

**Horizon 2020**  
**Work Programmes 2014/15**  
**Update for 2015 Topics**

**Opportunities for Researchers from the  
Socio-economic Sciences and Humanities (SSH)**

**Analysis of SSH-relevant Topics in 2015**

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This Project is funded by the European  
Union under the 7th Framework Programme

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NET4SOCIETY is an FP7 project funded by the EUROPEAN COMMISSION  
THEME 8: Socio-economic Sciences and Humanities  
Coordination and Support Action  
FP7-SSH-2012-2  
SSH.2012.8.8-2

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## Introduction

This document lists current funding opportunities with relevance to Socio-economic Sciences and Humanities (SSH) in various research areas within Horizon 2020.

Horizon 2020 aims at fully integrating SSH in each of its pillars and specific objectives. The framework regulation states that “In relation to the societal challenges, social sciences and humanities are mainstreamed as an essential element of the activities needed to tackle each of the societal challenges to enhance their impact.” SSH is therefore a cross-cutting issue and embedded in the whole framework programme. While SSH research aspects are particularly present in the societal challenge 'Europe in a changing world: Inclusive, innovative and reflective societies', which has the specific objective of supporting social sciences and humanities research, they are also present in all other challenges and in other parts of Horizon 2020.

To assist SSH researchers in identifying funding opportunities, the European Commission (EC) has established a new search engine within its online [“Participant Portal”](#).

Certain topics with substantial SSH aspects have been “flagged” by the EC as [SSH relevant topics](#). The search engine offers the possibility to directly search for these SSH “flagged” topics. It also allows for keyword and full-text searches.

This document presents an update of the “Opportunities” document for the Work Programmes 2014/15, published in December 2013. It compiles the “SSH flagged topics” with deadlines in 2015 and – in addition – also presents the funding opportunities in other parts of Horizon 2020, such as the ERC. It is based on an analysis of SSH relevant topics carried out in the unit of the EC Directorate-General for Research and Innovation that is responsible for Socio-economic Sciences and Humanities.

The document serves as a guideline and is meant to demonstrate the wealth of possibilities for scientists in Socio-economic Sciences and Humanities within Horizon 2020. Included are topics that contain SSH related topics with substantial relevance to the SSH community. SSH aspects of the topics are indicated by bold text. Some topics where SSH research aspects dominate the text can be regarded as “SSH dedicated topics” and they are labelled accordingly. In addition to the information on dedicated SSH topics or topics with substantial SSH research aspects, short information (titles and link to the Participant Portal) on topics with minor SSH aspects are included.

Topics that clearly address e.g. research funding agencies and not researchers, such as ERA-Net topics, were not included.

Researchers are strongly encouraged to screen the Work Programmes themselves, in order not to lose out on research opportunities offered to their specific interest. In any case, the Work Programmes need to be read in more detail to be aware about the overall approach of the Horizon 2020 programme part, the context of the topics, rules of participation and other specific requirements. At the same time, the topic texts may include footnotes with more information, which could not be included in the compiled topic texts within this document.

Of special importance are the “type of action” and the eligibility criteria connected to it. These and any other relevant information can be found in the specific Work Programme chapter and the specific call documents. All the relevant documents can be downloaded from the “Participant Portal”. The specific links are provided for every call and topic in the respective chapters.

## DISCLAIMER

Information on calls might be subject to change. Researchers need to consult the Participant Portal for receiving the latest information on calls.

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## 1. Horizon 2020 Priority: Societal Challenges

### 1.1 Societal Challenge 1 Health, Demographic change and Wellbeing

#### Call – “Personalising health and care”

**Call Identifier:** H2020-PHC-2014-2015

**Publication Date:** 11 December 2013

**Opening Date for 2015 Topics:** 30 July 2014

**Deadlines:** please see the deadlines listed under the individual topics

The Call “Personalising health and care (H2020-PHC-2014-2015)” is divided into several “sub-calls”. The URL links to information on the participant portal are listed under the individual topics.

#### ***PHC 21 – 2015: Advancing active and healthy ageing with ICT: Early risk detection and intervention***

**Specific challenge:** Citizens in an ageing European population are at greater risk of cognitive impairment, frailty and social exclusion with considerable negative consequences for their quality of life, that of those who care for them, and for the sustainability of health and care systems.

The earlier detection of risks associated with ageing, using ICT approaches, can enable earlier intervention to ameliorate their negative consequences.

**Scope:** Proposals should focus on early risk detection and intervention: specifically ICT based solutions which support active and healthy ageing by enabling early detection and minimisation of risks associated with ageing, including (but not limited to) cognitive impairment, frailty, depression and falls.

Proposals should **demonstrate the link between changes in behaviour and subsequent negative consequences of ageing by unobtrusive behavioural sensing, and large scale collection of data readily available in the daily living environment of older individuals.**

Proposals should also design ICT based interventions countering identified risks, as well as innovative treatments and therapies based on early detection.

Proposals should **build on multi-disciplinary research involving behavioural, sociological, health and other relevant disciplines, and on stakeholder engagement in order to be driven by relevant user needs to ensure end-user acceptance** (including gender aspects). **Full account should be taken of relevant data protection aspects.**

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:

- Evidence for the benefits of risk detection and intervention, based on proof of concept and involvement of relevant stakeholders
- Clear improvements of outcomes for individuals, care systems and wider society from new therapies and interventions based on early risk detection in comparison with current practices.
- Global leadership in ICT based innovation for active and healthy ageing.

Type of action: Research and innovation actions

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-phc-2015-single-stage.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2268-phc-21-2015.html>

Deadline: Single Stage – 21 April 2015 (17:00:00 Brussels local time)

***PHC 25 – 2015: Advanced ICT systems and services for Integrated Care***

Specific challenge: Research on new models of care organisation demonstrates that advanced ICT systems and services may have the potential to respond to, amongst others, the increasing burden of chronic disease and the complexity of co-morbidities and in doing so contribute to the sustainability of health and care systems.

One challenge in re-designing health and care systems is to develop integrated care models that are more closely oriented to the needs of patients and older persons: multidisciplinary, well-coordinated, anchored in community and home care settings, and shifting from a reactive approach to proactive and patient-centred care.

Scope: Proposals should go beyond the current state of art in tele-health and tele-care systems by developing new approaches for integrated care supported by ICT systems and services. **Proposals should address barriers from technological, social and organisational points of view in the following domains:**

- Development of robust, privacy compliant, accurate and cost-effective systems that facilitate monitoring of patient status, patient activity and compliance with therapy;
- Fusion, analysis and interpretation of patient and care provider data, to improve decision making among formal and informal care givers and patients;
- Multi-channel and multi-actor interaction and exchange of knowledge in integrated care settings, across digital collaborative platforms;
- **Development of patient-oriented services to support patient empowerment, self-care, adherence to care plans and treatment at the point of need;**
- **Development of new patient pathways, new training programmes for the care workforce and new organisational models to improve the coordination of care services as well as the skills and collaboration of health professionals, social carers and informal care givers;**
- Personalisation of care management programmes to specific characteristics of patients' profiles, through analysis of multimodal data, risk stratification algorithms for

chronic diseases and multi-morbidity conditions, predictive algorithms of patient's status, and personalisation tools for patients and;

The design process of such ICT systems and services should entail participation of a wide range of users, developers and stakeholders, including medical doctors, nurses, social workers, patients as well as programmers and interaction designers. Gender and ethical issues should be paid due attention. Validation should provide proof-of-concept with both qualitative parameters and quantitative success measures.

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 5 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 admissions and days spent in care institutions, and improvements in the daily activities and quality of life of older persons through effective use of ICT and better coordination of care processes.
- Strengthened evidence base on health outcomes, quality of life and care efficiency gains from the use of ICT in integrated care.
- Improved cooperation and secure information exchange among the actors involved in health, social and informal care services.
- Improved interaction between patients and their carers, and more active participation of patients and their relatives or other informal care givers in care processes.
- Improved usability and adaptability of ICT systems for integrated care, taking account of the complex relationship between digital technologies and their social and human context of application.
- Reinforced medical knowledge with respect to management of co-morbidities.
- Strengthened European industrial position in ICT products and services by measurable indicators such as new business areas, start-ups and protected intellectual property

Type of action: Research and innovation actions

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-phc-2015-single-stage.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2269-phc-25-2015.html>

Deadline: Single Stage – 21 April 2015 (17.00.00 Brussels local time)

***PHC 27 – 2015: Self-management of health and disease and patient empowerment supported by ICT***

Specific challenge: Empowering citizens and patients to manage their own health and disease can result in more cost-effective healthcare systems by enabling the management of chronic diseases outside institutions, improving health outcomes, and by encouraging healthy citizens to remain so. Several clinical situations would be prevented or better

monitored and managed with the participation of the patient him or herself. Care sciences may complement the medical perspective without increasing the cost.

**This requires research into socio-economic and environmental factors and cultural values, behavioural and social models, attitudes and aspirations in relation to personalised health technologies,** mobile and/or portable and other new tools, co-operative ICTs, new diagnostics, sensors and devices (including software) for monitoring and personalised services and interventions which promote a healthy lifestyle, wellbeing, mental health, prevention and self-care, improved citizen/healthcare professional interaction and personalised programmes for disease management.

Support for knowledge infrastructures is also required. Implementation of programs or applications for different target populations to capture gender- and age-dependent differences in health, behaviour and handling of devices is encouraged.

This topic is a continuation of PHC 26 – 2014) giving more and different opportunities to develop solutions and services for self-management of health and diseases.

Scope: Solutions should be developed and tested with the use of open innovation platforms such as large scale demonstrators for health and service innovation. Gender and ethical issues should be duly considered. Proposals should involve health procurers and support them in their efforts to lower costs, and reduce difficulties associated with limited numbers of health professionals by utilising the capacity and potential of the patient as a co-producer of health. Proposals should use pre-commercial procurement to maximise the engagement of innovation in healthcare organisations following the community building and road-mapping activity in the seventh framework programme call 10 CSA on innovation in health procurement.

**Proposals should aim to empower patients to manage their pre-existing conditions. Health management will be addressed holistically, including healthy lifestyle interlinked with disease management, placing the patient in the centre and putting increased emphasis on health education,** secondary prevention and self-management of individual conditions, including co-morbidities.

Proposals should address all of the following elements a) personalised guidance to patients based on their profiles and the use of wearable/portable devices and improved individual/healthcare-professional interaction, b) engagement of patients as active members in managing their diseases, in particular addressing chronic diseases, co-morbidities, treatment adherence, rehabilitation, self-diagnostics and self-care and c) decision support systems interoperable and/or maintaining integrity with electronic health records.

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 5 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:

- Improving the participation of the patient in the care process.
- Improving the management of a disease by reducing the number of severe episodes and complications.
- Increasing the level of education and adherence of individuals, patients and care givers related to application of ICT for personalised care.
- Improved interaction between patients, their relatives, providers of health-, social-, and informal care givers.
- Strengthened evidence base on health outcomes, quality of life, care efficiency gains and economic benefits from the use of ICT in new care models.

- Reinforced medical knowledge with respect to efficient management of comorbidities.
- Increased confidence in decision support systems for disease/patient management.
- Involvement of health care providers/authorities with increased commitment in the deployment of innovative services empowering the patient.

Type of action: Pre-commercial procurement co-fund actions.

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-phc-2015-single-stage.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2270-phc-27-2015.html>

Deadline: Single Stage – 21 April 2015 (17.00.00 Brussels local time)

## 1.2 Societal Challenge 2 - Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

### Call – “Sustainable Food Security”

**Call Identifier:** H2020-SFS-2014-2015

**Publication Date:** 11 December 2013

**Deadlines:** please see the deadlines listed under the individual topics

The Call “Sustainable Food Security (H2020-SFS-2014-2015)” is divided into several “sub-calls”. The URL link to information on the participant portal is listed under the individual topics.

#### **SFS-1-2014/2015: Sustainable terrestrial livestock production:**

*This topic is divided into three sub-topics, out of which only one is relevant to 2015: "SFS-01c-2015: Assessing sustainability of terrestrial livestock production".*

Specific Challenge: Due to the increasing demand for animal derived food and the mounting pressure over land use, further intensification and expansion of animal production is expected. Development of the livestock sector at EU and global level is challenging as it puts pressure on the environment, human health and the welfare of animals within the systems. Climate change is an additional pressure to the sustainability (e.g. productivity, health) of livestock systems. Increasing efficiency is required, while decreasing the environmental footprint and increasing quality, e.g. nutritional value. Livestock farming systems generate valuable products for human consumption including some from resources that cannot

otherwise be converted into food (e.g. grass-based systems). They support the development of rural communities. Extensive livestock systems can contribute to the management and maintenance of ecosystems and may increase biodiversity.

Means to improve sustainability and productivity of terrestrial livestock systems need to be sought through breeding, nutrition and health. New phenotypes linked to sustainable animal productivity could be developed and integrated into breeding schemes. Precision feeding could increase production efficiency by adapting accurately the needs and the delivery of feed to individual animals. The development of new or alternative feeds, in particular as protein sources, has the potential to minimise reliance on imports and increase European self-sufficiency. Livestock diseases reduce the efficiency of animal production and they have a major impact in terms of economic costs and animal welfare. Vaccination can be an efficient way to control diseases and to reduce the use of antimicrobials. Deeper knowledge is required to develop safer, cheaper, novel, multivalent and more efficient vaccines.

**Farming systems need to be (re)designed in a holistic manner to best reconcile the various demands concerning productivity, sustainability and societal values, for now and the future.**

Scope: Proposals should address the following issue:

#### **SFS-01c-2015: Assessing sustainability of terrestrial livestock production**

Proposals should undertake **an assessment of the sustainability and potential delivery of ecosystem services, social services, resilience, competitiveness and possible trade-offs of diverse EU animal production systems**. The assessment should be holistic, encompass the main facets of the concerned systems, including international trade, extend to the dimensions of supply chains and territories and elaborate necessary indicators. **Proposals should extend to socio-geographic and demographic changes** of the concerned farming community and projections, **as well as the expected place of animal products in the society and diets in the future**, looking across the whole food chain. Proposals should establish a farm-level observatory and knowledge exchange networks on the sustainability of livestock linking with the European Innovation Partnership with a focus on innovative system solutions for short and long-term needs. Proposals should combine socio-economic work and case studies and sketch a roadmap for further research and policy making. Proposals should fall under the concept of 'multi-actor approach'.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 7–9 million for (A) would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact: Proposals should show how some, or all, of the following impacts will be achieved:

- New efficiency traits to be incorporated into breeding schemes of various farm species enabling selection of animals more adapted to environmental changes
- Make Europe frontrunner in re-use of by-products and protein rich resources for feed
- Minimize risk to public health by preventing and controlling animal diseases and reducing the use of antibiotics in the "One health" perspective
- Increased level of animal welfare
- Increased efficiency and profitability of animal agriculture
- Improved overall sustainability and innovative capacity of the livestock sector
- **Increased societal acceptance**

Type of action: Research and innovation actions

Call Information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sfs-2015-2.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2336-sfs-01c-2015.html>

Deadline: Stage 1: 24 February 2015 (17.00.00 Brussels local time), Stage 2: 11 June 2015 (17.00.00 Brussels local time)

**SFS-11-2014/2015: Implementation of an Ecosystem-based approach for European aquaculture**

*This topic will be divided into two sub-topics, out of which only one is relevant to 2015: “SFS-11b-2015: Consolidating the environmental sustainability of European aquaculture”.*

Specific challenge: Access to space and high quality water are essential for European aquaculture operators. In particular, the lack of spatial planning is considered as one of the factors hindering the expansion of European aquaculture. Therefore, establishment of reliable (inland, coastal and offshore) spatial plans should be crucial for facilitating investment and development of the sector. Aquaculture also needs a high quality aquatic environment for ensuring the production of safe and nutritious seafood products. Subsequently, human activities, including operations of some specific aquaculture segments, that might affect negatively (e.g. through the impact of chemical, antibiotics, organic wastes, etc.) fresh water and marine ecosystems might also compromise the sustainability of European aquaculture. Therefore, ensuring the environmental sustainability of aquaculture practices is essential not only for guaranteeing compliance with the existing regulatory framework but also for improving the image of the European aquaculture sector. This should ultimately secure that the maximum economic potential of growth and employment is reached by the sector.

Scope: Proposals should compile existing and develop new tools for predicting and assessing the carrying capacity of the ecosystems at different geographic scales, taking into account specificities of the main European aquaculture segments and diversity of ecosystems in the main producing regions. They should also focus on improving existing and/or developing new integrated operational tools for the timely and **cost-efficient** environmental impact assessment of aquaculture production, in line with the requirements for the allocation of licenses for aquaculture businesses in the main producing European countries, as well as, for the implementation of the requirements set by the Marine Strategy Framework Directive in relation to aquaculture operations. They should also **develop cost-efficient management tools** and practices for improving the environmental sustainability of European aquaculture, including forecasting and modelling tools that can support and inform decision support systems, in situ observation technologies and early sensing and alarming systems. They should also develop adequate methodologies and assess the environmental and ecological services that different segments of the sector might provide.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 7.5 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: Proposals should show how some, or all, of the following impacts will be achieved:

- **Support the Member States in establishing a coherent and efficient regulatory framework, implementing the Strategic Guidelines** for the sustainable



development of European Aquaculture and delivering a framework for sustainable growth.

- **Support the development and implementation of coastal** and marine spatial planning.
- **Availability of new and efficient operational tools allowing national administrations to reduce the cost** and time for delivering licenses for aquaculture operators.
- Contribution in creating enabling conditions for facilitating investments in European aquaculture through the provision of better observation, forecasting and decision support technologies.
- Availability of tools for reliable prediction and monitoring of environmental impacts of aquaculture operations.
- Strengthening the environmental sustainability of the aquaculture sector and enhancement of its image.
- Availability of tools for quantification of environmental services provided by the aquaculture sector

Type of action: Research and innovation actions

Call Information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sfs-2015-2.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2341-sfs-11b-2015.html>

Deadline: Stage 1: 24 February 2015 (17.00.00 Brussels local time), Stage 2: 11 June 2015, (17.00.00 Brussels local time)

### ***SFS-16-2015: Tackling malnutrition in the elderly***

Specific challenge: **Population ageing in Europe poses major demographic and socioeconomic challenges** which are expected to increase over the coming decades. The ageing process itself usually does not usually cause malnutrition in healthy and active elderly people with appropriate lifestyles. However, changes in body composition and organ function, the ability to eat or access food, inadequate dietary intake and the partial loss of taste and smell are associated with ageing and may contribute to malnutrition. Malnutrition and weight loss, which tend to develop more readily in the elderly, may significantly affect the **quality of life**, may impact on physical and **psychological functioning** and can have multiple effects such as immobility, skeletal disorders, insulin resistance, hypertension, atherosclerosis and metabolic disorders. The elderly are also among the groups most vulnerable to malnutrition in crisis and disaster situations. Providing an adequate diet with all essential nutrients, and promoting physical activity are essential for healthy ageing.

