.

(2). Commitment from participating procurement authorities to consult with any legal entity generating information to be released for the purpose set out in paragraph (1), unless contrary to applicable legislation.

(3). Commitment from participating procurement authorities to negotiate the use granted under paragraph (1) on Fair Reasonable and Non-Discriminatory (FRAND) terms.

The respective option on additional exploitation obligations of Article 28.1 of the Model Grant Agreement will be applied.

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of € 1.5million would allow for this topic to be addressed appropriately. Nonetheless this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Short/medium term

- Improved cooperation among civil protection services across the EU and Associated Countries
- Improved cooperation between hazard-monitoring institutes and civil protection services
- Improved exchange of experiences amongst (public) stakeholders on civil protection in relation to operations within the disaster risk management cycle (prevention, preparedness, surveillance, response);
- Improved European humanitarian Enhanced Response Capacity

Long term

- Lower operating costs for European humanitarian actions

Further to the CSA's successful achievement, the European Commission may consider calling for a PCP/PPI co-fund action in the future.

Type of Action: Coordination and support action (CSA)

Budget 2016: 1.5 Mio. Euro, Deadline: 25 Aug 2016

SEC-04-DRS-2017: Broadband communication systems

Specific Challenge: So far each EU Member States has adopted its own (broadband) radio-communication system for security forces (police, first responders, etc.). Such systems are not necessarily compatible with each other. The EU has funded projects to help to overcome this issue, including a CSA (under Call DRS-18-2015) for buyers of such systems to develop the core set of specifications and tender documents to be used for national procurements, or the legal setting of alternate organisational solutions which remain to be implemented taking into account the requirements for interoperable next generation PPDR broadband communication systems.

Scope: The SEC-04-DRS-2017 will be modified during the update of the 2017 Work Programme according to the following principles:

If the above-mentioned CSA has foreseen to go along the way of establishing a new organization intended for taking EU-wide responsibilities a short Phase 0 may be needed:

Phase 0: Legal establishment of the new organization, and transfer of the PCP contract from the consortium of buyers to this new organization.

If the above-mentioned CSA does not foresee the need for establishing a new organization, Phase 0 will be skipped, and the PCP would start with:

Phase 1: Plan and implement the tender procedures, based on the set of specifications and tender documents delivered by the CSA launched under Call DRS-18-2015 and available upon request to the European Commission, for procuring:

- prototype communication equipment's that will constitute the foreseen communication system
- prototype instruments for validating the components of the foreseen communication system

Phase 2: Establishment of a (networked) validation centre equipped with these instruments. Sustainability of the Validation Centre beyond the lifetime of the project should be addressed, both with respect to its legal status and its funding sources.

Phase 3: Testing and validation of the prototype components of the foreseen communication system

Phase 4: Demonstration of the foreseen communication system in a multidisciplinary (firefighters, police departments, medical emergency services, etc.), international (involving practitioners from at least 10 Member States or Associated countries), and realistic scenario.

For grants awarded under this topic SEC-04-DRS-2017, beneficiaries will be subject to the following additional obligations aiming to ensure exploitation of its results:

To ensure that the outcome of the PCP action becomes also available to EU Member State national authorities as well as EU agencies not participating in the PCP for further procurement purposes, the proposal must necessarily state:

(1). Agreement from participating procurement authorities to negotiate, in good faith and on a case-by-case basis, with non-participating procurement authorities that wish to procure a capability or a product fully or partly derived from the PCP action, the use of the information required to run such a procurement process, and solely for that purpose.

(2). Commitment from participating procurement authorities to consult with any legal entity generating information to be released for the purpose set out in paragraph (1), unless contrary to applicable legislation.

(3). Commitment from participating procurement authorities to negotiate the use granted under paragraph (1) on Fair Reasonable and Non-Discriminatory (FRAND) terms.

The respective option on additional exploitation obligations of Article 28.1 of the Model Grant Agreement will be applied.

The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL) 8; please see part G of the General Annexes.