Scope: Based on a better understanding of the mechanisms of the ageing process, dietary strategies, dietary recommendations and new food products to prevent and treat malnutrition in the elderly (living at home, in nursing homes, hospitals, and/or emergencies) should be developed with the aim of preventing functional decline and improving appetite, health and **quality of life of the elderly**. A holistic strategy to prevent malnutrition should be developed, and could include research on the role of, amongst other, nutrients in the human organism (their bioavailability and interactions), the gut microbiome, food preparation at home, the



physical and **social environment (such as social networks)**. Proposals should address responsible research and innovation aspects by taking account of specific nutritional requirements, **dietary behaviours and preferences**, sensory aspects, **the gender dimension, ethical factors, socio-economic factors and/or cultural aspects**. Proposals could include the development of smarter and more intelligent devices for the monitoring of food intake. In line with the objectives of the EU strategy for international cooperation in research and innovation and in particular with the implementation of the International KBBE Forum priorities, proposals are encouraged to include third country participants, especially those established in Australia, Canada, Japan, New Zealand and/or the United States. Relevant stakeholders, including industry and SMEs, should be involved.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 7 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:

- Design and development of evidence-based dietary strategies, dietary recommendations and new food products that support active and healthy ageing and help prevent malnutrition in the elderly.
- Complementary support to the research and innovation activities carried out in the European Innovation Partnership on Active and Healthy Ageing and to the development of the European Research Area through the Joint Programming Initiative 'A Healthy Diet for a Healthy Life'.
- A strengthening of the EU's key global market position in innovative products and services for the elderly.
- A better understanding of the interaction between nutrition and the ageing process through international collaboration and exchange of knowledge/best practice.

Type of action: Research and innovation actions

Call Information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sfs-2015-2.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2343-sfs-16-2015.html>

Deadline: 03 February 2015 (17.00.00 Brussels local time)

***SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security***

Specific challenge: The contribution of family farms and in particular smallholder farms to food and nutrition security (FNS) has been gaining global attention, both in Europe and in the context of less developed countries. While small farms, as well as other small and micro-sized food businesses, have an important role to play in supporting the local economy and food security in rural areas, this is often placed in contrast with the perceived benefits of large farm structures. This comparison, arguing for the benefits of economies of scale tends to downplay the efficiency of smallholdings, averts considerations for complementarities between agrofood systems, neglects the environmental and social aspects of sustainability such as the ability of small farms to maintain more diverse mixed production systems and the role of labour-inclusive family farms in maintaining an adequate rural/urban balance and

enabling territorial development – a challenge for countries facing a strong rural population growth. It is therefore important to gain a better understanding of the **contribution of small farms and food businesses to FNS and their resilience to shocks in an increasingly globalised and uncertain world**. In particular, it must be understood whether small and family farms may contribute to a **'right balance' between technical, economic, environmental and social sustainability**, taking into account the linkages with the up- and downstream sectors and in particular small and medium sized enterprises differentiating between the urban and rural dimensions of FNS, and identifying the requirements with regard to infrastructure (incl. labour, transport, energy, communication, food-safety, etc.), supply chain (local/regional markets), technical pathways (focus on production and transformation at farm level) and governance (local/global).

Scope: Proposals should thoroughly **assess the role of family farms and other small food businesses and particularly those with small structures in achieving sustainable FNS, evaluating the means by which such entities could respond to the expected increase in demand for food, feed and fibre under ever scarcer resources, as well as providing evidence and developing tools to guide decision makers in the choice and combination of intensification pathways**. Research should identify the optimal enabling environment for small and family farms and businesses to accomplish the aforementioned role on FNS and the multiple dimensions of sustainability with respect to infrastructure, supply chain and governance needs. Foresight activities should be carried out to project the potential weight and role of the aforementioned entities in a few decades' time, regarding the various dimensions of sustainability, including the challenges of less developed countries' growing rural densities.

Research work should build upon existing knowledge and take into account activities related to the 2014 International Year of Family Farming and Smallholder Farming. In line with the objectives of the EU strategy for international cooperation in research and innovation and in particular with the implementation of the EU-Africa dialogue, proposals are encouraged to include third country participants, especially those established in Africa and Asia.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 4-5 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:

- Provide a better understanding of the role of small and family farms and small food businesses in meeting the sustainable FNS challenge (across its various dimensions)
- encompassing the implications on small and medium size businesses along the supply chain and within the context of demographic developments
- help better tailoring international cooperation and agricultural research for development to the agro-food sector
- contribute to policy making for the identification of new development models for the agro-food sector.

Type of action: Research and innovation actions

Call Information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sfs-2015-2.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2344-sfs-18-2015.html>

Deadline: 03 February 2015 (17.00.00 Brussels local time)

***SFS-20-2015: Sustainable food chains through public policies: the cases of the EU quality policy and of public sector food procurement***

Specific challenge: In 2012 a new Regulation on the quality schemes for agricultural products and foodstuffs was adopted in the EU. Important pillars of the EU quality policy are the 'protected designation of origin' (PDO)/'protected geographical indication' (PGI)/'traditional specialty guaranteed' (TSG) schemes, a scheme for optional quality terms and organic food and farming. They are meant to maintain a large variety of agricultural products, reflecting the diversity of EU agriculture and to allow remunerative prices to producers. The policy is expected to play an important role especially in disadvantaged and remote territories where agriculture is a prominent economic activity. On the other hand, the European public sector is emerging as a powerful actor in the food chain notably through public procurement policies which can create new markets and foster the development of an '**economy of quality**'. Innovative approaches in this area are multiplying in various parts of Europe from different types of governance (communal, regional, etc.). These approaches cater for different objectives such as improving the nutritional balance of school canteens, contributing to education on food or fostering the procurement from local producers. Hence they have the potential to **deliver economic, environmental and social benefits (including health) to the society**.

Scope: Proposals should investigate the impact of both the **quality policy and public sector food procurement policies** (including "school schemes") on the overall sustainability of rural territories and their role in fostering the provision of public goods as well as the impact of public food procurement on balanced nutrition. They should extend to short food supply chains which are impacted by both types of policies and assess their **impact on the rural economy**. Proposals should investigate the contribution and impact of the quality policy to the various objectives of the agricultural and rural development policies ranging from social and territorial cohesion to consumer confidence. **Costs related to the policy** and possible routes to improve its delivery should be researched. Proposals should cover a large array of PDOs and PGIs, organic products (including agriculture and aquaculture products), and short food supply chains based on regional sourcing. On food procurement policies, proposals should review existing practices, identify constraints to their development, investigate how communities of practice and partnerships involving a broad range of stakeholders can be utilised and shed light on its impact on territorial development. A large review of existing schemes should allow elaborating good practices, decision tools and recommendations for scaling up. Relevant data on short food supply chains should be gathered, which should allow the assessment of their contribution to the agricultural and rural economy. Relevant knowledge platforms should be set up. Research should involve relevant categories of stakeholders and cover an appropriate number of EU Member States, Associated Countries and Third countries. Proposals should fall under the concept of 'multi-actor approach'. This action allows for the provision of financial support to third parties in line with conditions set out in Part K of the General Annexes.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 7 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:

- provide insight into the effects of the **EU quality policy and public sector food procurement policies** on sustainability and on the promotion of a healthy diet

- allow to better design and **implement these policies** and to foster their delivery to the overall sustainability of agriculture and the rural economy
- clarify how these approaches, through the creation of new quality markets, can foster the development of local food chains.

Type of action: Research and innovation actions

Call Information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sfs-2015-2.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2345-sfs-20-2015.html>

Deadline: 03 February 2015 (17.00.00 Brussels local time)

### Call - "Blue Growth: Unlocking the potential of Seas and Oceans"

**Call Identifier:** H2020-BG-2014-2015

**Relevant Sub-Call for 2015 Topics listed below:** H2020-BG-2015-2

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-bg-2015-2.html>

**Planned Opening Date:** 25 March 2015

**Deadlines for 2015 Topics:** Stage 1: 03 February 2015 (17.00.00 Brussels local time), Stage 2: 11 June 2015 (17.00.00 Brussels local time)

#### **Topics with minor relevance to SSH:**

##### ***BG-1-2015: Improving the preservation and sustainable exploitation of Atlantic marine ecosystems***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2466-bg-01-2015.html>

Deadline: Stage 1: 03 February 2015 (17.00.00 Brussels local time), Stage 2: 11 June 2015 (17.00.00 Brussels local time)

##### ***BG-2-2015: Forecasting and anticipating effects of climate change on fisheries and aquaculture***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2467-bg-02-2015.html>

Deadline: Stage 1: 03 February 2015 (17.00.00 Brussels local time), Stage 2: 11 June 2015 (17.00.00 Brussels local time)

## Call – “Innovative, Sustainable and Inclusive Bioeconomy”

**Call Identifier:** H2020-ISIB-2014-2015

**Opening Date:** 25 July 2014

**Deadlines:** please see the deadlines listed under the individual topics.

The Call “Innovative, Sustainable and Inclusive Bioeconomy (H2020-ISIB-2014-2015)” is divided into several “sub-calls”. The URL link to information on the participant portal is listed under the individual topics.

### ***ISIB-3-2015: Unlocking the growth potential of rural areas through enhanced governance and social innovation***

Specific challenge: Smart, inclusive and sustainable growth in the EU cannot be achieved without substantial contribution of its rural areas. The key challenge is to foster a balanced development of rural areas by enabling them to capitalize on their distinctive territorial capital and thus 'turn diversity into strength'. Social innovation relates to the development of new forms of organisations and interactions to respond to societal challenges. It is a collective learning process in which different social groups and actors participate and which results in new skills and practices as well as in new attitudes, values, behaviours and governance mechanisms. Although social innovation is considered as an enabler for a transition towards sustainable agriculture and rural development, there is limited empirical evidence of the extent and outcomes of social innovations and on the supporting conditions. Little is known as to how to support social innovation, in particular in marginalised rural areas where the social structure is most fragile. This also raises the challenge of promoting institutional capacity building in these areas, at different levels, to develop the social capital and skills required to support the creation of successful social innovation.

Scope: Proposals should undertake a thorough analysis of social innovation in agriculture, forestry and rural development, encompassing its complexity and various dimensions as well as its impact on unfolding the territorial capital in different regional contexts. Proposals should establish appropriate methods for the evaluation of **social innovation**. Attention needs to be given to different **learning arrangements** (e.g. multi-actor networks, producer-consumer association, hybrid innovative networks, territorial alliances) as well as to **innovative governance mechanisms** at various levels, and their potential implications for social innovation. Proposals should also address the role of different **policy instruments**, other relevant incentives and diverse entities (public/private, local/non local, active citizens, etc.) as catalysts/constraints to social innovation. Proposals should explain why regions with similar initial conditions display diverging paths. Activities should cover diverse types of rural areas across the EU and Associated Countries and non-European Mediterranean countries. In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to include third country participants, especially those established in Mediterranean countries.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 6 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:

- **clarify the different dimensions of social innovation and its dynamics in agriculture, forestry and rural development**
- **Identify pathways to unfold the territorial capital** of rural regions and thus shape sustainable development trajectories in different types of rural areas
- support more sustainable agri-food and forestry systems and rural development, thus contributing in the medium term to smart, inclusive and sustainable growth in rural areas
- **improve territorial governance** and pave the way for an integrated approach to rural development (i.e. ensuring effective mechanisms to coordinate different policies and establish appropriate linkages with other areas).
- **deliver analyses of different innovative governance mechanisms** with respect to social innovation in different contexts
- **allow policy makers and the local communities to improve** the formulation and delivery of relevant policies as well as to shape such programmes that explicitly foster the creation of sustainable social innovations.

Type of action: Research and innovation actions

Call Information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-isib-2015-2.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2301-isib-03-2015.html>

Deadline: Stage 1: 03 February 2015 (17.00.00 Brussels local time), Stage 2: 11 June 2015, (17.00.00 Brussels local time)

**Topics with minor SSH relevance in 2015:**

***ISIB-12c-2015: Monitoring and mitigation of agricultural and forestry greenhouse gases (GHG)***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2297-isib-12c-2015.html>

Deadline: 11 June 2015 (17.00.00 Brussels local time)

### 1.3 Societal Challenge 3 - Secure, clean and efficient energy

#### Call – “Energy Efficiency”

**Call Identifier:** H2020-EE-2014-2015

**Publication Date:** 11 December 2013

**Opening Date for 2015 Topics:** 10 December 2014

**Deadline for 2015 Topics:** 4 June 2015 (17.00.00 Brussels local time)

The Call “Energy Efficiency (H2020-EE-2014-2015)” is divided into several “sub-calls”. The URL link to information on the participant portal is listed under the individual topics.

#### ***EE 5 – 2014/2015: Increasing energy performance of existing buildings through process and organisation innovations and creating a market for deep renovation***

Specific challenge: The Energy Performance of Buildings Directive and the Energy Efficiency Directive contain provisions to increase renovation rates, especially for public buildings. However non-technological barriers hamper the implementation of these provisions and also prevent other market actors in the residential and private sectors from following the example that the public sector is expected to set.

The heterogeneity of the construction industry, the large number of companies and the relative lack of quality standards, inspection protocols and guidelines limit the number and impact of large-scale energy efficiency investments and the effective integration of renewable energies. Many buildings are not commissioned and/or operated properly and energy performance certificates have not yet gained full public acceptance. The pressure to build or renovate towards nearly zero-energy buildings means that the building sector needs to significantly upgrade its working practices.

In addition there is a need to develop a marketplace for deep renovation packages. Currently, there is limited articulated demand from building owners for significant energy performance improvements in existing buildings. Supply side, demand side and public authorities need to cooperate and find solutions that drive compelling offers for building owners, and simultaneously lift as many barriers as possible.

Scope: Proposals should **focus on removing market barriers**. They should focus on **coherent interventions across issues and across actors to drive structural improvement in market conditions (i.e. those able to significantly influence buildings energy use in different sectors including building owners/operators, public authorities, construction and maintenance industry, housing associations, developers, financiers, etc.)**. All building types may be covered, however the main focus should be on existing buildings, in particular **the most inefficient ones, as they represent the largest savings potential**. Proposals should create synergies by incorporating at least one of the following three elements:

- **Driving product and process innovation in the construction sector to improve product offerings by creating an early market.**
- **Development, testing and/or implementation of regulations; property valuation techniques; decision-making tools for renovation strategies; quality standards; and/or inspection and monitoring mechanisms to bridge the gap between expected and actual energy performance.**



- **Enabling conditions to finance deep renovation of buildings (including through process and organisation innovation).**

Optional additional activities may include:

- Support for the implementation of the recast Energy Performance of Buildings Directive in Member States by promoting dialogue and exchange of best practices; complementing activities of the EPBD Concerted Action.
- Support to the implementation of the Energy Efficiency Directive as regards its provisions on 'long-term strategies for mobilising investment in the renovation of the national stock of residential and commercial buildings' (Article 4) and the renovation of central government buildings' (Article 5); complementing activities of the EED Concerted Action. Proposals should not replace activities that are under the responsibility of Member States but add European value to these activities (e.g.
- Methods to increase the share of on-site and nearby-generated renewable energy in order to achieve nearly zero-energy buildings performance levels (or better).

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 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.

Expected impact: Proposals triggering the renovation of existing buildings towards high energy performance, or raising quality and compliance, should result in energy savings of at least 25 GWh/year per million EUR of EU support. Impacts should also be measured in terms of investment made by stakeholders in sustainable energy; better implementation of energy-efficiency policies; and number of policy makers or building owners/operators influenced.

Type of action: Coordination and Support Actions

Call information:

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3\\_marketuptake.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3_marketuptake.html)

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2371-ee-05-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

### ***EE 7 – 2014/2015: Enhancing the capacity of public authorities to plan and implement sustainable energy policies and measures***

Specific Challenge: Public authorities play a key role in the reduction of EU energy consumption and the increase of renewable energy capacity. For instance Member States must produce and implement National Energy Efficiency Action Plans (NEEAPs) and National Renewable Energy Action Plans. They also have the obligation to produce detailed action plans in specific sectors such as the renovation of buildings or the application of high-efficiency cogeneration and efficient district heating and cooling systems. Local and regional authorities are also developing plans at their own level and other public authorities play an important role too; national energy regulatory authorities for instance should provide incentives for grid operators (heat, cold, and electricity) to enable network users to produce renewable energies and implement energy efficiency measures.

Doing this requires multidisciplinary skills to e.g. assess different cross-sector sustainable energy options, according to technical, environmental, economic and social criteria. It also



requires skills to engage stakeholders in both the definition and implementation of the solutions, and to secure funding.

The situation regarding the availability of these skills varies from country to country; e.g. while certain public authorities have a long tradition of using energy performance contracting, others have not tried yet; or while a few Member States oblige large cities to develop urban mobility plans, such plans are not common practice in other countries.

**Scope:** Proposals empowering public authorities **to develop, finance and implement ambitious sustainable energy policies and plans (for instance under the Covenant of Mayors initiative), on the basis of reliable data and analyses. Public actors should be encouraged to look at sectors with high energy saving potential such as buildings, industry and urban mobility. The geographical coverage should be well justified on the basis of European added-value.** Capacity building should be an integral part of project proposals.

The following actions are part of the scope:

- Raising the capacity of Member **States to fulfil their obligation under the new Energy Efficiency Directive.**
- Enabling national energy regulatory authorities **to address demand issues** (e.g. demand response, tariff design, assessment of generation adequacy assessment).
- Capacity building on integrated energy, transport mobility and land-use planning at community and city-level.
- Supporting public authorities in better linking up local, regional and national levels for delivering integrated **sustainable energy action planning and projects to achieve synergies and economies of scale.**
- **Establishing new or exploiting existing networks and other mechanisms to spread knowledge and facilitating the exchange of experiences** and best practice on sustainable energy.
- Large-scale capacity building on **innovative financing** to specific groups of public authorities, such as national, local and regional authorities, energy agencies, structural and cohesion funds managing authorities.
- Defining and implementing standard energy saving packages for households, public sector and industry in particular under Article 7 of the Energy Efficiency Directive.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 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.

**Expected impact:** Impacts must be measured in terms of number of public officers influenced and number of new or improved policies and plans. The number of final consumers impacted should also be measured in millions of people. In addition, proposals targeting governments should also demonstrate that they accelerate the implementation of the new Energy Efficiency Directive.

**Type of action:** Coordination and Support Actions

**Call information:**

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3\\_marketuptake.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3_marketuptake.html)

**Topic information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2372-ee-07-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

***EE9 – 2015: Empowering stakeholders to assist public authorities in the definition and implementation of sustainable energy policies and measures***

Specific challenge: While public authorities have an important role to play to develop energy efficiency policies and plans, the latter require the full involvement of private stakeholders and the civil society for their effective implementation. However there is a general lack of capacity and coordination among those stakeholders to guarantee their full involvement and to effectively convert policies and plans into concrete actions.

Scope: **Proposals should target specific actors among a wide spectrum of stakeholders (utilities, industry, financing institutions, non-governmental organisations, consumer associations, interest groups, trade unions, etc.). They should provide large-scale capacity building or engagement activities to those specific groups playing a key role in the definition and/or implementation of sustainable energy policies and measures initiated by public authorities.** Proposals should demonstrate a strong European added value and put in place mechanisms ensuring the continuation of the activities beyond the project duration.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 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.

Expected impact: Each project must prove to influence hundreds of stakeholders playing a key role in the definition and successful implementation of national, regional or local policies. As a result the number of final consumers impacted should be measured in thousands of people.

Type of action: Coordination and Support Actions

Call information:

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3\\_marketuptake.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3_marketuptake.html)

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2373-ee-09-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

***EE 10 – 2015: Consumer engagement for sustainable energy***

Specific challenge: Residential use of energy is responsible for 28% of EU energy consumption. The barriers to consumer energy saving have been known for more than 30 years but are still present, in particular split incentives (e.g. tenants vs. landlords), lack of information, high initial investment in energy-efficient equipment and habits of energy users. Likewise, while awareness of the existence of renewable energies has improved considerably in the last years, there is still a lack of understanding of how to use them in practice.

Scope: Project proposals should focus on changing the behaviour of consumers in their everyday life (e.g. at home, at work, at school), using market segmentation and focussing on 'action', the last step of the AIDA (Awareness – Interest – Desire – Action) framework.

Equipment responsible for main energy consumption (e.g. heating and cooling, lighting, domestic appliances, and consumer electronics) as well as products from the small scale renewable energy market should be addressed in priority. Educational activities or tools (such as comparative ones) may be necessary, e.g. to help consumers read and understand their energy bills or labels; to help them take advantage of ICT devices and tools to monitor and analyse their energy use; to increase trust in individual smart meters or energy audits; or to help them participate in community renewable energy projects (e.g. RES consumer cooperatives, community-owned projects, etc.). Actions should take gender issues into account when relevant and involve manufacturers, retailers and consumer associations when these can play a decisive role. **The use of social innovations and innovative technologies (e.g. smart meters/appliances/ICT) should be considered when it brings added value, especially when addressing the younger generation. More fundamental activities aimed at a better understanding of consumers' and other stakeholders' perception, motivation and behaviour are part of the scope (e.g. understanding of product labels and building certificates, difference in patterns of consumption for women and men)** provided their results can directly lead to improvements in the effectiveness of consumer-driven initiatives.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 1.5 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: Bigger market share of the most energy-efficient products (from the highest energy class) and/or of high quality renewable energy products. For example, each million € of EU support in energy efficiency actions is expected to deliver annual energy savings of around 10% for at least 5,000 households (around 8 GWh/year of savings). In any case proposals should demonstrate significant impacts in terms of number of people changing their behaviour and taking informed investment decisions

Type of action: Coordination and Support Actions

Call information:

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3\\_marketuptake.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3_marketuptake.html)

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2374-ee-10-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

### ***EE 19 – 2014/2015: Improving the financeability and attractiveness of sustainable energy investments***

Specific challenge: Sub-optimal levels of investment in sustainable energy (in particular energy efficiency) are linked to a lack of trust of investors and financiers in the financial viability of sustainable energy measures, a lack of capacity in the public and private sectors to structure their projects, split incentives (e.g. rental buildings), and a lack of large-scale successful flagship projects. New bank capital requirements have decreased banks' lending capacity and willingness to invest in the sustainable energy sector, which is still deemed by many to be risky.

The financial sector needs to be convinced to develop new financing products and practices that can respond to the constraints of the market.

**Scope:** Project proposals and activities should foster dialogue with and between financial market actors, standardisation and valuation entities, industry, public authorities, consumers and property owners. They should lead to the development of new business models and financial products, ensuring synergies between public and private finance.

- Proposals focusing on the development of frameworks for the standardisation and benchmarking of investments, such as labelling and standardisation of sustainable energy investments / portfolios, or valuation techniques integrating the 'green value' of buildings. Proposals integrated in a broader approach such as socially responsible investment or 'green buildings' should focus on the energy component.
- Proposals targeting public institutional investors (e.g. public or semi-public pension schemes) in order to increase the share of their funds invested in sustainable energy, or to develop specific funds or investment products.
- Proposals aiming to create EU and national sustainable energy financing platforms to organise dialogue with the relevant stakeholders and (among others) develop roadmaps, propose improvements in the legal frameworks and develop template documents and contracts leading to a better understanding of the market. Proposals must include a clear action plan to communicate across Europe towards potential replicators. The mechanism for knowledge sharing between countries will be established by the Commission services.

The Commission considers that proposals requesting a contribution from the EU of between EUR 0.5 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.

For all proposals, at least three legal entities must participate in the action; each of the three legal entities shall be established in a different eligible country; and all three legal entities shall be independent of each other. However, proposals aiming to create national sustainable energy financing platforms may be submitted by one entity.

**Expected impact:** Proposals should lead to reduced uncertainty as regards investments into sustainable energy in terms of increased investors' confidence and trust. Further, relevant projects should deliver innovative (and relevant) asset valuation methodologies agreed by the market and/or standardised descriptions of sustainable energy investments or measures/contracts and/or labelling schemes or harmonised frameworks for sustainable energy investments and/or National strategies for financing sustainable energy investments.

**Type of action:** Coordination and Support Actions

**Call information:**

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3\\_marketuptake.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ee-2015-3_marketuptake.html)

**Topic information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2379-ee-19-2015.html>

**Deadline:** 4 June 2015 (17.00.00 Brussels local time)

**Topics with minor SSH relevance:**

***EE 11 – 2014/2015- New ICT-based Solutions for Energy Efficiency***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2369-ee-11-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

***EE 14 - 2014/2015: Removing Market Barriers to the Uptake of Efficient Heating and Cooling Solutions***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2375-ee-14-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

***EE 15 – 2014/2015: Ensuring Effective Implementation of EU Product Efficiency Legislation***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2376-ee-15-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

***EE 20 – 2014/2015: Project development assistance for innovative bankable and aggregated sustainable energy investment schemes and projects***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2381-ee-20-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

***EE 21 – 2014/2015: Development and Market roll-out of Innovative Energy Services and Financial Schemes for Sustainable Energy***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2380-ee-21-2015.html>

Deadline: 4 June 2015 (17.00.00 Brussels local time)

**Call - “Competitive low-carbon energy”****Call Identifier:** H2020-LCE-2014-2015**Relevant Sub-call for 2015 Topics listed below:** H2020-LCE-2015-3**Call Information:**<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-lce-2015-3.html>**Publication Date:** 11 December 2013**Opening Date for 2015 Topics listed below:** 10 December 2014 for 2015 topics**Deadlines:** 5 May 2015 (17.00.00 Brussels local time)***LCE 4 – 2014/2015: Market uptake of existing and emerging renewable electricity, heating and cooling technologies***

**Specific challenge:** The legal framework established by the Renewable Energy Directive (2009/28/EC, 'RES Directive') sets binding targets for all Member States to contribute to the overall 20% target for renewable energy in the EU final energy consumption by 2020, and the 'Energy Roadmap 2050' shows that renewables will have to play a much greater role in all future scenarios beyond 2020. As well as putting in place legal obligations, the RES Directive also makes recommendations for specific actions to be taken by the public and private sectors across the EU. However, in many areas, it leaves open the ways in which Member States may implement policies and support measures aiming to increase use of renewable energy at national, regional and local level.

Consequently, although some Member States have already made good progress in incentivising renewable energy, there are still many opportunities for common learning and sharing of best practices on the cost-effective mobilisation of new investments in renewable energy across the EU. Moreover, such investments contribute to the European 2020 strategy for growth, job creation, industrial innovation, and technological leadership as well as reducing emissions, improving the security of energy supplies and reducing EU's energy import dependence.

Since the adoption of RES Directive in 2009, most Member States have experienced significant growth in renewable energy consumption. However, currently, we are seeing a deceleration of this growth, partly due to the economic crisis, but also because there are a number of market uptake barriers that remain or persist for both established and innovative renewable energy technologies.

**Scope:** To ensure the level of growth needed to deliver the EU targets for renewable energy, and to create the appropriate business environment for EU industrial leadership in low-carbon energy technologies, a number of important market-uptake challenges still need to be addressed, notably:

- Ensuring sustained public acceptance of renewable energy projects and renewable energy overall, while taking into account the implications of the substantial increase in RES share in the final energy consumption;
- **Ensuring speedy and user friendly permitting procedures;**
- **Implementing renewable energy policies, codes and legislations at EU, national, regional and local levels in a coordinated manner using best practice examples with significant replication potential;**



- **Capacity building and contributing to the further development of renewable energy policy, legislation and regulation, and informing the debate on post-2020 horizons;**
- **Capacity building and facilitating the deployment of improved business models and innovative financing schemes for mobilising investments in innovative and established renewable energy systems and services.**

Proposals should address one or several of the challenges mentioned above for technologies and systems which are at TRL 7-9 (please see part G of the General Annexes). Regional specificities, socio-economic, spatial and environmental aspects from a life-cycle perspective shall be considered. For all actions, the consortia should involve and/or engage relevant stakeholders and market actors who are committed to adopting/implementing the results.

For RES electricity, actions which address exchanges of information or cooperation among different actors (e.g. on future business models for aggregators), must demonstrate that they are promoting best practices. Actions which are developing new recommendations or which are contributing to the debate on costs and benefits of specific options must provide quantified indicators of the market impacts of future policy options.

For RES heating and cooling, proposals must demonstrate that they are adopting an integrated approach which fully respects the requirements and recommendations given in the energy efficiency and EPBD directives. Actions aimed at promoting the use of geothermal, bio and/or solar heating for individual, industrial or district heating applications must involve / engage with the responsible policy makers and regulators as well as industry and potential financing bodies, and must include relevant capacity building and adoption of best practices.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 to 2 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: Increasing the share of renewable electricity, heating and cooling in the final energy consumption. Reductions in the time taken to authorise the construction of renewable energy plants and related infrastructure. Substantial and measurable reductions in the transaction costs for project developers as well as for the permitting authorities, whilst still fully addressing the needs for environmental impact assessments and public acceptance. Development of better policy, regulatory, market support and financing frameworks, including at regional and local level.

Type of action: Coordination and Support Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1146-lce-04-2015.html>

Deadline: 5 May 2015 (17.00.00 Brussels local time)

### ***LCE 6 – 2015: Transmission grid and wholesale market***

Specific challenge: Demonstration and R&D are needed in interoperable technologies, services, tools, system integration, network synchronisation, co-ordination schemes, business models, cost-benefit analyses, market architectures and rules and regulatory regimes to plan, build, monitor, control and safely operate end-to-end networks across national borders. The integration of renewable energy and emergence of new services and uses of electricity will require major upgrades and reinforcements of the pan-European power

system. A realistic implementation of the “smart grids” concept across national borders becomes a requirement to continue the safe operation of the grid.

**Scope:** Integrating and validating solutions to grid challenges, concentrating on field demonstration of system integration, up-scaling at industrial scale and supporting R&D. Preparing first replication of the solutions in different contexts and/or countries. **Appropriate market models, business cases, user and general public acceptance, regulatory, market up-take (e.g. regulatory issues, capacity building and access to finance), social, environmental and resource efficiency aspects should be included. Opening up demonstration facilities for targeted practice-oriented education and training is encouraged. LCA and economic assessments should be refined.**

The priorities for Innovation Actions are focussed on:

1. Demonstration and validation of emerging power, transmission and ICT technologies, including e.g. network synchronisation using European GNSS (global navigation satellite system) to increase transmission network flexibility, capacity and operational security (including resilience against disasters).
2. Demonstration of new approaches to the wholesale electricity markets facilitating the participation of variable renewable energy sources.
3. Demonstration of integration of active demand response and of variable renewable generation connected at distribution level to operations at distribution and transmission levels.

Market-uptake studies need to be integrated into the demonstration proposals. Potential risk of lock-in effects of early deployment should be taken into account.

Societal research needs to be integrated into the market uptake part. Societal research shall address concerns about data security, public acceptance and ensure that citizens see the clear financial benefit.

Particular priority elements for Research & Innovation Actions include:

- Joint modelling and simulation of power systems and the underlying ICT infrastructure.
- Interaction between the TSO and DSO, information exchange of RES availability, operational parameters and constraints between transmission and distribution systems.
- Methods and tools for emerging transmission technologies to increase transmission network flexibility, capacity and operational security as well as grid asset maintenance and management to mitigate the costs of grid reinforcement, operation, maintenance, replacement, upgrade and development in the presence of very large share of renewable generation, also taking demand response into account.
- Advanced architectures and tools for pan-European markets for ancillary services and balancing; Integration of advanced power electronics technologies into subsystems that enhance available network capacity and flexibility.

Selected proposals will be requested to cooperate through regular common workshops, exchange of non-confidential reports, etc. Proposals should address these activities in the description of the work. IPR issues will be fully respected.

The Commission considers that proposals requesting a contribution from the EU of between EUR 12 to 15 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:** The proposals are expected to have one or more of the general impacts listed below:



- Opening up the deployment of solutions for improving flexibility and available capacity of European electricity grids at high voltage levels to integrate renewable and other new electricity producers and users, while managing power flows or balancing while maintaining or enhancing service quality, reliability and security of the power system.
- Demonstrating advanced grid technologies and system architectures and further developing the competitiveness of European industries.
- Devising new market architectures and business models, disseminating effective architectures and models across Europe, demonstrating the infrastructures, processes and information management to develop the active participation of demand, and new players (such as aggregators) in energy markets.
- Mitigating capital and operational costs of the grid modernisation required for the energy transition, and minimising environmental impact.
- Better using scarce resources by maximising the up-scaling and replication of lessons learned from demonstration projects in Europe and by sharing of knowledge and practices.
- Better coordination among activities promoted by Member States and at European level.

Type of action: Innovation Actions, Research & Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1148-lce-06-2015.html>

Deadline: 5 May 2015 (17.00.00 Brussels local time)

### ***LCE 9 – 2015: Large scale energy storage***

Specific challenge: The high penetration rates of variable renewable energy resources entail the need for large scale energy storage to balance the production and consumption of high quantities of electricity and during longer time periods. Demonstration activities in this topic will aim to progress large scale energy storage and reduce the barriers associated with new storage concepts. An important market uptake challenge is to reduce the barriers (technological, economic, regulatory, environmental, social and other acceptance, etc.) associated with the deployment of existing or new storage concepts.

Scope: Activities should focus on storage systems that reached already TRL 5 and bring them to TRL 6-7 (please see part G of the General Annexes). This would **include anticipation of potential market and regulatory issues with due consideration to the environmental and socioeconomic aspects and improved models to demonstrate energy storage systems.**

Activities should pursue direct electricity or indirect storage (electricity with other energy vectors). The activities must address the interfaces for integrating storage in grid management. Where appropriate, synergies between electricity grid, other energy grids, storage and final energy use must be taken into account.

Integrated Power to Gas concepts allowing electricity storage through the production of synthetic gas to be stored in the gas grid in the form of synthetic/green methane are eligible. Electrolysis proposals and proposals with pure hydrogen injection in the natural gas grid are not in the scope of this activity; they should be submitted to the Hydrogen/fuel cells joint undertaking.

The priorities are demonstration and validation of:

- pumped hydro storage in new locations such as underground storage concepts, storage using seawater or similar concepts addressing large scale applications aiming at GWh scale;
- storage with compressed air, liquid air, and similar concepts aiming at the large scale (ideally > 100 MWh scale if appropriate);
- retrofitting of existing hydro dams with pumped hydro or other storage to enable flexible operation, large scale balancing and storage, while applying environmentally friendly design and operation;
- integrated management of existing or retrofitted pumped hydro storage (with variable speed pumps/turbines) also across national borders (e.g. smart grid concepts across alpine (or other) borders and enclosing many existing facilities);
- linking such storage projects with the development of the Northern Seas, Mediterranean ring and other Trans-European grid infrastructure concepts may be envisaged.

Demonstration proposals should include market uptake measures for integrating energy storage in the electricity network and power system management. They shall focus on a limited set of specific issues that currently prevent an up-scaling or the realization of the concept. They should also include research on environmental, economic, legal, societal and public acceptance issues and recommendations for future energy policy by the industrial stakeholders involved. These results should be compared with the results of research oriented projects on the same or similar topics.

All projects will have to perform a detailed cost-benefit analysis and operational optimization of storage.

Organising targeted practice-oriented education and training activities at the project's pilot or demonstration facilities is encouraged.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 16 to 20 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: The proposals are expected to cover the general impacts listed below that are relevant for the proposed demonstration:

- A wider use of storage technologies in the energy system through validation of solutions with reduced cost, increased efficiencies, and lower environmental impact.
- Provision of services for increased renewable energy integration, resulting, among others, in a reduced need for curtailment of wind, solar and other variable renewable energy resources
- Deferred investment for transmission grid reinforcements and lower societal costs associated with high penetration of variable renewable energy resources
- Integration with ICT tools for the control and management of electricity networks.

The impacts are expected to be linked to either energy balancing or improved grid congestion management at transmission level.