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of € 10million would allow for this topic to be addressed appropriately. Nonetheless this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Established EU-interoperable broadband radio communication system for public safety and security, providing better services to first responders and police agencies and allowing shorter reaction times to prevent from casualties or victims, deployed by 2025.

For this impact to be as large as possible across the EU, special conditions have been attached to the CSA launched under Call DRS-18-2015 as regards access to standards, specifications, and all other relevant documents.

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2017: 10 Mio. Euro, Deadline: 24 Aug 2017

Fight against crime and Terrorism

SEC-09-FCT-2017: Toolkits integrating tools and techniques for forensic laboratories

Specific Challenge: Since 2011 the EU has developed a vision about European Forensic Science 2020 including the creation of a European Forensic Science Area and the development of forensic science infrastructure in Europe.

A wide, heterogeneous, variety of forensic tools are in use or being developed across Europe, making the comparison and exchange of information among forensic laboratories difficult and sometimes impossible, which limits the use of forensic data in cross-border investigations, and in foreign courts. Forensic data need to be quickly available, at an acceptable cost, across borders.

Scope: The most promising forensic techniques need to be developed further, and brought up from experiment to a toolkit usable on a daily basis across Europe. This can be achieved if forensic laboratories from a broad variety of EU countries with diverse legal systems agree on common technical standards and join forces along the following steps:

Phase 0: To prepare an inventory of forensic technologies already available at TRL 4 or 5, and to identify, within all areas covered by the various ENFSI working groups (<http://www.enfsi.eu/>), a subset of technologies to be brought at TRL 8;

Phase 1: To prepare the tenders packages for calls for tenders to build prototypes of a toolkit integrating the above-mentioned subset of technologies, that can be used across Europe; To develop EU-wide benchmarks and validation methods for forensic technologies;

Phase 2: To implement the calls for tenders to generate 2 prototype toolkits from 2 different sources;

Phase 3: To benchmark and validate the 2 toolkits against the methods developed during Phase 1;

Phase 4: To draft a curriculum for pan European training in forensic technologies, and to plan for its assessment across Europe; to initiate the EU-wide certification of the toolkits based on the results of Phase 3.

For grants awarded under this topic SEC-09-FCT-2017, beneficiaries will be subject to the following additional obligations aiming to ensure exploitation of its results:

To ensure that the outcome of the PCP action becomes also available to EU Member State national authorities as well as EU agencies not participating in the PCP for further procurement purposes, the proposal must necessarily state:

(1). Agreement from participating procurement authorities to negotiate, in good faith and on a case-by-case basis, with non-participating procurement authorities that wish to procure a capability or a product fully or partly derived from the PCP action, the use of the information required to run such a procurement process, and solely for that purpose.

(2). Commitment from participating procurement authorities to consult with any legal entity generating information to be released for the purpose set out in paragraph (1), unless contrary to applicable legislation.

(3). Commitment from participating procurement authorities to negotiate the use granted under paragraph (1) on Fair Reasonable and Non-Discriminatory (FRAND) terms.

The respective option on additional exploitation obligations of Article 28.1 of the Model Grant Agreement will be applied.

The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL) 8; please see part G of the General Annexes.

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of € 10million would allow for this topic to be addressed appropriately. Nonetheless this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Medium term:

- Advanced forensic toolkits usable across the EU and providing comparable results admissible in court;

Long term:

- Path towards an EU-wide certification mechanism based on common standards.

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2017: 10 Mio. Euro, Deadline: 24 Aug 2017

Border Security and External Security

SEC-13-BES-2017: Next generation of information systems to support EU external policies

Specific Challenge: The broad range and the complexity of Common Security and Defence Policy civilians' missions make the management of information and of resources critical to decision-making, planning, optimizing for pre-deployment, and deploying capabilities within such missions, and essential to increase the efficiency, visibility and impact of the missions.

The processes, procedures, information systems, and equipment currently committed to such missions by the Member States need to be brought together and coordinated to constitute a common interoperable platform to enhance the EU capacity to play its role.

Scope: This topic is to support the development of a cost-effective common Situational Awareness, Information Exchange and Operation Control Platform.