Type of action: Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1149-lce-09-2015.html>

Deadline: 5 May 2015 (17.00.00 Brussels local time)

***LCE 14 – 2014/2015: Market uptake of existing and emerging sustainable bioenergy***

Specific challenge: Actions are still needed to foster the development of the bioenergy sector and to ensure its sustainability (Renewable Energy Progress Report [COM(2013)175]). One way to do it is to use more and sustainable bioenergy. However, the EU needs to expand the supply of bioenergy produced in the EU, by encouraging the EU farmers and foresters to produce also energy and energy intermediaries.

In the short- and medium-term perspective, sustainable bioenergy in all its forms is expected to be the main contributor to the de-carbonisation. In order to achieve the EU targets set out in the RES and Fuel Quality Directives, and to address concerns regarding indirect and direct environmental impacts, sustainable bioenergy technologies (both existing and emerging) need to further penetrate the market.

Scope: Proposals should address one or several of the following bullet points using technologies and systems which are already at TRL 7-9 (please see part G of the General Annexes):

- **Setting up or strengthening sustainable local bioenergy supply chains that meet highest environmental criteria and quality standards, including consideration for indirect impacts and energy balances;**
- **Ensuring development and / or implementation of quality and sustainability standards for bioenergy in all its forms;**
- **Creating a market for sustainable intermediate bioenergy carriers to enable better technology competitiveness through economies of scale;**
- **Encouraging European farmers and foresters to produce non-food bioenergy or bioenergy carriers alongside food, feed and other products.**
- Development of methodologies for the traceability of biomass feedstocks from which bioenergy is produced (e.g. to distinguish first-generation from advanced biofuels);
- **Removing non-technical barriers to widespread production and use of biogas/biomethane from manure and other wastes as one of the most sustainable fuels available today for use in transport and for incorporation into the grid;**
- **Ensuring sustained public acceptance of sustainable advanced biofuels;**
- Exchange of information on best practices for bioenergy policy, regulations and support schemes to allow the most sustainable and energy efficient use of bio-resources.
- **Cooperation between different policy areas** at national / regional level (e.g. energy, agriculture, environment, waste, transport, etc.) needs to be increased to optimise the regulatory framework and implementing measures for the bioeconomy through exchange of information and best practices;
- **All Member States must possess the necessary capacity to enact the EU legislation, while the businesses must make full use of the opportunities that these new markets create for them. Therefore specific capacity building activities targeting the main stakeholders (e.g. biomass suppliers and users, decision makers, financial institutions, auditors and verification bodies) are needed.**

- **Tailored financing schemes for supporting investments in innovative and established bioenergy technologies must be implemented, and the most successful schemes replicated.**

**Regional specificities, socio-economic and environmental aspects from a life-cycle perspective shall be considered.**

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 to 2 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: Increasing the share of sustainable bioenergy in the final energy consumption. Substantial and measurable reductions in the transaction costs for project developers as well as for the permitting authorities, whilst still fully addressing the needs for environmental impact assessments, including considerations for indirect impacts and energy balance, and public engagement. Development of better policy, market support and financial frameworks, notably at national, regional and local level.

Type of action: Coordination and Support Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1150-lce-14-2015.html>

Deadline: 5 May 2015 (17.00.00 Brussels local time)

### 1.3 Societal Challenge 4 Smart, green and integrated transport

#### Call – “Mobility for Growth”

**Call Identifier:** H2020-MG-2014-2015

**Publication Date:** 11 December 2013

**Planned Opening Dates for 2015 Topics:** see topics below

**Deadlines for 2015 Topics:** please see the deadlines listed under the individual topics

The Call “Mobility for Growth (H2020-MG-2014-2015)” is divided into several “sub-calls”. The URL link to information on the participant portal is listed under the individual topics.

#### ***MG.5.4-2015. Strengthening the knowledge and capacities of local authorities***

Specific challenge: Achieving sustainable urban mobility requires the adoption of new strategic transport planning approaches at the local level which cover freight and passenger transport in an integrated way. However, very few authorities undertake a sound analysis of trends, develop scenarios and provide the necessary long term policies and focus. Without strengthening of authorities' knowledge and capacities, a transformation of urban mobility planning will not be achieved.

Scope: Proposals should address one of the following domains:

- **Promoting take up of the innovative concept of Sustainable Urban Mobility Plans (SUMP)s.** Proposals from large networked groups of local authorities should include instruments and mechanisms for information exchange to assist them in preparing and implementing SUMP)s. The plans should build on a solid methodology and include quantified targets. Proposals should ensure that the plans comprise a **long-term vision, build on local consultation and interdepartmental coordination, include monitoring and evaluation, address financing options,** and consider a wide range of measures, including newly-emerging technologies, **policy-based, and soft measures.**
- **Enhancing the capacities of local authorities and other stakeholders to successfully plan and implement innovative sustainable mobility measures, technologies and tools, on the basis of reliable data and analysis.** Sustainable financing should play a key role, which means that special attention should be given to setting up **business models, schemes for innovative procurement, the development of bankable projects and partnerships.**

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 to 4 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: The action(s) on Sustainable Urban Mobility Plans will generate a high leverage factor, especially in regions and cities where take up is so far low and the impacts from transport are severe. Participants should show a strong commitment on the preparation and implementation of the plans. The action(s) on capacity building will produce validated, practical and replicable tools and methods with guidance and training material, resulting in a maximum reach of the target audience.

Type of action: Research and Innovation Actions

Planned opening date: 10 December 2014

Call information:

[http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/calls/h2020-mg-2015\\_twostages.html](http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/calls/h2020-mg-2015_twostages.html)

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/2702-mg-5.4-2015.html>

Deadline: Stage 1: 23 April 2015, (17.00.00 Brussels local time), Stage 2: 15 October 2015 (17.00.00 Brussels local time)

### ***MG.5.5-2015. Demonstrating and testing innovative solutions for cleaner and better urban transport and mobility***

Specific challenge: Many of Europe's urban areas are struggling to address the transport-related challenges they are facing. New technologies and innovative measures are emerging, but they are not taken up at a scale that is necessary to meet the targets of the Transport White Paper. Cities are hesitating to implement innovative solutions because little information is available on their effectiveness and on how to overcome the barriers to successful implementation. Special attention should be paid to issues related to vulnerable groups of citizens and gender issues.

**Scope:** The first part of the topic addresses Innovation Actions to be carried out by city-led consortia, composed of four to five cities, led by at least two advanced cities, which are committed to establish living laboratories where innovative solutions can be implemented. The participating cities should demonstrate their common interests and their vision on how they will ensure a meaningful and close cooperation. Proposals should outline how the work will support effectively the cities' efforts to follow a viable path towards sustainable mobility.

Each city should follow an integrated, multimodal approach by demonstrating and testing under real life-conditions a set of complementary and reinforcing mobility solutions. The solutions should combine newly-emerging technologies, policy-based, and soft measures with a strong replication potential. They should cover an appropriate sub-set of the eight 'CIVITAS measure categories': collective passenger transport; **demand management strategies; mobility management** and travel awareness; **safety and security**; urban freight logistics; information systems and services; and clean fuels and low emission vehicles; **car-independent lifestyles**.

A thorough impact and process evaluation, on the basis of a common framework using a clear baseline in each city, will provide qualitative and quantitative information on the results of the local solutions implemented. The effectiveness of proposed measures in achieving local policy objectives should be evaluated and the barriers to broad deployment identified together with recommendations on how to overcome them. This should be accompanied by effective mechanisms for cross-fertilisation of knowledge and best-practises among the consortium members and beyond.

**Proposals may include preparatory, take up and replication actions, research activities, as well as tools to support local planning and policy making.** A demonstrated contribution to the **development or revision of Sustainable Urban Mobility Plans** as well as furthering the Union's strategy for international cooperation in research and innovation, especially with China, will be an advantage.

The Commission considers that proposals requesting a contribution from the EU of between EUR 12 to 18 million each for Innovation Actions would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. Funding for major infrastructure works is not foreseen.

The second part of the topic addresses a Support Action to facilitate cooperation between stakeholders involved in the projects under this topic, and from across CIVITAS 2020. It should further elaborate the common 'CIVITAS Process and Impact Evaluation Framework', support its implementation and contribute to **local capacity building in deploying innovative mobility solutions**. The action should include a clear communication and dissemination strategy to maximise impact and ensure the continuity of the 'CIVITAS Secretariat' as well as links with the CiVi-Net networks.

This topic complements work under the 'Smart Cities and Communities' Call of the Energy Challenge.

**Expected impact:** The Innovation Actions will produce added-value inputs to the development of European knowledge base on the effectiveness and impacts of innovative mobility solutions and approaches to their successful implementation. Clear commitments and contribution from participants to Europe-wide take up during and beyond the project are expected.

The Support Action will help to promote take up of innovation **by strengthening the mechanisms for urban transport policy making and planning** as well as the technical capacity building in the participating cities. Dissemination, training and exchange activities will aim at a maximum reach of the target audience.

**Type of action:** 1) Innovation Actions; 2) Coordination and Support Actions

**Planned opening date:** 10 December 2014

Call information:

[http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/calls/h2020-mg-2015\\_twostages.html](http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/calls/h2020-mg-2015_twostages.html)

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/2703-mg-5.5a-2015.html>

Deadline: Stage 1: 23 April 2015, (17.00.00 Brussels local time), Stage 2: 15 October 2015 (17.00.00 Brussels local time)

***MG.8.4b-2015. Smart governance, network resilience and streamlined delivery of infrastructure innovation***

Specific challenge: Infrastructure owners and operators need to ensure the best possible return from increasingly limited transport infrastructure investment funds. The main challenge is to **overcome the lack of a common framework for governance, management and finance of transport infrastructure projects (including methodologies and modelling)** with the aim to enable transparent, risk-based optimisation of investments within and across the modes. This includes issues such as resilience against climate change and other disturbances. Additionally, it is necessary to enhance the industry's practices and capacities in order to raise the productivity, quality and timeliness of infrastructure projects.

Scope: Proposals should address one or several of the following aspects:

- Development of whole system planning environments (based e.g. on virtual design concepts such as BIM - Building Information Modelling) to support the streamlined delivery of infrastructure projects from concept to deployment. In this respect, the rail sector deserves particular attention.
- **Innovative, harmonised and lean procurement processes**, accompanied by adequate monitoring systems, contracting and tendering methods; management tools to provide help in innovation delivery.
- **Solutions for advanced infrastructure capacity planning and modelling** for all transport modes.
- **Solutions for optimal cost-effectiveness, including network resilience, mapping of climate risk hot-spots, reducing environmental impacts, including under climate change, together with appropriate adaptation measures and cross-modal implementation strategies.**
- **Solutions for advanced asset management, advanced investment strategies and innovation governance**, including smart monitoring systems (such as Structural Health Monitoring) and adequate indicators for cost and quality.

SME active participation is strongly encouraged.

The work will focus either on further advancements in knowledge where technological progress is still needed (Research and Innovation Actions), or on implementing innovative technologies in real life conditions via large scale demonstration actions (Innovation Actions). The need for strengthening the network between infrastructure owners and operators in view of enhancing the effectiveness of the sector could be approached through appropriate coordination schemes (Coordination and Support Actions).

Expected impact:



- Accelerated delivery of transport infrastructure through improved, transparent and harmonised investment decision making at a European level, balancing performance with cost (in terms of Total Cost of Ownership) and risk.
- Improved predictive capacity and maintenance planning of the European transport infrastructure network, including determination of the optimal balance between long-term renewal and short-term maintenance.
- Improved assessment of risks related to impacts of climate change and evaluation of possible measures of adaptation.
- Faster adoption of innovation as a result of reinforced coordinated public-private partnerships, for example through (pre-competitive) innovation procurement procedures.
- Competence building in the area of transport infrastructure management, resulting in strong (public-sector) capabilities across the value chain of planning, delivery and operations.

Type of action: 1) Research and Innovation Actions; 2) Innovation Actions; 3) Coordination and Support Actions.

Planned opening date: 24 June 2015

Call information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/calls/h2020-mg-2015-singlestage-b.html>

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/2650-mg-8.4b-2015.html>

Deadline: 15 October 2015 (17.00.00 Brussels local time)

### ***MG.9.1-2015. Transport societal drivers***

Specific challenge: A sound understanding of behavioural and societal factors –including economic, social, demographic, cultural and gender issues where relevant- that influence transport demand and supply is needed to ensure that, in shaping transport policies and research and innovation activities, the values, needs and expectations of the society are met.

Scope: A forum for communication, collaboration, relationship-building should develop multi-stakeholder interactions and produce an action plan for innovative solution/options for transport and mobility to advance the agenda of the transport sector and society at large. The work should be inclusive of the state of the art of ideas, trials and business endeavours on new mobility concepts.

Stakeholders from within and outside the sector should be involved, in particular: policy makers, civil society organisations, end-users, industry including suppliers (vehicles and components – all modes) and transport service providers, academia and research organisations. These actors, by being engaged in this collaborative and knowledge-mobilisation process, will learn to explore together the most appropriate and viable solutions. Links and synergies with transport-related European Technology Platforms (ETPs) and the on-going TRANSFORUM17 project would add significant value.

The action plan should focus on:

- **Understanding user needs, mobility choices, aspirations and behaviours.**



- **Assessing how new mobility concepts would contribute to the overall transport efficiency.**
- **Exploring implications for policies, regulations, standards, forms of governance.**
- **Analysing societal resistance to acceptance of emerging transport technologies and services.**
- **Exploring market opportunities alongside the innovation chain, including services.**
- Foster consensus-building and public-engagement, thus facilitating the dissemination of good practices and the deployment of innovative transport and mobility solutions.

Dedicated **outreach activities to foster awareness and engagement of transport users and of the young generations in particular** should be undertaken, in order to enable the development of responsible and innovative attitudes as regards their mobility behaviour.

Proposals shall have a minimum duration of two years, with partners coming from at least 10 different countries and from the above-mentioned types of organisations. The maximum EU contribution cannot exceed EUR 3 million.

Expected impact: The setting up of this participatory framework is expected to:

- Ensure an inclusive approach in providing a comprehensive overview of new forms of mobility and transport, and their implications for users, the environment, society as a whole and policy makers.
- Enhance and better target transport policies and research and innovation priority setting.
- Address the mobility needs of specific groups and communities (accessibility; affordability, inclusiveness, safety, ageing population, etc.).
- Promote innovative/alternative business models and social innovation.
- Enhance corporate social and environmental responsibility.

Type of action: Coordination and Support Actions

Planned opening date: 10 December 2014

Call information:

[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-mg-2015\\_singlestage-a.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-mg-2015_singlestage-a.html)

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2645-mg-9.1-2015.html>

Deadline: 23 April 2015, (17.00.00 Brussels local time)

## 1.4 Societal Challenge 5 - Climate action, environment, resource efficiency and raw materials

### Call – “Waste: A resource to recycle, reuse and recover raw materials”

**Call Identifier:** H2020-WASTE-2014/2015

**Relevant Sub-Call for 2015 Topic listed below:** H2020-WASTE-2015-two-stage

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-waste-2015-two-stage.html>

**Publication Date:** 11 December 2013

**Opening Date:** 10 December 2014

**Deadline:** Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

#### ***WASTE-6-2015: Promoting eco-innovative waste management and prevention as part of sustainable urban development***

Specific challenge: The growing waste produced in Europe, particularly in urban areas, where the vast majority of the world population are expected to live by 2050, represents a cost for society and a burden on the environment and, at the same time, a valuable stock of resources that can be exploited.

Boosting eco-innovative solutions to prevent waste generation and promote the use of waste as a resource, in line with the objectives of the EU Resource Efficiency Roadmap and the Waste Framework Directive, can enhance the natural and living environment in urban and peri-urban areas. Developing and demonstrating such solutions in real-life environments will enhance their market uptake and contribute to sustainable urbanisation worldwide.

Cities are more than spatially extended material artefacts; they are complex systems similar to living organisms that use energy, air, water and nutrients and need to dispose waste in a sustainable way. Adopting an urban metabolism perspective opens the way for innovative, systemic approaches, involving the analysis of resource flows within cities. Integrating in this way economic, social and environmental dynamics, it is possible to understand the socio-economically and gender nuanced patterns of resource use and consumption, and pinpoint drivers of waste-avoiding behaviour, manufacturing and business and public governance models.

Scope: Proposals should adopt an **integrated urban metabolism approach and interdisciplinary research and innovation and take into account the gender dimension where relevant**. Proposals should involve active engagement of local authorities, citizens and other relevant stakeholders, using innovative concepts such as mobilisation and mutual learning.

Proposals shall address only one of the following issues:

a) Eco-innovative solutions: Demonstration, at an appropriate pilot scale, and market replication, of integrated eco-innovative cost- and energy-efficient technologies, processes and/or services for waste prevention, treatment, enhanced collection, recycling and recovery of high-grade valuable materials from waste. Approaches should integrate technological and **non-technological solutions**, including, where appropriate, **the use of economic**

**instruments, such as incentives for more sustainable production and consumption patterns, and awareness raising initiatives.** Proposals should include the participation of industry, including SMEs as far as possible.

The Commission considers that proposals requesting a contribution from the EU of between EUR 8 and 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

b) Eco-innovative strategies: Development of **innovative and sustainable strategies** for waste prevention and management in urban and peri-urban areas. Proposals should **highlight how urban patterns, drivers, consumer behaviour, lifestyles, culture, architecture and socio-economic issues can influence the metabolism of cities.** Proposals should highlight the possible benefits to be derived from ecosystems services and green infrastructure, and their **gender sensitive application.**

The Commission considers that proposals requesting a contribution from the EU of between EUR 4 and 5 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: Significant measurable improvements in the state of the art in waste management in urban and peri-urban areas, and in the operationalisation of the urban metabolism approach for sustainable urban development and reduction of negative environmental impacts (e.g. health) in cities. Contribution, over the long term, to the establishment of European research and innovation leadership in urban waste management and prevention.

In addition, the following specific impacts are expected:

a) Significant improvement in cost, material and, where appropriate, energy recovery efficiency in waste recycling and prevention in the short term. Identification of potential markets for the proposed waste collection strategies, treatment technologies and recycled products, as well as potential for replicability of solutions, based on a return-on-investment study on the short term. Creation, in the short/medium term, of green jobs and/or new SMEs due to effective market uptake of innovative technologies, processes and services, ensuring equality of access to women and men, and social inclusion. Contribution to development of standards, validated by key industrial players, and identifying best available and emerging techniques under the Industrial Emissions Directive.

b) Demonstrable improvement in the short/medium term in the participatory and science-based decision-making and planning for waste management, risk prevention and land-use as an integral part of urban development. Collectively-built, gender-sensitive solutions to promote eco-innovative urban management and re-naturing cities, measurable by qualitative and quantitative indicators. Significant increased competitiveness of soil-ecology-construction-waste treatment-related industries. In the long term, enhanced environmental resilience in urban areas and quality of life both in Europe and internationally.

Type of action: a) Innovation actions and b) Research and innovation actions

Topic information:

for WASTE-6a-2015 ("Eco-innovative solutions"):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2114-waste-6a-2015.html>

for WASTE-6b-2015 ("Eco-innovative strategies"):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2116-waste-6b-2015.html>

Deadline: Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

### Call - “Water Innovation: Boosting its value for Europe”

**Call Identifier:** H2020-WATER-2014/2015

**Relevant Sub-Call for 2015 Topic listed below:** H2020-WATER-2015-two-stage

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-water-2015-two-stage.html>

**Planned Opening Date:** 10 December 2014

**Deadlines:** Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

#### **Topics with minor SSH relevance:**

***WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication***

Topic information for WATER-1b-2015 (“Demonstration/pilot activities”):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2582-water-1b-2015.html>

Deadline: Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

***WATER-2-2014/2015: Integrated approaches to water and climate change (sub-topic WATER-2b-2015: Integrated approaches to food security, low-carbon energy, sustainable water management and climate change mitigation)***

Topic information for WATER-2b-2015

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2583-water-2b-2015.html>

Deadline: Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

***WATER-5-2014/2015: Strengthening international R&I cooperation in the field of water (sub-topic WATER-5c-2015: Development of water supply and sanitation technology, systems and tools, and/or methodologies)***

Topic information on WATER-5c-2015

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2584-water-5c-2015.html>

**Deadline:** Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

## Call – “Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials”

**Call Identifier:** H2020-SC5-2014/2015

**Publication Date:** 11 December 2013

**Planned Opening Date for 2015 Topics:** 10 December 2014

**Deadlines:** please see the deadline listed under the individual topics

The Call “Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials (H2020-SC5-2014/2015)” is divided into several “sub-calls”. The URL link to information on the participant portal is listed under the individual topics.

### ***SC5-7-2015: More effective ecosystem restoration in the EU***

**Specific Challenge:** Ecosystem restoration is frequently an expensive and almost always a lengthy process but it is capable of delivering extensive benefits in a cost-effective manner while also conserving and enhancing Europe’s natural capital. The restoration sector has accumulated a lot of expertise but knowledge, technologies and capacity will need to grow rapidly (and be shared) if the full potential offered by restoration is to be achieved.

**Scope:** Proposals should develop for conceptually coherent ecosystem types tools, approaches, methodologies and methods to assess and predict the effectiveness relative to their stated objectives – including both **cost-effectiveness** and benefits in relation to biodiversity and ecosystem services – of environmental restoration measures. They should engage the whole restoration community (business, academia, **including social sciences and humanities**, public administrations and civil society) in a major initiative to exchange experiences, identify strengths, weaknesses and best practices, encourage new techniques and technologies, and share information, knowledge and know-how in order to promote effective and sustainable restoration activities across the EU.

Proposals should use pilot projects or case studies, including a demonstration phase.

The Commission considers that proposals requesting a contribution from the EU of between EUR 5 and 7 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:** In the mid-term, improved design of restoration/rehabilitation measures and incentives; more effective integration of the 'restoration agenda' into the delivery of major policy objectives related to growth, job creation, urban and rural development, resilience to climate change, conservation and enhancement of natural capital; innovative policy mechanisms that can facilitate restoration; contribution to advances in green infrastructure; contribution to the objectives of the EU 2020 Biodiversity Strategy and the EU Water Framework Directive; better assessment of potential benefits of establishing restoration site

networks allowing for long-term observations and sharing of experiences for different types of ecosystems and pressures.

Type of action: Research and innovation actions

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sc5-2015-two-stage.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2195-sc5-07-2015.html>

Deadline: Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

### ***SC5-10-2014/2015: Coordinating and supporting research and innovation for the management of natural resources***

Specific Challenge: The pace of current developments and uncertainties surrounding likely future trends in ecosystems and their services requires further steps to maintain and strengthen the evidence base to ensure that policy makers, businesses and citizens in the EU and Associated Countries can continue to draw on a sound understanding of the state of natural resources and the wider environment, the possible impact of response options and their consequences in social, economic and environmental terms.

Better coordination of often fragmented research and innovation actions within Europe and beyond is needed, accompanied by timely and open exchange of information and research results to enhance the impact of research and ensure a more efficient use of resources and scientific developments.

Innovative ways are required to mobilise all relevant actors, increase policy coherence, resolve trade-offs, manage conflicting interests, increase participation of citizens in decision-making and improve public awareness and business uptake of research results.

Scope: Creation of European networks to facilitate dialogue among the relevant scientific communities, funding bodies and user communities in Europe throughout the duration of Horizon 2020. Proposals should cover activities such as clustering, coordinating and creating synergies between international, European and nationally funded research and innovation actions, developing joint programmes and projects, creating links with related international programmes, **forward looking analysis to establish emerging needs, communication and dissemination activities for an improved science-policy interface, and aligning research with decision-making requirements. This requires cross-disciplinary interaction and an integrated, systemic approach, especially between socio-economic and environmental sciences.**

Proposals shall address only one of the following issues:

a) [2014] Enhancing mapping ecosystems and their services: developing a flexible methodology that permits consistent aggregation and comparison across scales for coordination of a transparent, comparable and evidence-based mapping and assessment of ecosystems and their services, including multiple ones, across the entire EU (including the outermost regions) and at national and regional level in order **to guide policy- and decision-making**. It should also analyse their interdependency, inter-linkages, synergies and potential trade-offs and **value their multi-functionality for human well-being**, building on the outcomes of the Millennium Ecosystem Assessment (MA) work and the Economics of Ecosystems and Biodiversity (TEEB) studies.



b) [2014] Structuring research on soil, land-use and land management in Europe: a network of funding agencies and other key players in Europe (and possibly beyond) to scope national funded research activities, develop a joint vision and design a strategic research agenda (SRA) for activities on soil, **land-use and land management** that should be implemented through future joint calls. Examples of relevant issues are: land-use change impacts and trends, including the ones related to bioenergy/bioeconomy resources, spatial planning, soil threats, sustainable use of the soil-sediment-water system, impacts at global level and effects on trading partners, **integrating socio-economic research and identifying elements linking to relevant policy domains and multilateral environmental agreements.**

c) [2015] An EU support mechanism for evidence-based policy on biodiversity & ecosystems services: setting up **an innovative, self-sustainable governance mechanism with a long-term perspective extending beyond the life of the project to enhance effective and efficient interactions between science, society and policy** related to biodiversity and ecosystems services in the EU. This should build on existing science-policy interfaces and include all EU Member States, Associated or Accession Countries and should be open to observers.

Expected impact: Evidence-based policy and appropriate, cost-effective management, planning and adaptation decisions by the public sector, businesses, industry and society through the provision and effective communication of trustworthy and timely science-based information. Enhanced impact of research and innovation activities through better identification of R&I priorities, improved coordination of EU and Member State/Associated Country research and innovation programmes and funded activities, and synergies with international research and innovation programmes.

In addition, the following specific impacts are expected:

a) In the short term (1-3 years), an enhanced capacity and more consistent approach of Member States, through leveraging and complementing their actions, to carry out their obligations in line with the EU 2020 Biodiversity Strategy and national requirements.

b) In the short-term establish a jointly agreed vision and SRA and a network of funding agencies determined to implement it through a joint call in a follow-up phase. Enhance synergies and collaboration between national research programmes in the domain. Medium to long-term, improved evidence-based policy making in domains such as agriculture, environment, climate action, spatial planning, energy transition, drinking water production, resource efficiency and cohesion, and for implementing the Rio+20 pledge to achieve a 'land-degradation neutral' world.

c) Swift response to scientific and technical needs resulting from EU research and innovation and environmental policies in the short term (1-3 years) and further improvements in the medium term (3-10 years). Long-term positive impact on policy- and decision-making to address local, regional, cross-border or pan-European challenges through the provision of knowledge assessments, advice and science-based options and link in with international efforts and fora on biodiversity and ecosystem services.

Type of action: Coordination and support actions

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sc5-2015-one-stage.html>

Topic information for SC5-10c-2015:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2152-sc5-10c-2015.html>

Deadline: For SC5-10c-2015: 21 April 2015 (17.00.00 Brussels local time)



**SC5-17-2015: Demonstrating the concept of 'Citizen Observatories'**

Specific challenge: New in-situ observatories ('Citizen Observatories') based on citizens' own devices (e.g. smart phones, tablets, laptops, and other social media) used together with innovative technologies can strengthen environmental monitoring capabilities, have the potential to generate new and original applications to reduce investment and running costs of in-situ observations and monitoring applications and solutions, and involve novel partnerships between the private sector, public bodies, NGOs and citizens. However, achieving this depends on further development and testing in real conditions, wider deployment and commercialisation by the private sector and greater user acceptance. This requires leveraging emerging technologies, data and information sharing, developing services and actively engaging in governance at all levels and scales in the domain of environment. It also calls for innovative approaches and tools to handle complexity, interactions and interfaces and to facilitate knowledge transfer, assessment, valuation, uptake and exploitation of data and results for policy, industry and society at large.

Scope: Proposals should scale up, demonstrate, deploy, test in its entirety and validate in real-life conditions the system proposed for Citizen Observatories and the **effective transfer of environmental knowledge for policy, industrial, research and societal use, with a focus on the domain of land cover/land use**, both in rural and urban areas. Proposals should include a **strong involvement of citizens and citizens' associations** together with the industrial sector, in particular SMEs, as far as possible. The data collected should complement those from existing systems (e.g. the Copernicus Land Service) and surveys, including national surveys.

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 5 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: Lowered cost and extension of the in-situ component of the GEOSS and Copernicus initiatives. Better decision-making through the empowerment and active role of citizens and citizen's associations in environmental monitoring, co-operative planning and environmental stewardship, with special impact on land resources management. Enhanced implementation of governance and global policy objectives. Increased deployment and market uptake of innovative in-situ monitoring techniques. Increased European role in the business of in-situ monitoring of the environment.

Type of action: Innovation actions

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-sc5-2015-two-stage.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2196-sc5-17-2015.html>

Deadline: Stage 1 – 21 April 2015 (17.00.00 Brussels local time), Stage 2 – 08 September 2015 (17.00.00 Brussels local time)

**Topics with minor SSH relevance:**

***SC5-19-2014/2015: Coordinating and supporting research and innovation in the area of climate action, environment, resource efficiency and raw materials (sub-topic SC5-19b-2015: Mapping Member State research and innovation in climate change, environment, resource efficiency and raw materials)***

Topic information on SC5-19b-2015:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2158-sc5-19b-2015.html>

Deadline: For SC5-19b-2015: 21 April 2015 (17.00.00 Brussels local time)

## 1.5 Societal Challenge 6 - Europe in a changing world – inclusive, innovative and reflective Societies

### Call – “Overcoming the Crisis: New Ideas, Strategies and Governance Structures for Europe”

**Call Identifier:** H2020-EURO-2014/2015,

**Sub-Call for 2015 Topic listed below:** H2020-EURO-6-2015

**Call Information (H2020-EURO-6-2015):**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-euro-6-2015.html>

**Publication Date:** 11 December 2013

**Deadline:** 28 May 2015 (17.00.00 Brussels local time)

### ***EURO-6-2015: Meeting new societal needs by using emerging technologies in the public sector***

Specific challenge: Public sector innovation and the modernisation of public administrations are considered as important underlying factors for economic growth and also contribute to competitiveness. It is essential to promote innovation in order to foster efficient, open citizen-centric public services. This innovation also addresses the challenge of social change and user needs.

In order to improve efficiency, effectiveness and quality of public services, the public sector needs to implement new processes, products, services and methods of delivery. The public sector typically combines and builds on top of existing technology elements to innovate. However, in today's financial situation, the economical power of public administrations to pull research results into the market cannot be ignored. In the EU, the overall market for purchases of goods, services and works by the public sector accounts for almost 20% of GDP.

New insights in how to think of the systems and services combined with new technologies are providing exciting opportunities for innovative designs and transformation of public sector delivery.

Further research, starting with identifying the specific challenges of the public sector, such as policy domain requirements and the needs of targeted citizens or businesses is needed. The introduction of new technologies could lead to the transformation of processes and better regulation. Projects should demonstrate the benefit both for society as well as for civil servants. Research shall also explore the burdens - whether legal, human or others - that prevent public administrations from implementing the identified emerging technologies.

This requires multidisciplinary research taking into account the societal, political as well as human factors, including citizens and civil servants, and how they can contribute to modernising policies and innovative services of general interest in any policy field. Where relevant involving users and citizens in the design of public services is critical and it is also important to explore social acceptability, impact on the improvement in public service delivery and potential benefits for citizens, businesses and society.

Such an approach enables research results to reach a potential market, while at the same time it will help in modernising the public sector. It will take account of, and further develop, new knowledge on the interaction between citizens and public authorities, while taking into consideration the introduction of new technologies in the particular context of public administrations, and explore how the uptake of emerging technologies by the public sector can help Europe overcome the crisis. For example, how can Web 3.0 (semantic web technologies), semantic interoperability, linked open data, Internet of things, social sensor networks, radio-frequency identification or wearable technologies, help to tackle challenges in the public sector? How can emerging, new technologies facilitate the process of government to become a platform allowing public and private actors to collaborate and create new services using open data and open services? How do emerging new technologies need to be adjusted to the specificities of the different selected policy domains of public activity?

#### Scope:

##### a) Research and innovation actions

Based on the development and use of emerging technologies and research carried out so far, activities will support the preparation of next phases and possible validation in near to operational environment for the implementation of emerging ICT technologies in the public sector.

The focus can be on any or several of the below:

- **Improving effectiveness and efficiency of public administrations;**
- **Transforming public administrations processes;**
- **Processes and ways in which new cultural and societal challenges are identified in public policies;**
- **Understanding the political and cultural attitudes and factors affecting attitudes among both civil servants and citizens towards public sector transformation and supporting adaptation;**
- **Transforming delivery of public services to business and citizens taking account of diversity (gender, age, disability etc);**
- **Uptake and acceptability of the use of emerging technologies in the public sector;**
- **Reducing the administrative burden of citizens and businesses;**
- **Offering inclusive public services.**

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

b) Coordination and support actions<sup>4</sup>:

The activities should aim at encouraging networking of relevant stakeholders and teams working in these areas and to support constituency building. The dynamic, multidisciplinary network will include researchers within the social and economic sciences working alongside computer scientists, designers and innovators. Following an assessment of the needs that may include engaging citizens and user centred design, the network will carry out a gap analysis and identify emerging technologies and potential applications for their implementation in the public sector, having in mind specificities relevant to different policy domains of public activity. The activities will conclude with the outlining of a roadmap for emerging research directions, in a multidisciplinary approach, taking into consideration activities also undertaken outside the European Union.

Expected impact: This topic will explore the potential benefit of using emerging ICT technologies in support of public sector innovation in line with the objectives of the eGovernment Action Plan 2011-2015 and identify barriers for a wider use. Integrating emerging ICT technologies to enable an efficient, effective, environmentally-friendly, open and citizen-centric public sector will help to prepare the transformation to the public sector of the future and to support the implementation of innovative policy reforms adopted in different policy fields. The take-up of those technologies will encourage new innovations for the benefit of businesses and citizens, and open new areas for socio-economic research. Furthermore, stimulating the creation and use by the public services of emerging technologies will help to accelerate time-to-market and open up new markets for ICT solutions across the EU.

Type of action:

- a) Research and innovation actions
- b) Coordination and support actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2093-euro-6-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

## Call – “The Young Generation in an Innovative, Inclusive and Sustainable Europe”

**Call Identifier:** H2020-YOUNG-2014/2015

**Sub-Call for 2015 Topics:** H2020-YOUNG-SOCIETY-2015

**Call Information for 2015 Topics:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-young-society-2015.html>

**Planned Opening Date:** 10 December 2014

**Deadline for 2015 Topics:** 28 May 2015 (17.00.00 Brussels local time)

### ***YOUNG-3-2015: Lifelong learning for young adults: better policies for growth and inclusion in Europe***

(SSH dedicated topic)

Specific challenge: It is obvious that investing appropriately in lifelong learning will contribute to overcoming the economic and social crisis and meeting the Europe 2020 targets on employment, poverty reduction, education, sustainability, innovation. The need and markets for adult education (after initial education and training) are thus likely to rise in the coming years. However, despite sustained attention over the years, adult education in Europe remains inadequate. Firstly, it is now well documented that those who are more in need of adult education, such as young, unemployed, low skilled, disabled and vulnerable workers, actually benefit less from adult education opportunities than other more advantaged groups. Secondly, the costs of adult education are footed largely by enterprises and individuals/families while the public resources invested are largely less than the private ones: this fragmentation actually shows the persistent weakness and ineffectiveness of adult education policies.

In this context, it is important to review thoroughly the situation of adult education in Europe and look for ways to take the most out of the numerous initiatives taken by a large number of often isolated actors. Such policy and programme learning should as a priority address young people, in particular those with low levels of basic and functional literacy, those not in education or training or those in situations of near social exclusion, who could be helped much more effectively if adequate adult education policies were designed.

Scope: The research will address adult education in general (for all ages), with a specific focus on young adults and vulnerable groups (from an indicative age of 18 and after leaving initial education and training) after entry into working life.. It will consider the complementarity between public policies and dynamics of private markets in the EU market and will analyse actors, dynamics, trends, mismatches and overlaps. A historical perspective on lifelong learning (e.g. in the 19th century urban areas) will add to a comprehensive analysis.

The research will identify successful programmes which are demonstrating to improve learning outcomes, particularly those reaching out to young adults at risk of social exclusion and other vulnerable groups, and address their transferability to other countries/regions. Diversity issues (gender, culture, ethnicity, language etc.) should be considered as well.

The research will also address the learning potential and innovation ability in workplaces (organisational models that favour innovation ability and innovative oriented training) and the effectiveness of learning actions.