Cost-effectiveness, and shorter time to implement may result from adapting and exploiting existing approaches and experience in the defence sector, and leveraging from results from relevant projects formerly funded by the EU.

Taking into consideration the findings of the CSA under topic "BES-11-2015: Information management topic 2: Information management, systems and infrastructure for civilian EU External Actions" of the 2014-2015 Secure Societies Work Programme, activities must be structured along the following phases:

Phase 1: Plan the research and the design of the platform, based on common performance levels, requirements and associated specifications for the development of a cost-effective common situational awareness, information exchange and operation control platform for EU civilian external actions developed in BES-11-2015, to be published prior to the opening of the Call in the section "Topic Conditions & Documents" for this topic on the Participant Portal"

Plans must consider integrating existing technologies, data models and methodologies (including pooling and sharing of capabilities) according to design constraints expressed by the buyers, to ensure cost effectiveness and interoperability.

The results of phase 1 should lead to calls for tenders (for the procurement of R&D services) which focus on technologies clearly identified to be part of a unique architecture.

Phase 2: The research and specification work should lead to at least 2 versions of flexible platforms to support, each, several scenarios for EU actions under different framework conditions.

Phase 3: By the end of 2020, the project should have documented, tested, and validated the use of each platform in at least two operational scenarios within actual multinational operations. The participation of relevant and competent authorities in the consortium of buyers is a prerequisite.

Whereas activities will have an exclusive focus on civil applications, coordination with the activities of the European Defence Agency (EDA) may be considered with possible synergies being established with projects funded by the EDA programmes. The complementarity of such synergies should be described comprehensively. On-going cooperation should be taken into account.

For grants awarded under this topic SEC-13-BES-2017, beneficiaries will be subject to the following additional obligations aiming to ensure exploitation of its results:

To ensure that the outcome of the PCP action becomes also available to EU Member State national authorities as well as EU agencies not participating in the PCP for further procurement purposes, the proposal must necessarily state:

(1). Agreement from participating procurement authorities to negotiate, in good faith and on a case-by-case basis, with non-participating procurement authorities that wish to procure a capability or a

product fully or partly derived from the PCP action, the use of the information required to run such a procurement process, and solely for that purpose.

(2). Commitment from participating procurement authorities to consult with any legal entity generating information to be released for the purpose set out in paragraph (1), unless contrary to applicable legislation.

(3). Commitment from participating procurement authorities to negotiate the use granted under paragraph (1) on Fair Reasonable and Non-Discriminatory (FRAND) terms.

The respective option on additional exploitation obligations of Article 28.1 of the Model Grant Agreement will be applied.

The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL) 8; please see part G of the General Annexes.

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of € 10million would allow for this topic to be addressed appropriately. Nonetheless this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Short term:

- At least two prototype platforms deployed and tested in several, different real-life environments.

Medium term:

- Better integration of existing systems and methodologies in situational awareness, information exchange and operation control platform prototypes.
- Solid basis for a full-scale, cost-effective common situational awareness, information exchange and operation control platform for EU civilian external actions.

Long term:

- Improved management of EU resources' allocated to EU civilian external actions.

Type of Action: Pre-Commercial Procurement (PCP)

Budget 2017: 10 Mio. Euro, Deadline: 24 Aug 2017

20. General Annexes ([Link](#))

C. Standard eligibility conditions

1. All proposals must comply with the eligibility conditions set out in the Rules for Participation Regulation No 1290/2013. Furthermore, for actions under this Work Programme proposals/prize applications must comply with the eligibility conditions set out in this Annex, unless they are supplemented or modified in the call conditions.

A proposal/application will only be considered eligible if:

(a) its content corresponds, wholly or in part, to the topic/contest description for which it is submitted

(b) it complies with the eligibility conditions for participation set out in the table below, depending on the type of action:

Eligibility conditions for participation

Research & innovation actions (RIA): At least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

Innovation actions (IA): At least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other.