The action should help to set-up a cooperation mechanism between the various agencies doing research and collecting data at international and European level for developing synergies and avoiding overlaps. It will reflect on existing taxonomies and indicators and on

their appropriateness to sustain European strategies. It will investigate the feasibility and possibly develop an Intelligent Decision Support System (policy making modelling) for simplifying the access to information and support policy making in the different phases of the policy cycle. It will develop a systematic impact analysis of adult and continuing education policies linking it to forecasts for demand of skills in the future.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: The research will harvest the potential of existing and generate new scientific knowledge in order to create synergies and cooperation amongst the main international and European actors collecting data and doing research in the field in order to compare and analyse adult education across Europe.

An 'Intelligent Decision Information System' will facilitate the access to scientific evidence for policy making so to support them in correcting the distortion of the adult education and continuing training market, show how to reduce barriers that hamper access to opportunities for various levels of population and locations, identify appropriate financial measures for supporting individuals and companies, ensuring an effective and fair distribution of resources, reduce mismanagement and corruption. The analysis of the past and current policies impact will be linked to forecasts for demand of skills in the future.

The research will advance knowledge on specific aspects linked to adult education such as specific policies and programmes for young people that have demonstrated an improvement of their labour insertion and reduced their risk of social exclusion, organisational models encouraging innovation in the companies, application of various psychological and behavioural sciences outcomes to adult education, transmission of skills and knowledge between workers, informal learning and the efficiency of private markets. In essence knowledge gained will be useful to reduce the deprived situation of most vulnerable groups that are normally less involved in adult education.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2099-young-3-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***YOUNG-4-2015: The young as a driver of social change***

(SSH dedicated topic)

Specific challenge: Meeting the challenges of the ageing population and a transformation into a more sustainable social and economic model, characterised by growing scarcity of resources, greater consideration for the natural environment, living under a shifting climate with uncertain consequences, and more gender equality, necessitates profound changes in the European society concerning our lifestyles, consumption patterns, the way we do business, develop our cities and design our homes, but also the way we build and govern our societies, forge intra- and intergenerational relations and organise our daily lives. These challenges cannot be met without willingness and personal commitment of the individuals who will be forming the core of our future society. The current generations of young people are at the heart of it, as they grow up and get educated in the society of new paradigms where, contrary to the situation their parents and grandparents faced, rapid population

ageing is a reality and sustainability is at the top of the agenda, especially with rapid development of emerging economies.

Scope: Research should analyse the norms, values and attitudes of young people in Europe, as well as their expectations and attitudes regarding public policy and organisation of economic, social and private life, including the organisation of cities and space more generally, as well as the types of business ethos and their different roots. This should include young adults of different ages and sexes, and coming from different geographical, socio-economic, ethnic, cultural and religious backgrounds, taking into account both individuals and young families that in particular experience new challenges. Research should also investigate their attitudes towards a more sustainable socio-economic model and its various features in comparison with older generations, including the evolution of gender relationships. This should take into account the different determinants of youth's active engagement in developing such model, in order to assess the potential and readiness of young people to be a driver of change as well as their propensity to creative solutions and practices. It should also explore the understanding of young people as a community and identify the opportunities and obstacles that young people see as catalysts and inhibitors of the socio-ecological transition and how they could be addressed by policy in order to foster a sustainable and innovative society in Europe, including through formal and informal education as well as digital and traditional media. Research should examine how change in cultural values could contribute to achieving an inclusive and sustainable society.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research is expected to provide important insights into the perspective of socio-ecological transition from the point of view of young people. It will advance our knowledge about young adults in Europe, their values, norms, communities, expectations needs and political ambitions. Through comparison with older generations, research will identify the intergenerational differences regarding the organisation of economic, social, political and private life in Europe. This will contribute to public policies designed to meet the challenge of transition into a more sustainable economic, political and social model that would at the same time respond to the needs and expectations of young people. At the same time it will identify the areas where education could play a role in shaping attitudes of young people towards the necessary evolution of our lifestyles.

Type of action: Research and innovation actions

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2100-young-4-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)



## Call – “Reflective Societies: Cultural Heritage and European Identities”

**Call Identifier:** H2020-REFLECTIVE-2014/2015

**Relevant Sub-Calls:** H2020-REFLECTIVE-SOCIETY-2015, H2020-REFLECTIVE-6-2015

**Call Information H2020-REFLECTIVE-SOCIETY-2015:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-reflective-society-2015.html>

**Call Information H2020-REFLECTIVE-6-2015**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-reflective-6-2015.html>

**Planned Opening Date:** 10 December 2014

**Deadline:** 28 May 2015 (17.00.00 Brussels local time)

### ***REFLECTIVE-2-2015: Emergence and transmission of European cultural heritage and Europeanisation***

(SSH dedicated topic)

Specific challenge: The history of Europe and over sixty years of European integration have fostered the emergence of cultural heritage at different levels – local, regional, national and, recently, European. In all its forms, cultural heritage, values, institutions and language are crucial for the collective memories and sociability of groups but also for the personal development of citizens, enabling them to find their place in society. They also serve as a source of inspiration for the development of people's personalities and talents. Extending to the very heart of Europe and constituting a basis for EU construction, they play a key role in providing a sense of European belonging and EU citizenship as distinct from, but combined with, national citizenship. Cultural heritage and values are at the heart of our capability of overcoming the current EU crisis which could well provide the stimulus for revising EU policies so as to provide a solid basis for the emergence of a truly European cultural heritage and for passing it to future generations. The challenge is to explore and show how critical reflection on the historical, cultural and normative roots of Europe's cultural and democratic practices and institutions contribute to an evolving European identity today.

Scope: The multidisciplinary and comparative research will focus on the emergence of a European cultural heritage in a historical perspective and the best way to transmit it. The content and methodology of education and curricula should be taken into account, as well as the role of new technologies and media. It will address how the local, regional, national and European aspects of cultural heritage are interlinked, how they are understood or not by citizens and encouraged or not by various stakeholders and promoters of cultural heritage. It will also analyse how this interplay of cultural heritage at different levels impacts on Europeanisation and the citizens' perceptions on Europe. The research will focus on the place of critical reflection in sustaining this as a cultural resource. This research should include both tangible and intangible cultural heritage as well as less established or popular examples of cultural heritage in the area of the living arts and consider contemporary trends in arts and culture in the shaping of tomorrow's European cultural heritage in order to enrich the study differentiating between commercial and non-commercial aspects. The research will also focus on the multilingual nature of the European heritage, seeking to gain a deeper understanding of the axiological, linguistic, social and cultural aspects of multilingualism and how they ensure the transmission of cultural heritage across generations and borders.

The links between the valorisation of this combined cultural heritage and various forms of formal and non-formal education and training, as well as the development of social, axiological, linguistic, cultural and political memories or imaginaries, should be studied in order to assess potential trends towards various forms of European cultural heritage and its links with Europeanisation. This should also include the assessment of the touristic potential of the EU level cultural heritage.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research will support the EU cultural policies linked to fostering the emergence, transmission and use of cultural heritage at local regional, national and, in particular, European level.

It will provide the different stakeholders at all relevant levels in various sectors of cultural heritage with an ambitious approach to sharing its development and preservation at the different levels, suggesting innovative synergies between various levels of responsibility. These activities are expected to offer practical advice, best practices and a set of proposals regarding European cultural and educational institutions that could promote European cultural heritage and its use in Europe and internationally in full cooperation with relevant authorities and experts and the due participation of EU citizens at relevant levels.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2088-reflective-2-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***REFLECTIVE-3-2015: European cohesion, regional and urban policies and the perceptions of Europe***

(SSH dedicated topic)

Specific challenge: Regional policies were the second largest part of the EU budget in the period of 2007-2013 and they will maintain a large budget share in the new multiannual financial framework as well. The contribution of these policies towards European economic, social and territorial cohesion has been constantly monitored and critically analysed in recent years. On the contrary, our knowledge is much less significant on the contribution of this vast European policy to a positive identification with the European project as such or to the emergence of a valued, popular sense of European identity among the beneficiary population. Europe's regions are very diverse in terms of institutional history, distinct cultural (or even linguistic, ethnic or national) identities as well as administrative and governance functions. In some regions, indigenous peoples' issues and demands are affected and challenged by European policies. In the context of a perceived democratic deficit of the EU and bearing in mind the importance of local practices and mental representations in the construction of identities, it is highly important to analyse the triangular relationship between European regions, the European framework for the application of cohesion, regional and urban policies (including the notion of smart specialisation and the role of creativity in modern development policies) and the impact of European regional policies on a positive identification with the European construction. Scope: The tailor-made, multidisciplinary, geographically balanced and comparative research will aim at exploring the interplay between (1) European regions with highly different administrative roles, civil participation, history, culture, creativity and identity, (2) the application of cohesion, regional and urban policies in the EU, including the

subsidiarity aspects and decentralised decision-making and the aims of smart specialisation and (3) the contribution of regional policies to a positive identification with the value-based European integration project by European societies. In analysing the potential of EU cohesion, regional and urban policies for fostering a more positive identification with the European project, it is crucial to also incorporate the interplay with regional policy regulatory implementation experiences, both positive and negative. Based on a critical review and assessment of the existing conceptual and methodological background supported by modern creative practice, the research should include a comparative analysis of genuine and innovative case studies from Member States with different current and historical territorial administrative frameworks and regional identities in order to identify the channels by which European regional policies impact the perception of Europe by its citizens. Finally, the research activities should consider the impact and effectiveness of communication efforts related to EU-financed regional development projects.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: The research is expected to make major conceptual, methodological and analytical contribution towards a better understanding of the relationship between European regional policies, local and regional identities and the perception of the added value of the EU by its citizens. These activities will inform communication strategies at the EU, Member State and regional levels regarding the European regional policies and specific projects. They will provide insights on how to adapt these communication efforts to local and regional realities in order to maximise their impact. At the same time the research will consider how to increase the civic appreciation of these policies and how to improve regional policy relevance and efficiency.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2089-reflective-3-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***REFLECTIVE-4-2015: Cultural opposition in the former socialist countries***

(SSH dedicated topic)

Specific challenge: Numerous documents and objects in various collections testify to the rich variation of independent cultural movements and activities against the regimes in the former socialist countries in Europe. These documents of an era, which shaped - and still influences - the attitude of several generations of today's EU citizens towards their political and social participation, understanding of the new democratic reality and formulation of the new societal identity, are however widely dispersed and fragmented and as such often unknown to or neglected by the general public.

Scope: The comparative research will firstly examine various types of collections witnessing the widest possible spectrum of the cultural opposition movements and activities in former socialist countries – today's and potential future Member States of the EU and in exile, supporting these cultural movements. It should analyse to what extent and how the documents/objects in these collections - be it various types of independent literature or documents witnessing opposition expressed through visual or performing arts, religious and other activities - are known and used for informing EU citizens, and especially the young people of the EU, on the anti-communist past. In order to fulfil this task, the collections in

various countries should be identified and their electronic register created. The register should provide a standardized, researchable and reusable dataset and tools should be developed to explore it. Historical circumstances influencing the creation of documents/objects they contain should be clarified and various types and features of those objects should be analysed.

Secondly, various types of the country-specific cultural opposition movements in the former socialist countries and in exile should be analysed and ways how their activities reflected diverse alternatives to the oppressive communist regime should be investigated. Finally, the question whether, to what extent and how such movements contributed to the fall of socialist regimes and to the creation of the modern diverse societies, should be addressed. To support this investigation, the archives of the secret police and other oppression bodies of the socialist state could also be explored in order to understand the position of the communist regime vis-à-vis the outputs of the researched cultural opposition movements.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: The research will have multiple impacts. Firstly, the developed register of these collections will contribute to their better promotion as an important testimony to anti-communist opposition in Europe and will foster cooperation among institutions holding them. The tools developed to explore it will serve to enhance the quality of research and facilitate the innovative exploitation of the documents/objects it contains in education and cultural heritage sectors.

Secondly, a set of recommendations based on such research findings will propose methods for a preservation of these, future cultural heritage, objects and will give guidance on the role of the European Union in this respect. The findings from the analysis of country-specific anti-communist cultural movements will, among others, be of use for pedagogical processes. Finally, the guidance on how the collections and the results of the analytical part of the research should be used will focus on raising awareness and preserving memories in the EU on lessons learned from the socialist past of today's and potential future EU members.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2090-reflective-4-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***REFLECTIVE-5-2015: The cultural heritage of war in contemporary Europe***

(SSH dedicated topic)

Specific challenge: European nations and societies have had ambiguous relation to war since the beginning of the age of modern nation states. Wars were the culmination of patriotic efforts and cemented national identities. The horrors of wars pushed the same societies, nations and their elites to overcome traditional rivalries and to engage in the European construction that finally succeeded after World War II. The Nobel Peace Prize received by the European Union in 2012 and the upcoming Europe-wide memorial events related to the first centenary of the outbreak of World War I and to the 70th anniversary of the end of World War II put in relief in an expressive way the many layers of the cultural heritage of war, whether for local communities, for national or for European identities.

Scope: The multidisciplinary, geographically balanced and comparative research will aim at exploring the complex relationship that contemporary European societies have with the tangible and intangible cultural heritage of the major armed conflicts fought on their soil in the 20th century (inter alia World War I and World War II but also Balkan wars, civil wars, revolutions, etc.).

The research will map the use of the cultural heritage of the selected major armed conflicts in memorial practices, media and popular culture, political appropriation, education, heritage preservation and related cultural heritage tourism. It will explore and conceptualise the role that this cultural heritage plays in local and national identities and in the practices and narratives laying the foundation of European identities. It will explore links between national cultural heritage traditions and assess how these can be better articulated, taking the impact of war on cultural memory into account.

Comparison with cases from geographical regions outside of Europe could further deepen the comparative aspects of the research.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research under this topic will significantly deepen knowledge on the – sometimes contradictory – local, national and European aspects of the cultural heritage of wars and other major armed conflicts. It will provide innovative ways, networks, tools and policy advice on how to maintain and preserve this rich and diverse element of the European cultural heritage and how to promote it further in communication, education and tourism at the level of the whole EU. It is expected that these activities will create a lasting dynamic in this specific field of European cultural heritage by putting into place new networks of researchers, local communities, education providers and specialists of heritage preservation and tourism. They will also contribute to a better understanding of memorialization practices, cultures of commemoration and the politics of memory across Europe. The research will also provide genuine and innovative policy recommendations concerning the valorisation, in an inclusive European perspective, of this difficult but fundamental cultural heritage of contemporary Europe. Strong emphasis will be put on the development of new inter-institutional initiatives and high quality new education tools and material for multiple platforms that reinterpret cultural heritage and allow the development of new shared cultural perspectives in Europe going beyond the individual nationally-focused memory cultures.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2091-reflective-5-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***REFLECTIVE-6-2015: Innovation ecosystems of digital cultural assets***

Specific Challenge: The digital age has revolutionised our habits, behaviours and expectations. The utilisation of digital technologies for research in the humanities and social sciences demonstrates the need for innovation at the service of scholarship and its advancement. The shift to digital is impacting on identities and cultures and transforming the shape of the knowledge that we will transmit to future generations as well as the means by which we can interact with it. This specific challenge responds to the growing urge to share the wealth of cultural resources, research and knowledge in our collections and recognises that new cultural assets are continually created. It will show how digital cultural resources



can promote creativity and generate innovation in research design and methodology, lead to richer interpretations of the past, bring new perspectives to questions of identity and culture, and generate societal and economic benefits. Europe's vast cultural heritage can be transformed into digital assets, whose integration and reuse through research-led methods can create value for European cultural institutions and heritage, tourism and the cultural and creative industries. The objective is to enhance the analysis of cultural resources to improve our understanding of how European identity can be traced, constructed or debated, and to use those resources to foster innovation across sectors.

Scope: Support and promote access to and reuse of digital cultural heritage resources (available in scientific collections, archives, museums, libraries and cultural heritage sites) as part of research and innovation. Projects should enable **new models and demonstrations of the analysis, interpretation and understanding of Europe's cultural and intellectual history** and/or capitalising on state of the art technologies (e.g. mobile and wearable devices), **bring cultural content to new audiences in novel ways**, through the development of new environments, applications, tools, and services for digital cultural resources in scientific collections, archives, museums, libraries and cultural heritage sites. The developed technologies or services should be **generated in the context of humanities research perspectives (identity, culture, questions of place, historical and cultural knowledge) and/or facilitate the access, reuse and exploitation of digital cultural resources meeting real user needs**. They should illustrate how they allow new research questions to be formulated on the basis of cross-collaboration and/or stimulate cross-border, cross-lingual **multi-disciplinary reuse of Europe's cultural heritage**, enabling collaboration and partnerships and co-production of knowledge across sectors and communities of researchers and users. Proposals should demonstrate appropriate methods of re-using and repurposing digital assets, paving the way for wider exploitation of Europe's cultural resources and boosting innovation.

The Commission considers that proposals requesting a contribution from the EU between EUR 2 million 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: Activities under this topic will:

- stimulate new research perspectives for the humanities and social science communities, promote further the use of digital cultural heritage allowing its reinterpretation towards the development of a new shared culture in Europe.
- provide innovative and creative methods for approaching cultural assets and generate applications and services to access and exploit the rich and diverse European digital cultural heritage in a sustainable way.
- foster collaboration between those with primary expertise in the interpretation of cultural data and researchers with complementary expertise in digital and interactive frameworks. Projects will strengthen the European capability in creating new forms of digital entertainment and engagement based on cultural heritage and will promote the use of new technologies such as new media and new modalities of access. In addition these activities will create a viable and sustainable cross-border, cross-lingual and/or cross-sector digital exploitation of European digital cultural heritage assets by putting into place new networks of researchers, scholars, ICT professionals and specialists of digital heritage. Type of action: Innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2104-reflective-6-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

***REFLECTIVE-8-2015: Communication and dissemination platform***

(SSH dedicated topic)

Specific challenge: This support action has a twofold purpose. First, it is aimed at contributing to the provision of consolidated information on the findings of EU-funded projects in the area of inclusive, innovative and reflective societies, developing communication materials for policy makers, academics, the media and the general public (for example writing reviews or 'policy briefs'), and improving the quality of existing texts. This includes helping to guarantee an improved access to research projects' data.

Second, it is necessary to organise in a professional way the dissemination activities for research results in the area of inclusive, innovative and reflective societies (workshops, conferences or other types of ad hoc events) in order to complement European Commission activities, using the latest information and communication technologies and tools.

Scope: The supporting action should foster dialogue and cooperation amongst researchers themselves (not only from EU-funded projects but also those funded by other international or national organisations when relevant) and between researchers and other stakeholders (policy makers, public institutions, civil society, trade unions, practitioners etc.), from a multidisciplinary policy perspective and focussing on innovation, inclusion and growth valorising the impact of research findings. Research and Policy Communities, in the form of groups or ad hoc debates, would contribute to the review of past and on-going EU research. They would contribute to screen and use those results for the design of research agendas and dissemination and valorisation strategies as well as, to the identification of data collection challenges. Tools like innovative internet platforms or social networks should be used. Dissemination at European/national level must be addressed, via specific events, networks of national facilitators or other modalities of action. A meaningful thematic clustering of past and on-going projects and the related activities proposed by the platform may be tackled covering in particular (but not only) the themes related to the European economic and financial reform, the problems of young people in Europe, cultural heritage, values and diversities in Europe as well as the EU role as a global actor.

The Commission considers that proposals requesting a contribution from the EU in the order of 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: The support action will bring together other communication experts and researchers on the topics selected for EU funding, creating communities with multidisciplinary perspectives that will ensure effective dissemination and take up of EU-funded research results increasing therefore substantially their visibility. The action is also expected to provide insights on how to improve the availability and quality of data as well as contribute to the development of the European Research Area, in particular in the field of social sciences and the humanities and to the development of future research agendas.

Type of action: Coordination and support actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2092-reflective-8-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)



**REFLECTIVE-11-2015: Enabling Innovation - Creating Impact from Social Sciences and Humanities**

(SSH dedicated topic)

Specific challenge:

SSH disciplines have a significant potential to foster inclusive, innovative and reflective societies and help all forms of innovation transform European economies and societies. However, valorisation of SSH is in its infancy. Until now, a clear identification of the impact of SSH research has been difficult because knowledge transfer to policy-making, development of products and services or to any kind of innovation activities using SSH research has hardly been actively and systematically pursued. Besides, the existing methods and instruments used in STEM disciplines (science, technology, engineering and mathematics) are hardly applicable for SSH research and there are thus important barriers to the valorisation of SSH which still need to be understood in detail.

Scope:

The action will analyse the potential and the challenges of SSH valorisation at the European level and will develop solutions for advancing the practical application of research results, methods and expertise of SSH into products and services. To reach these goals, the action should develop a platform that will bring together SSH researchers and economic and social actors, including within an interdisciplinary setting. This platform should foster a dialogue between SSH researchers and relevant stakeholders with the aim to identify the structural requirements and conditions that must be created to ensure an effective valorisation of SSH research. In particular this should include such issues as research design, research communication, training of SSH researchers and their employability in the wider economy or any other relevant social field where SSH should be integrated in innovation endeavours, as well as production and use of data.

The action will also develop a valorisation concept for the systematic exchange and dissemination of SSH research results, which will include the earlier and deeper integration of SSH research across the innovation value chain. The developed concept will also need to be tested in a subsequent step. To achieve this, the action will take into account the existing experiences with enabling knowledge transfer and valorisation of SSH at national, European and international level. Therefore, it is expected that the platform will enable sharing and combining existing knowledge on these experiences, including the diverging positions on SSH research in various European countries, and to develop a basis for mutual learning.

The Commission considers that proposals requesting a contribution from the EU in the order of EUR 2 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:

The platform developed under this topic will significantly improve the valorisation of SSH research. The knowledge transfer of SSH, including in an interdisciplinary setting, will foster the development of products and services across the innovation value chain and will raise awareness for the value of SSH research and the possibilities to integrate it across the European innovation system. By strengthening the impact of SSH research, this action will contribute to the economic and social progress and help address the societal challenges in Europe.

Type of action: Coordination and support actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9072-reflective-11-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

## Call – “Europe as a Global Actor”

**Call Identifier:** H2020-INT-2014/2015

**Relevant Sub-Call:** H2020-INT-SOCIETY-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-int-society-2015.html>

**Planned Opening Date:** 10 December 2014

**Deadlines:** 28 May 2015 (17.00.00 Brussels local time)

### ***INT-3-2015: Europe's contribution to a value-based global order and its contestants***

(SSH dedicated topic)

**Specific challenge:** The notion of and access to global justice have been at the centre of many debates about the objectives and legitimacy of global governance and international law. For some, global justice implies solidarity with all humankind on the basis of inter-culturally shared values. Others think that such a broad conception of justice is untenable, and that high levels of justice may, if at all, only be attained at the level of the nation-state. While the debate is open on what a just global order can be and which values it could or should comprise, one can identify certain conditions that global political action would need to fulfil to move closer to the ideal type of such an order. Parting from a European view of global justice and human rights, European policy-makers regularly portray the European Union as an ethical global player promoting values like democracy and human rights in its external relations. Moreover, the EU's engagement in the fight for sustainability and against poverty and conflicts in the world may be an indicator of a determination to spreading its values so as to render the world more just. However, the Union's real impact on global justice, also at the institutional level, remains not only underspecified but is often also contested.

**Scope:** Research should first look into the criteria for global justice and contrast various understandings of it, exploring European as well as non-European and non-Western perspectives. It should then examine whether and how various criteria for a just and value-based global order are met by the EU and EU Member and Associated countries' policies, activities and regulations in issue areas that may be of particular importance for the promotion of inter-culturally shared values and justice at a global scale, such as trade and development policy, the defence of human rights, the promotion of gender equality, religious freedom conflict prevention and resolution and the protection of livelihoods. It should also investigate the impact of governmental, non-governmental and transnational actors who contest the EU's activities and present alternative visions of global justice and how to obtain it. Research should ultimately come to statements about if and how Europe does - or does not - contribute to a value-based global order. It should identify facilitating and inhibiting conditions for European action that effectively promotes its values.

The participation of international partners in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research on the European contribution to a just global order, especially through institutions and law, will advance the understanding of the Union as a value-based actor in global affairs, while uncovering the conflicts that exercising this function creates with other major global players. It is thus expected that this research will shed empirical light on the potential for and limits to the EU's future place in a multi-polar global order. By identifying facilitating and restraining factors for effective EU external activities aimed at the export of values, research will provide the bases for future-oriented and evidence-based reflections on the contents and conduct of these external activities.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/1055-int-03-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

#### ***INT-4-2015: The European Union's contribution to global development: in search of greater policy coherence***

(SSH dedicated topic)

Specific challenge: Development policy represents one of the key areas of activity of EU external relations. In order to further enhance the impact of its actions in this policy domain, the European Union, in particular the European Consensus on Development, has, since the mid-2000s repeatedly emphasized the need for greater "policy coherence for development" (PCD). By referring to this concept, strengthened by Article 208 of the Lisbon Treaty, the Union recognizes that non-development policies can have significant effects on third countries, contributing to or undermining its development policy objectives. To minimize contradictions and build synergies between development and non-development policies, the EU increasingly strives to take greater account of developing country needs and interests in the five global challenge areas of the PCD work programme: trade and finance, climate change, global food security, migration and security, as addressed in the 2011 and 2013 Policy Coherence Reports. In cooperation with the Organisation for Economic Co-operation and Development (OECD), the EU has also been among the key promoters of PCD on a global scale. The idea that greater policy coherence is needed to advance global development policy objectives is also expected to play a key role in the debate on a future post-2015 development agenda. This was underlined by the Council Conclusions of May 2012 that encouraged the Commission to develop a more evidence-based approach to further improve monitoring, implementation and follow-up.

Scope: Research should adopt a comprehensive perspective on EU policies and regulations and their impact on developing countries, analysing the intended and unintended consequences of both development and of non-development policies' impact on developing countries. It should, on the one hand, look into EU and EU member state development policy in various regions of the world, investigating where appropriate, to what extent and why these have proven to be effective or not. On the other hand, EU and EU member state non-development policies with a bearing for development in third countries should be closely scrutinized. Finally, the influence and policies of more recent

development actors should be analysed in order to situate the European position into a global context. In this context the increasing South-South cooperation in development policies should be taken into account. Based on these analyses, a methodology should be developed for measuring progress on policy coherence for development including elaborating suitable baselines, target and indicators. Case studies on EU policies vis-à-vis developing countries from different world regions, with specific emphasis on Least Developed Countries, are needed and where appropriate meaningful comparisons are encouraged. Factors (e.g. actors/institutions, procedures, structures) that enable or hinder coherence for EU development policy should be identified at both the EU and developing country levels. Research should take into due account the cooperation on science and innovation for development pursued under the FP7 International Cooperation programme.

The participation of international partners in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research on policy coherence for development in the European Union is expected to significantly advance the understanding of the bases for effective EU development policy and of the successful integration of developmental concerns into other EU policy areas. The development of a methodology for measuring costs and benefits of such coherence will, moreover, allow for identifying baselines, indicators and/or assessment criteria and targets for a continuous monitoring of PCD progress in EU policies in the medium and long term. Research will also lead to policy relevant insights, most importantly the identification of policy options on how the EU can enhance the effectiveness of its combined development and non-development policies so as to ensure greater impacts. Findings for the EU could be extrapolated to other development actors, such as the OECD, and could thus feed a global debate on the notion of policy coherence for development.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/1056-int-04-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***INT-5-2015: Rethinking the European Union crisis response mechanism in light of recent conflicts***

(SSH dedicated topic)

Specific challenge: In recent years, the European Union or its members have, on several occasions, intervened in third countries to give support for conflict resolution or to counter destabilisation or other security threats. In general terms, such interventions can happen in different ways, such as military operations, intelligence cooperation, military training or humanitarian logistical support.

In the European Union, the Treaty of Lisbon foresees different response mechanisms, which can be targeted to the specific crisis it intends to tackle. They include joint disarmament operations, humanitarian and rescue tasks, military advice and assistance tasks, conflict

prevention and peace-keeping tasks, tasks of combat forces in crisis management, including peace-making and post-conflict stabilisation. Such operations, however, have an impact both on the perception of the EU in third countries as well as on the international political and economic relations.

Scope: Research should analyse the crisis response mechanisms in the EU and the policies accompanying their use and investigate the Union's capacity to take decisions and to respond efficiently with a common voice, if needed. This should focus on the EU's joint military and civilian capabilities, evaluate progress made in this field as well as identify future needs in view of further strengthening EU capacities. In particular, the motivations and actor constellations behind such interventions need to be assessed as well as the consequences and limits of such actions. The role and the influence of other international organisations such as NATO and the UN Security Council need to be analysed in the context of the interactions and synergies between these organisations and the EU. An analysis of the position of the BRICS on intervention could also help to contextualize the position of the EU as a global actor in crisis scenarios. Finally, research could investigate the situation in third countries after the EU or its members have withdrawn their military forces or other forms of support (e.g. in Iraq, Afghanistan).

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research is expected to advance theoretical and practical knowledge on EU's response mechanisms and their effectiveness and thus to contribute to strengthening its military and civilian capacities for anticipating crisis situations, as well as defining and promoting EU positions in terms of instruments of analysis, diplomacy and response mechanisms. By analysing and comparing the role of the EU and other international organisations in crisis situations, it will contribute to a better understanding of the EU's role as global actor and its implications.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/1057-int-05-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***INT-6-2015: Re-invigorating the partnership between the two shores of the Mediterranean***

(SSH dedicated topic)

Specific challenge: During the last decade, the Mediterranean basin has inspired several concepts, instruments and policies like the Barcelona process, the Euro-Mediterranean Partnership, the Union for the Mediterranean, the European Neighbourhood Policy, action plans and association agreements. The boundaries of the Mediterranean area are not clearly delimited. This region could only include the Mediterranean basin countries (with direct access to the Mediterranean), whereas other specialists take into account the influence of other partners, for example the Gulf States. It is also a dynamic region with the outward and inward movement of people and associated religious, linguistic and ethnic diversity.

For several decades, bilateral approaches to cooperation between the Northern and Southern shores of the Mediterranean have been favoured and this is still prevailing. In this context, an important question arises on the effectiveness of bilateralism versus regionalism



taking into account the role of the European Neighbourhood Policy in this region as well as how such policies are perceived by the South. Furthermore, following recent developments in the region, it is important to identify and characterise new leaderships in the Mediterranean area taking into account pluralism of and the power shifts among strategic players as well as the role and significance of other countries that are not part the Mediterranean area.

Scope: Research should assess the potential and effectiveness of the policies and measures implemented between the two shores of the Mediterranean and identify the obstacles and prospects for further collaboration. In this context, the concept of bilateralism and regionalism should be defined and assessed in the Mediterranean area, including the pros and cons of both concepts as well as the evaluation of the potential of in-depth cooperation in specific fields like science and technology, water, agriculture, energy, cultural heritage or transport.

Research should discuss also from a historical perspective, the different understandings of this region and explore which countries significantly influence the situation and developments in the region. In this context, the citizens' perceptions of the image, role and influence of Mediterranean collaboration need to be investigated from both Northern and Southern shores. To this end, data on citizens' perceptions of the Mediterranean will be collected and updated.

Research should also identify the best practices, priorities and potential future developments that could improve the relations in this region, taking into account potential new strategies and political priorities that could emerge in the near future.

Broad participation of international partners from the Mediterranean region in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: The assessment of the prospects for and obstacles to further collaboration between the two shores of the Mediterranean will improve the understanding of the European Union's external action in the area and should contribute to a reflection on its future role in the region. Research will particularly lead to a refined conceptualization of the new geopolitical configuration of the Mediterranean area which will contribute to debates on the most appropriate mix of policies and measures either through a regional or a bilateral approach, including at sectorial level. Finally, activities under this topic will lead to identifying possible actions needed to improve the EU-Mediterranean collaboration dealing with the particular features of each country in this area.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/1058-int-06-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***INT-7-2015: Towards a new geopolitical order in the South and East Mediterranean region***

(SSH dedicated topic)

Specific challenge: For several years, the political landscape of the South and East Mediterranean countries (SEMCs) has been evolving, affecting the geopolitical order of the whole SEMCs and Middle East area. Regimes that had been established for many decades

in Tunisia, Egypt and Libya were overthrown while other political destabilisations and conflicts arose in Syria, Yemen and Lebanon. Strong tensions exist between the political establishment and forces that emerged in these processes of transformation. The SEMCs and Middle East region is often considered as one entity while each country and region has its own reality social and cultural history and values, political formations, powerful bodies – sometimes interconnected with neighbours or other regional powers in the area – influence the political situation on the internal and external scene. The political transformations that the region is facing, from war, conflict, revolution or transition, have also major impacts on the local population.

This topic aims at better understanding these different realities and how they have developed over time in order to assess the complex developments in the region. The future of the area will have significant implications both on the regional and international scenes, as well as on the relationship between Europe and the South and East Mediterranean countries. The current and future role of the EU in the Middle East will also have to be investigated.

Scope: Research should contribute to enhance knowledge on SEMCs and the Middle East area in assessing the key factors that affect the former and new leaderships and analysing the main political dynamics of the region in the broader sense of the term (including adjacent regions). It should identify the interconnections between the different countries at the geostrategic level.

Research should assess the role of internal and external actors: political bodies, religious factions, communities, elites and minorities but also the role of other players (Gulf countries, China or Russia) in the geopolitical game over time. In order to better understand interrelations of social, cultural, religious, gender and political factors and developments in the region, research should draw on a multitude of disciplinary perspectives including, for instance, sociological, historical, economic and anthropological research. Specific attention should be paid to the role of religions (Sunnis and Shias) and their influence on political factions (such as Wahhabis, Salafis, Islamic movements, Hamas, Hezbollah and Muslim Brotherhood) as well as their use of various media. Their political influence at the country, regional and international levels should be investigated. The current situation and the future of ethnic or religious minorities (Christian minorities, role of different tribes, Kurds, Druzes, Alaouites,...) in the SEMCs and Middle East should also be explored.

Research should look at the potential risk of destabilisation of the region and the effects on the population both at national and macro-regional levels (especially studying the question of refugees, migration and relocation as well as the state of women's rights). The impact of diverse and rapidly changing migratory patterns from, to and through these countries should be analysed from a geo-political perspective, both in terms of regional cooperation as well as with regards to SEMCs relations with EU countries. Research will also identify the role of civil society and the existing cleavages or tensions that may emerge between different groups of the population (such as current and future elites but also the role of both rural and urban citizens and of gender relations) in the geopolitical and political process. Research should also build scenarios about potential developments and futures in the area over the 20 years.

Broad participation of international partners from the Mediterranean region and the Middle East in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research is expected to advance knowledge on the geostrategic and geopolitical developments in the SEMCs and in the Middle East. It will focus on the existing and emerging social, cultural, political, gender and religious factors that affect the region. The topic should also contribute to better understanding of the current and future role of the EU in the region.



Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/1059-int-07-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***INT-8-2015: The European Union and the Eastern Partnership***

(SSH dedicated topic)

Specific challenge: The European Union's Eastern and North-Eastern neighbours include six post-Soviet countries of strategic importance with whom the EU has sought to reinforce relationships since the 1990s. Belarus, Moldova, Ukraine and the three countries of the South Caucasus (Armenia, Azerbaijan, Georgia) form together part of the EU's Eastern Partnership. The relations that the Union maintains with these countries are structured around bilateral and multilateral strategies aimed at establishing durable political, economic and cultural ties. This includes intensified research and innovation collaboration through the newly established Panel on Research and Innovation.

Major concerns for the EU's foreign policy towards this region include democracy, human rights, the rule of law and socio-economic stability. Other recurring issues pertain to good governance, migration and mobility, trade, sustainability and energy security. To date, political and socio-economic transition processes in this complex region have been rather slow. Potential reasons for this relate to internal problems and uneven developments in the six countries, but also to historical legacies, culture and the geostrategic context in which the Partnership evolves. All these factors need to be understood and accounted for if the European Union wants to design policies that durably support transition processes in this region.

Scope: Research should include stock-taking of existing bilateral relations between the EU and all countries in the region as well as between these countries inter se. It should explicitly adopt the perspective of the examined countries so as to promote the understanding within the EU of the region and its challenges. Emphasis should be put on the adaptation of economies and societies of the Eastern Partnership countries to European standards. This is closely linked to the need for determining conditions necessary for the successful implementation of association agreements. Research should also examine societal development such as the evolving activities of civil society in these countries. Given the recent focus on the Caucasus in Call SSH 2013.4.1-1 ("Security and democracy in the neighbourhood: the case of the Caucasus"), and based on the findings of the research financed under this Call, specific attention should be paid to Belarus, Moldova and Ukraine. Key issues forming part of the partnerships and recurring problems in bilateral relations should be addressed, comparing individual EU Member States' and Associated Countries' approaches and the EU's policies. As part of this exercise, research should also examine if and how scientific cooperation and the mobility of researchers can contribute to an increased understanding between the EU actors and the countries and people of the region and to addressing societal challenges of shared concern. The geostrategic environment in which the Eastern Partnership evolves - including especially the role of Russia, but also of Turkey - should be taken into account. Contrasting European approaches toward the region with those of third countries (especially USA and China) could equally be of interest. Based on the research findings, EU policy options vis-à-vis Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine per se as well as to the region and its broader geostrategic environment in general should be assessed.