Coordination & support actions (CSA): At least one legal entity established in an EU Member State or Horizon 2020 associated country. SME instrument

Pre-commercial procurement (PCP) & Public procurement of Innovative solutions (PPI) actions: At least three legal entities. Each of the three must be established in a different EU Member State or Horizon 2020 associated country. All three legal entities must be independent of each other. Furthermore, there must be a minimum of two legal entities which are 'public procurers'¹³ from two different EU Member States or Horizon 2020 associated countries. Both legal entities must be independent of each other.

D. Types of action: specific provisions and funding rates ,

Research and innovation actions (RIA)

Description: Action primarily consisting of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment.

Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

Funding rate: 100%

Innovation actions (IA)

Description: Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

A 'demonstration or pilot' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.

A 'market replication' aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market due to market failures/barriers to uptake. 'Market replication' does not cover multiple applications in the market of an innovation¹⁸ that has already been applied successfully once in the market. 'First' means new at least to Europe or new at least to the application sector in question. Often such projects involve a validation of technical and economic performance at system level in real life operating conditions provided by the market.

Projects may include limited research and development activities.

Funding rate: 70% (except for non-profit legal entities, where a rate of 100% applies)

Coordination and support actions (CSA)

Description: Actions consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of strategic planning, networking and coordination between programmes in different countries.

Funding rate: 100%

Pre-Commercial Procurement (PCP) actions

Description: PCP actions aim to encourage public procurement of research, development and validation of new solutions that can bring significant quality and efficiency improvements in areas of public interest, whilst opening market opportunities for industry and researchers active in Europe. It provides EU funding for a group of procurers ('buyers group') to undertake together one joint PCP procurement, so that there is one joint call for tender, one joint evaluation of offers, and a lead procurer²⁴ awarding the R&D service contracts in the name and on behalf of the buyers group. Each procurer in the buyers group contributes its individual financial contribution to the total budget necessary to jointly finance the PCP, enabling the procurers to share the costs of procuring R&D services from a number of providers and comparing together the merits of alternative solutions paths from a number of competing providers to address the common challenge. The PCP must address one concrete procurement need that is identified as a common challenge²⁵ in the innovation plans of the procurers in the buyers group that requires new R&D and is described in the common specifications of the joint PCP call for tender.

Eligible participants: The buyers group must contain minimum two legal entities which are public procurers that are established in two different Member States or associated countries. Both legal entities must be independent of each other.

The procurers in the buyers group must be responsible for the acquisition and/or regulatory strategy for the targeted innovative solutions and aim to obtain ambitious quality and efficiency improvements in the area of public interest addressed by the PCP, or be entities with a mandate from one or more of such procurers to act on their behalf in the procurement (e.g. central purchasing bodies).

Other entities (e.g. end-users, certification bodies, private/NGO procurers that provide services of public interest and share the same procurement need) whose participation is well justified may participate in additional activities that clearly add value to the action and support the preparation and execution of the PCP or embed the PCP into a wider set of demand side activities.

'Sole participants'²⁶ must indicate which of its 'members' are the procurers contributing to the budget of the proposed joint procurement that satisfy the participation requirements and which are the respective procurement budgets of each of these members that are at the disposal for carrying out the procurement. A sole participant acting as buyers group must have a mandate based on a well-defined procurement need and budget from its procurers to act on their behalf.

Funded activities: Preparation and implementation of the joint PCP (as described in General Annex E). Eligible costs include the price of the R&D services procured via the joint PCP and the costs of the eligible coordination and networking activities and may include in-kind contributions of third parties linked to grant beneficiaries.

Funding rate: The EU contribution will be governed by the Rules for Participation, unless otherwise specified in the relevant call conditions.

The requested reimbursement of the estimated eligible costs of coordination and networking activities should not exceed 30% of the requested grant.

Indirect eligible costs are calculated as a flat rate of 25% of direct eligible costs, excluding direct eligible costs for subcontracting (e.g the price of the PCP procurement) and costs of resources made available by third parties which are not used on the premises of the beneficiary (e.g test equipment).

Public Procurement of Innovative Solutions (PPI) actions

Description: The objective of PPI actions is to enable groups of procurers to share the risks of acting as early adopters of innovative solutions, whilst opening market opportunities for industry. It provides EU funding for a group of procurers ('buyers group') to undertake together one joint PPI procurement, so that there is one joint PPI call for tender launched by the 'lead procurer'²⁴ and one joint evaluation of offers²⁷. Each PPI focuses on one concrete unmet need that is shared by the participating procurers and requires the deployment of innovative solutions that are to a significant extent similar across countries and are therefore proposed to be procured jointly. This means that the innovative solutions procured by all procurers in the buyers group must have the same core functionality and performance characteristics (described in the common specifications for the joint call for tender), but may have additional 'local' functionality due to differences in the local context of

each individual procurer (if framework contracts/agreements are used, this can be reflected in the specific contracts for procuring specific quantities of goods/services for each procurer).

Funded activities: Preparation and implementation of the joint PPI (as described in General Annex E). Eligible costs include the price of the innovative solutions procured via the joint PPI and the costs of the eligible coordination and networking activities and may include in-kind contributions of third parties linked to grant beneficiaries. Cost for procurement of R&D are not eligible.

Eligible participants: the same as for PCP actions described above.

Funding rate: The EU contribution will be governed by the Rules for Participation, unless otherwise specified in the relevant call conditions.

The requested reimbursement of the estimated eligible costs of coordination and networking activities should not exceed 50% of the requested grant.

Indirect eligible costs are calculated as a flat rate of 25% of direct eligible costs, excluding direct eligible costs for subcontracting (e.g. the price of the PPI procurement) and the costs of resources made available by third parties (e.g. test equipment) which are not used on the premises of the beneficiary.

E. Specific requirements for innovation procurement (PCP/PPI) supported by Horizon 2020 grants

This annex applies to PCPs and PPIs for which the tender preparation and/or the call for tender implementation is supported by Horizon 2020. It applies to PCP/PPI actions (General Annex D) and other types of actions with PCP/PPI subcontracting activities.

(i) Specific requirements for Pre-Commercial Procurement (PCP)

The following requirements apply to ensure that the definition and requirements for PCP in the Horizon2020 Rules for Participation Regulation No 1290/2012 and the conditions for the R&D services exemption of the EU public procurement directives²⁸ are respected, that the sharing of IPR rights in PCP takes place according to market conditions and that the Treaty principles²⁹ and competition rules³⁰ are fully respected in the PCP process:

Definitions

- PCPs must comply with the Horizon 2020 definitions:

'Pre-commercial procurement' means procurement of R&D services involving risk-benefit sharing under market conditions, and competitive development in phases, where there is a clear separation between the procurement of the R&D services procured from the deployment of commercial volumes of end-products³¹.

'Risk-benefit sharing under market conditions' refers to the approach in PCP where procurers share with suppliers at market price the benefits and risks related to the IPRs resulting from the R&D. 'Competitive development in phases' refers to the competitive approach used in PCP by procurers to buy the R&D from several competing R&D providers in parallel, to compare and identify the best value for money solutions on the market to address the PCP challenge. To reduce the investment risk for the procurer, reward the most competitive solutions and facilitate the participation of smaller

innovative companies, the R&D is also split in phases (solution design, prototyping, original development and validation / testing of the first products), with the number of competing R&D providers being reduced after each phase subsequent to intermediate evaluations. 'Separation from the deployment of commercial volumes of end-products' refers to the complementarity of PCP, which focuses on the R&D phase before commercialisation, and PPI, which does not focus on R&D but on the commercialisation/diffusion of solutions. Procurers can but are not obliged to procure at market price R&D results from a PCP.

Eligible activities:

A. Preparation stage

The expected outcomes at this stage of a project that prepares a PCP procurement: (1) Completed tender documents based on the Horizon 2020 PCP model contract documents, needs analysis of the end-users, prior art analysis, and open market consultation; and for PCPs executed by a group of procurers, (2) Signed joint procurement agreement confirming the final collaboration modus including the financial commitment of the buyers group to pool resources for the PCP; and (3) Final confirmation of the lead procurer.

B. Execution stage

Main activities for a project that executes a PCP are the implementation of the PCP procurement and of the PCP contracts, including validation and comparison of the performance of the competing PCP solutions to verify fitness for purpose for conversion into permanent service of the solutions. The PCP must be executed either by (a) public procurer(s) possibly in cooperation with private/NGO procurers that provide services of public interest and share the same procurement need, that is (are) responsible for the acquisition and/or regulatory strategy for the targeted innovative solutions and aim to obtain ambitious quality and efficiency improvements in the area of public interest addressed by the PCP, or must be entities with a mandate from one or more of such procurers to act on their behalf in the procurement (e.g. central purchasing bodies).

Other entities (e.g. end-users, certification bodies) whose participation is well justified may participate during A and B in additional activities that clearly add value to the action and support the preparation and execution of the PCP or embed the PCP into a wider set of demand side activities. This includes dissemination of results, removing obstacles for introducing the solutions in the market (e.g. contribution to standardisation, regulation, certification), awareness-raising, experience sharing/training, preparing further cooperation among stakeholders and procurers in future PCPs or PPIs.

Preparation and publication of the open market consultation and call for tender

- In preparation of the PCP call for tender, an open dialogue with potential tenderers and end-users must be held to broach the views of the market about the intended R&D scope. The results of this open market consultation must be duly taken into account to fine-tune the tender specifications, so that the gap between state-of-the art industry development and the procurement needs justifies the need to procure R&D services.
- In respect of the Treaty principles, the PCP contract notice must be published EU wide³⁴ by a public procurer in at least English, offers must be accepted and communication with

stakeholders must be enabled at all stages throughout the PCP in at least English, and all offers must be evaluated according to the same objective criteria regardless of the geographic location, organisation size or governance structure of the tenderers.

- The prior information notice for the open market consultation and the PCP contract notice must be promoted and advertised widely using in particular also Horizon 2020 Internet sites and National Contact Points. The Commission must be informed at least 5 days prior to the expected date of publication of the PIN for the open market consultation and 30 days prior to the expected date of publication of the PCP contract notice and its content. The PCP call for tender must remain open for the submission of tenders for at least 60 days.

Tender documentation and procurement procedure

- The PCP contract notice must contain information on the intended number of R&D providers that will be selected (minimum three) to start the PCP, the number of PCP phases and the expected duration and budget for each PCP phase. The PCP procurement must cover the full PCP life cycle of solution design, prototyping, and original development including testing of a limited volume of test series products/services. Each of the three PCP phases can be split up into further phases if appropriate.
- Procurers should avoid the use of selection criteria based on disproportionate qualification and financial guarantee requirements (e.g. with regards to prior customer references and minimum turnover). Functional/performance based specifications must be used, to formulate the object of the PCP tender as a problem to be solved, without prescribing a specific solution approach to be followed. Evaluation of the tenders must be based on best value for money criteria, not just lowest price.
- The PCP process must be organised while taking care to avoid any conflict of interests, including in the use of external experts. Potential providers of solutions sought for by a PCP cannot be beneficiaries in an action during which this PCP is planned or undertaken.
- The PCP process must require selected R&D providers to locate the majority of the R&D activities for the PCP contract, including in particular the principal researcher(s) working for the PCP contract, in the Member States or Associated Countries.
- In PCP, procurers do not reserve the R&D results exclusively for their own use. An R&D provider generating results in PCP must own the attached IPRs³⁶. The procurers must enjoy royalty-free access rights to use the R&D results for their own use. The procurers must also enjoy the right to grant or to require participating R&D providers to grant non-exclusive licenses to third parties to exploit the results under fair and reasonable market conditions without any right to sublicense. A call-back provision must ensure that if an R&D provider fails to commercially exploit the results within a given period after the PCP as identified in the contract or uses the results to the detriment of the public interest, including security interests, it must transfer any ownership of results to the procurers. The procurers must inform tenderers of the procurers' right to publish - after consultation with each R&D provider - public summaries of the results of the PCP project, including information about key R&D results attained and lessons learnt by the procurers during the PCP (e.g. on the feasibility of the explored solution approaches to meet the procurers' requirements and lessons learnt for potential future deployment of solutions). Details should not be disclosed that would hinder application of the law, would be contrary to the public interest, would harm the legitimate business interests of the R&D providers involved in the PCP (e.g.

regarding IPR protected specificities of their individual solution approaches) or could distort fair competition between the participating R&D providers or others on the market.

- To enable the public procurers to establish the correct (best value for money) market price for the R&D service, in which case the presence of State aid can in principle be excluded, the distribution of rights and obligations between public procurers and R&D providers, including the allocation of IPRs, must be published in the PCP call for tender documents and the PCP call for tender must be carried out in a competitive and transparent way in line with the Treaty principles which leads to a price according to market conditions. The public procurers should ensure that the PCP contracts with R&D providers contain a financial compensation according to market conditions³⁵ compared to exclusive development price for assigning IPR ownership rights to participating R&D providers, in order for the PCP call for tender not to involve State aid.

Contract implementation

- The PCP contract that will be concluded with each selected tenderer must take the form of one single framework agreement covering all PCP phases, which does not involve contract renegotiations after contract award. This framework agreement must contain information on the future procedure for implementing the different phases (through specific contracts), including the format of the intermediate evaluations (incl. evaluation criteria and weightings) after the solution design and prototype development phases.
- For PCPs implemented by a group of procurers, the R&D service contracts are awarded by the lead procurer and all selected tenderers can be paid by the lead procurer, or pro rata by each procurer in the buyers group according to the share of the individual financial contribution of each procurer of the total PCP procurement budget.

(ii) Specific requirements for Public Procurement of Innovative solutions (PPI)

Definitions

PPIs must comply with the Horizon 2020 definitions:

'Public procurement of innovative solutions (PPI)' means procurement where contracting authorities act as a launch customer of innovative goods or services which are not yet available on a large-scale commercial basis, and may include conformance testing. 'Launch customers', also called early adopters, refers to the first approx. 20% customers on the EU Internal Market in the market segment of the procurers that are deploying innovative solutions to tackle the challenge addressed by the PPI procurement. PPI must result in the first application/commercialisation of innovative solutions, meaning that the solutions have to be new to the procurers' market segment or new to the EU Internal Market, and relevant to procurers in other Member States and/or Associated Countries. 'Innovative solutions' are innovative goods or services with better than best available performance levels which suppliers are called to meet through production innovation. This includes solutions that typically have already been (partially) technically demonstrated with success on a small scale, and may be nearly or already in small quantity on the market, but which owing to residual risk of market uncertainty have not been produced at large enough scale yet to meet mass market price/quality requirements and have therefore not widely penetrated the market segment of the procurers yet. This also includes solutions based on existing technologies that are to be utilised in a new and innovative way. PPI does not include the procurement of R&D.

Eligible activities:**A. Preparation stage**

The expected outcomes at this stage: (1) Completed tender documents³⁷ for the PPI, based on needs analysis of end-users, prior art analysis, open market consultation and (if applicable) feedback from activities to verify market readiness prior to deployment which may involve the organisation of conformance testing, / certification or quality labelling of solutions; and for joint PPIs (2) Signed joint procurement agreement confirming the final collaboration modus including financial commitment of the procurers in buyers group for the PPI; and (3) Final confirmation of the lead procurer.

B. Execution stage

Main activities: implementation of the PPI procurement and of the PPI contracts within the timeframe of the project, ensuring deployment of the solutions according to the requirements defined in the preparation stage.

It includes the deployment of the innovative solutions and evaluation of results of operating the procured solutions in real-life operating conditions with a duration that allows for appropriate evaluation of the impact of the innovative solutions on the conversion into permanent service. The PPI must be executed by (a) public procurer(s), possibly in cooperation with private/NGO procurers that have similar procurement needs, that is (are) responsible for the acquisition strategy for the targeted innovative solutions with the aim to obtain ambitious quality and efficiency improvements in the area of public interest addressed by the PPI, or must be entities with a mandate from such procurer(s) to act on its/their behalf in the procurement (e.g. central purchasing bodies).

Other entities (e.g. end-users, certification bodies) whose participation is well justified may participate during stages A and B in additional activities that clearly add value to the action and support the preparation and execution of the PPI or embed the PPI into a wider set of demand side activities. This includes dissemination of results, removing obstacles for introducing the PPI innovations into the market (e.g. contribution to standardisation, regulation, certification), awareness raising and experience sharing/training, activities preparing further cooperation among stakeholders and procurers for future PCPs or PPIs.

Preparation and publication of the open market consultation and call for tender

Unless the PPI is undertaken by (a) procurer(s) that has(have) conducted a PCP in line with the requirements described in section (i) of this General Annex E, to buy the prototypes or limited first test products/services that were developed during the PCP³⁸, the following market consultation and publication obligations apply:

- In preparation of the PPI call for tender, an open market consultation with potential tenderers and end-users must be held to inform the market well in advance of the upcoming PPI and broach the views of the market about the intended scope of the PPI. Information retrieved from this consultation about the gap between perceived procurement needs and on-going industry developments must be taken into account in the PPI tender specifications, so that the PPI duly focuses on 'early adoption' of 'innovative' solutions.

- The market must be informed well in advance³⁹ of the target date by when the PPI is expected to be launched. Market readiness prior to deployment can be verified through the organisation of e.g. conformance testing, certification or quality labelling of solutions.
- The PPI contract notice must be published EU wide by a public procurer in at least English, offers must be accepted and communication with stakeholders must be enabled at all stages throughout the procurement in at least English, and all offers must be evaluated according to the same objective criteria.
- The prior information notices for the open market consultation, early announcement of the target date for launching the PPI, and the PPI contract notice must be promoted and advertised widely using in particular also Horizon 2020 Internet sites and National Contact Points. The Commission must be informed at least 5 days prior to the expected date of publication of the PIN for the open market consultation and 30 days prior to the expected date of publication of the PPI contract notice and its content. The PPI call for tender must remain open for the submission of tenders for at least 60 days.
- Where the WTO Government Procurement Agreement does not apply, participation in PPI tendering procedures must be open on equal terms to bidders from EU Member States and all countries with which the EU has an agreement in the field of public procurement under the conditions laid down in that agreement, including all countries associated to Horizon 2020. Where the WTO Government Procurement Agreement applies, PPI contracts must be also open to bidders from States which have ratified this agreement, under the conditions laid down therein.

Tender Documentation and procurement procedure

- Procurers should avoid the use of selection criteria based on disproportionate qualification and financial guarantee requirements (e.g. with regards to prior customer references and minimum turnover). Functional/performance based specifications must be used, to formulate the object of the PPI tender as a problem to be solved, without prescribing a specific solution approach to be followed. Evaluation of the tenders must be based on best value for money criteria (not just lowest price).
- The distribution of rights and obligations between procurers and the solution provider(s), including the allocation of IPRs, must be published in the PPI call for tender documents. The PPI call for tender must be carried out in a competitive and transparent way in line with the Treaty principles which leads to a price according to market conditions. In order to encourage fair and wide exploitation of results, ownership rights of IPRs generated during the execution of a PPI contract should be assigned to the party generating the IPRs, except in duly justified cases (e.g. when that party is not able to exploit them).
- Procurers must organise their procurement so as to avoid any conflict of interest, including in the use of external experts. Potential providers of solutions sought for by a PPI cannot be beneficiaries in an action during which this PPI is planned or undertaken.
- Procurement procedures covered by the EU public procurement directives that do not involve procurement of R&D can be used. Restricted procedures with shortened timeframes for submission of offers for urgency reasons must not be used.

Contract implementation

- Framework contracts/agreements with lots can be used. For PPIs implemented by a group of procurers, the specific contracts for procuring specific quantities of goods/services for each procurer can be awarded and the selected tenderers can be paid either all by the lead procurer, or by each procurer in the buyers group individually for those quantities of goods/services procured by each procurer individually.