Broad participation of international partners from the EU's Eastern Partnership countries in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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:** Research on the EU's relations with key countries in the studied region will provide sound insights into the major problems facing this region as well as into the key advances and remaining challenges in the political, economic and cultural relationships between the EU and these countries. It will thus not only contribute to a better understanding of the EU's partners, but also reveal major challenges to the European Union's neighbourhood strategy and policies. This will allow for identifying significant policy implications for the EU's approach to each of the countries individually and to the region on the whole.

**Type of action:** Research and innovation actions

**Topic information:**

<http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/1060-int-08-2015.html>

**Deadline:** 28 May 2015 (17.00.00 Brussels local time)

### ***INT-9-2015: The European Union, Turkey and its wider neighbourhood: challenges and opportunities***

(SSH dedicated topic)

**Specific challenge:** Since the outset of the European integration process in the aftermath of World War II, Turkey has been an important economic and political partner for the EU and a strategic military ally within NATO, forming a bridge into the Middle East and the Caucasus. Turkey is also a member of the G-20 group and ranks among the top 20 countries in the world regarding the size of the country, its population and the nominal GDP. The process of Turkey's integration with the EU has started in 1963 when it became an associate member following the Ankara Agreement. Turkey applied for EU membership already in 1987, but was officially recognised as a candidate country in 1999 and the official accession negotiations started in 2005. In 1995 a customs union agreement with the EU was signed.

Following the decades of close cooperation, Turkey is already well integrated with the European Union in particular in the socio-economic themes, including cooperation on research and innovation, and in cultural matters. In recent years however, due to the economic and financial crisis as well as continuing tensions in the Middle East and the South and East Mediterranean region, the challenges facing both Turkey and the EU have grown. In this context, the different options for further EU-Turkey cooperation in the next decade should be fully explored, taking into account the rising global importance of Turkey as an independent regional power.

**Scope:** Research should analyse the economic, social, political and geostrategic challenges and opportunities - for Turkey itself and for the EU - of further integration of Turkey with the EU, taking into account the different forms this collaboration could take as well as its historical, socio-economic and cultural dimensions. Different scenarios and their consequences should be analysed, from the point of view of the strategic interests of both the EU and Turkey. This should include both internal and external dimensions, public debates on EU-Turkey integration as well as the analysis of impacts on relations with other global powers and with other world regions, in particular the Middle East, the South and East

Mediterranean, and the Caucasus. Research should also explore the potential consequences of a lack of progress in building stronger ties between Turkey and the EU. It should engage civil society and citizens.

Broad participation of partners from Turkey and its wider neighbourhood countries in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research is expected to advance theoretical and practical debates on the different scenarios, and their implications, of the potential further integration of Turkey with the EU and to provide the analysis of the challenges and opportunities associated with this process. It will make a critical assessment of the evolution of EU relations with Turkey in the last decades as well as how they were affected by the shifting global order and the rise of Turkey as a regional power. These activities will contribute to a better understanding of the challenges facing the EU neighbourhood and enlargement policies as well as will provide evidence base to support them.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1061-int-09-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***INT-10-2015: The European Union and integration challenges in the Balkans***

(SSH dedicated topic)

Specific challenge: The Balkans represent an interesting neighbouring region for the EU from geographic as well as from political and historical perspectives. Following Slovenia's accession to the Union in 2004 and since the launch of the Stabilisation and Association Process (SAP) in 2000, only Croatia has become an EU Member State in July 2013. All the other Balkan countries have the prospect of becoming Member States and are bilaterally engaged with the EU through Stabilisation and Association Agreements (SAA) (i.e. Albania, Bosnia and Herzegovina, Former Yugoslav Republic of Macedonia, Montenegro, Kosovo and Serbia). On its way toward EU membership, each country undergoes individual review processes to meet the reform requirements and comply with the so-called EU *acquis*. In addition, challenges which reflect to a large extent the socio-economic, political, cultural, religious and ethnic diversity of the Balkans have to be addressed and overcome. In its attempts at supporting a transformation toward political and socio-economic stability in the Balkans, the EU is therefore faced with a high degree of complexity.

Scope: Research should include stock-taking of existing relations between the EU and each of the countries in the Balkans as well as between these countries inter se. It should explicitly adopt the perspective of the examined countries so as to promote the understanding within the EU of the region its history and challenges. Key issues such as socio-economic and democratic development, identity politics, challenges of state building, linguistic and cultural diversity, ethnic conflicts as well as gender equality and migration should be addressed. Moreover, research should examine if and how scientific cooperation and the mobility of researchers can contribute to an increased understanding between EU actors and the countries and people of the region and to addressing societal challenges of shared concern. The role of macro-regional strategies (e.g. the EU Strategy for the Danube Region) and of other strategic powers in this region, like the USA, Russia and Turkey, should also be analysed. Based on the research findings, EU policy options vis-à-vis each country in the

Balkans and the region as a whole should be assessed, taking into account the broader geo-strategic environment.

Broad participation of partners from the Balkan countries in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research should allow for a comprehensive understanding of the Balkans, taking into account the current state of each country's relations with the EU as well as the cultural, political and socio-economic conditions in the region. By adopting both an inside-out and an outside-in perspective on the EU's relations with the actors in this region, research should also enable a critical assessment of the Union's external policy - its overarching strategy, the tools it employs and their impacts - vis-à-vis the individual Balkan countries and the region as a whole. Research findings can ultimately be expected to identify best practices and shape the EU's enlargement policy and strategies vis-à-vis this region and to possibly include recommendations on how to further enhance their effectiveness for the benefit of both the Balkans and the EU.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1062-int-10-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

***INT-11-2015: European cultural and science diplomacy: exploiting the potential of culture and science in the EU's external relations***

(SSH dedicated topic)

Specific challenge: At a time when other major global players, such as China or South Korea, are stepping up their public diplomacy efforts around cultural issues, including science and education, cultural diplomacy is also of increasing interest in the European Union. While there is a strong history of cultural diplomacy both within Europe and between Europe and the wider world, a number of recent initiatives have been launched by the European Commission and the European Parliament to reinforce the link between EU foreign and cultural policies. The Commission's "European Agenda for Culture in a Globalising World" has led to the establishment of a Member States' expert group on culture and external relations (taking China as a test case), which has delivered a report with recommendations. Following its 2011 resolution on "Cultural dimensions of EU external actions", the European Parliament has launched a Preparatory Action on culture in external relations, implemented by the Commission. These initiatives are based on the assumption that European cultural heritage and the long-standing experience with protecting it, as well as European science, need to be promoted, and therefore included in a broader global strategy. Effective and coherent EU cultural and science diplomacy cannot only be a major means of furthering inter-cultural dialogues with third countries and regions, but it can also help in promoting trade in (cultural) goods and services to and from the EU as a basis for building relationships. Moreover, it provides a significant tool for projecting Europe's immensely rich and diverse cultural heritage to the world and of allowing the EU to contribute to the global governance of culture and science. Inversely, cultural and scientific exchanges can also contribute to facilitating diplomatic relations and cultural diplomacy can be (co-)delivered by actors in a "bottom up" manner.

Scope: Research should analyse and compare in depth EU and EU Member States' bi- and multilateral cultural relations with major third countries and regions in EU's neighbourhood and beyond, as well as international organizations. It should emphasize the institutional set-up, aims, processes and contents of the EU's external cultural activities and how cultural issues are embedded into its external relations more generally as well as examine how successful these activities are in building relationships. As part of this exercise, science and technology cooperation - as significant complement of cultural diplomacy - should explicitly be examined. The role of the Council of Europe and the multilateral dimensions of global cultural relations within UNESCO should equally be investigated. Special attention should be paid to the role of non-governmental and private sector organisations as well as cooperation of cultural professionals and scientists. Research could compare the EU and its Member States with other major, and often very active global players (e.g. the US, China or South Korea). The broader social, political and economic developments that EU activities in the cultural and scientific domain are embedded into should be accounted for when researching this issue.

The participation of international partners in proposals submitted to this call is encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research that will look into the evolutionary nature of multiple cultural ties between Europe and specific countries and world regions, also from a historical perspective, is expected to furnish a critical overview of the existing EU and Member State external cultural and science policies. It will explore incentives for joint action and reveal possibilities for achieving synergies and coordination. It will highlight best practices and effective cooperation, but also inconsistencies and shortcomings in political and economic terms. The findings will contribute to a better understanding of the potential for and challenges facing European Union cultural and scientific diplomacy and the embedding of culture into its external relations more widely. They will allow for drawing policy implications on the set-up, the role of different EU institutions and services in, as well as the contents and processes of such diplomacy.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1063-int-11-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

### ***INT-12-2015: The cultural, scientific and social dimension of EU-LAC relations***

(SSH dedicated topic)

Specific challenge: A shared history, as well as cultural, political and economic ties, closely connect Europe and Latin America and the Caribbean (LAC). Individual countries enjoy close bilateral relations, and cooperation at regional and sub-regional level is gaining momentum.

At bi-regional level, the Strategic Partnership between the EU and LAC was launched in Rio de Janeiro in 1999 and has gradually been upgraded into the current EU-CELAC Partnership. Aided by this process, the two regions have cooperated on a wide range of issues in a number of sectors, including those identified by the EU-CELAC Action Plan and more particularly the Joint Initiative for Research and Innovation (JIRI) adopted at the Madrid Summit in 2010.



Today, the European Union is the leading investor in the region, the second largest trading partner after the U.S.A. and a major provider of development cooperation assistance. However, beyond the economic relationship, the EU-CELAC cooperation needs to reinforce the cultural, scientific and social ties and common vision between the two world regions.

Scope: Research under this topic should critically examine past and present cultural, scientific, intellectual and social exchanges between individuals, countries and regions within the wide EU-CELAC area, with a view to determining synergies and cross-fertilization, as well as identifying asymmetries in bi-lateral and bi-regional relations.

The cultural exchanges between EU and LAC should be studied, as for instance those brought about through long-standing migration movements between the two regions, as well as those taking place in fields such as arts, literature, sports and beyond. Scientific exchanges between EU and LAC should also be examined in an historical and forward-looking perspective and research should look at how mobility of researchers and cooperation between research institutions and laboratories can contribute to an increased understanding and cooperation between the two sides. Research could also shed light on how LAC representative groups of citizens perceive the role of Europe in their own continent and the process of European integration, more generally.

The social dimension of the EU-CELAC relation should also be taken into consideration. Research could look at the impact of the EU-CELAC relation on the promotion of social cohesion in the two regions and at how different approaches to fight social exclusion and regional disparities can be successfully shared and applied to different contexts.

Research should be focused on those areas that are deemed crucial to explain the current state of play of relations between EU and LAC, and those that are considered strategic for future interaction and cooperation between the two regions.

Proposals shall include at least three legal entities established in three different LAC countries. However, an even broader participation of international partners from the LAC countries in proposals submitted to this call is encouraged.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2.5 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: Research under this topic will provide a better understanding of the cultural, scientific and social dimension of the relationship between the EU and LAC, thus supporting the process of EU-CELAC cooperation outlined by the EU-CELAC Action Plan 2013-2015 in defining a common vision for the years to come.

Research will contribute to the understanding of the role of social actors in both societies and to encourage mutual knowledge between the two regions, thus feeding into the work of the EU-LAC Foundation. Research is also expected to inform the on-going bi-regional networking activities of the JIRI and the work of the Trans-Atlantic Platform for the Social Sciences and Humanities (T-AP).

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1064-int-12-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)



## Call – “New Forms of Innovation”

**Call Identifier:** H2020-INSO-2014/2015

**Publication Date:** 11 December 2013

**Deadlines for 2015 Topics:** 28 May 2015 (17.00.00 Brussels local time)

The Call “New Forms of Innovation (H2020-INSO-2014/2015)” is divided into several “sub-calls”. The URL links to the relevant call and to further information on the participant portal are listed under the individual topics.

### ***INSO-1-2014/2015: ICT-enabled open government***

Specific challenge: Public administrations need to address the new challenges posed by the evolution of society. Financial constraints are making this task difficult. At the same time, expectations - in terms of burden reduction and efficiency of public services - are growing.

The take-up of new technologies, such as social media and mobile technologies, leads to increased connectivity.

The availability of open data and open services, in an open government setting support the collaborative forms of service design and delivery and they increase transparency.

Personalised public services can arise from enabling and empowering citizens and businesses to directly participate in the design, creation, selection and delivery of some of the public services. Collaboration with users plays an important role in the transformation of public services. Public services delivered or enabled by ICT need to be easy to use and shall increasingly focus on flexible and personalised interactions with public administrations. Given the availability of data, users may be provided more pro-active, higher quality and valuable services. This can make services more attractive and increase collaboration. While creating growth and jobs, M-government can make services effective by adjusting them to the way citizens are communicating and delivering them to a variety of mobile devices in order to accommodate the on-going transition from stationary to mobile.

Transparency is an important element of the open government approach. Open data and information lead to more transparency. Openness and technology tools can also enable monitoring of the public sector and its performance. Transparency helps to increase accountability and trust in administrations.

#### Scope:

##### a) Innovation actions

The actions should address at least one of the sub-objectives (i or ii) below, which should be piloted against a set of clearly defined goals:

i) Pilots on personalised and mobile public services which will aim to benefit from one or more of the following:

- Intelligent and innovative use of large volumes of publicly available data for new, smart and mobile public services;
- Using open services and enabling any actors, including users, to create or co-produce new public services;
- Pro-active and personalised citizen-centric public service applications; this can be according to a user profile created and controlled by the user and structured around modular public services;

- **Following changes in user behaviour in accessing and using such services and supporting the organisational and back-office implications, including privacy.**

ii) Pilots on transparency which will aim to benefit from one or more of the following:

- Actions will aim to pilot tools to increase the transparency impact of ICT-based technology platforms of the public sector;
- The transparency tools to be piloted will benefit from open data and could help in monitoring, enhancing accountability and fighting corruption (e.g. through data mining and other tools).

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

These innovation actions should include an assessment of the effectiveness as well as social and economic impact of using these approaches to deliver the public administrations' goals. The results of these assessments should also provide feedback into a set of recommendations for future use of these approaches to deliver more effective public administration.

b) Coordination and support actions:

The activities should aim at encouraging networking of relevant stakeholders and teams working in these areas and to support constituency building. The dynamic, multidisciplinary network will include social and economic expertise in addition to ICT experts and other relevant stakeholders. Following an assessment of the needs, the network will carry out a gap analysis and identify potential applications for their successful implementation in the public sector. The activities will include the mobilisation of developers and civil servants (through events, hackatons, etc.) and awareness raising among end users in order to increase take-up of relevant newly developed eGovernment applications.

Expected impact:

- Stimulating the creation, delivery and use of new services on a variety of devices, utilising new web technologies, coupled with open public data.
- More personalised public services that better suit the needs of users.
- Reducing the administrative burden of citizens and businesses (e.g. collecting information from citizens only once).
- Increased transparency of and trust in public administrations.

Type of action: a) Innovation actions, b) Coordination and support actions

Call information (for 2015):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-inso-2015-cnect.html>

Topic Information (for 2015):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2477-inso-1-2015.html>

Deadline for 2015: 28 May 2015 (17.00.00 Brussels local time)

***INSO-5-2015: Social innovation Community***

Specific Challenge: The specific challenge of this activity is to stimulate and support the establishment of a 'Social Innovation Community' of researchers, social innovators, end users (citizens) and policy-makers. Since the launch of the Innovation Union Flagship initiative in 2010, many actions have developed in the area of social innovation involving research and “hands on” innovation. However many related actions in the field may appear disconnected and not fully exploit the possibilities offered by more effective communication and dissemination means. This could limit the policy uptake of research results.

What is needed is to better link research to practice, develop joint methods and concepts in the area of social innovation research and provide a common space for gathering evidence and identifying new areas for social innovation take up in various fields.

Scope: The scope is that of creating a Community, involving social innovators, researchers, citizens, policy makers, which will bring together on the one hand research actions and results and on the other implementation actions, new initiatives, and policy developments. **It will systematically provide evidence and create greater synergies between social innovation activities and related EU policies. It will help promote social innovation initiatives throughout Europe, increase relevance of policies and actions, and contribute to the development of a common understanding of the necessary framework conditions and related socio-economic implications of social innovation policies, activities and initiatives in Europe and beyond.**

Within the scope of the action are **evidence and methodologies that contribute to social innovation up-scaling**. This does not concern only European but also international developments. Such a social innovation community could be seen also as a “network of networks”. In particular the Community will take account of existing networks and platforms in the field, and build upon and expand existing coordination actions with active communities of practices and related stakeholders.

Activities should include:

- the organisation of brokerage events to enhance the networking of on-going research and experimentation projects and other activities in the area of social innovation to enhance, inter alia, a cross-project understanding of the concept of social innovation;
- information and awareness activities through the gathering of researchers and various stakeholders, including civil society organisations, citizens' groups, private actors, policy-makers, user groups and other networks;
- design strategies/activities for ensuring the best possible use of the research results and setting up of a mix of dissemination tools targeting different stakeholders at EU, national and local level;
- **the organisation of events aimed at identifying priorities for collaboration and research gaps and needs, and enhancing the quality, quantity and visibility of future actions in the area of social innovation;**
- supporting grassroots experiments, replication, incubation and policy uptake of research results ('up-scaling');
- setting up of a network of 'Local Facilitators' for a better dissemination and uptake at all levels.

The Commission considers that proposals requesting a contribution from the EU in the order of 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.

Expected impact: The 'Social Innovation Community' will enable convergence towards a common understanding of social innovation as a tool and outcome. It will help to provide more effective measures and a better use of resources. The Community will facilitate the

policy uptake of research results and experimentation activities. Evidence-based policy-making will be strengthened by supporting learning processes of 'what works'/'what does not work' and under what conditions.

This will contribute to more social innovation initiatives from the ground, new possibilities for up-scaling of small social innovation experiments, and new tools of policy making in the field, thereby accelerating social innovation for growth.

Type of action: Coordination and support actions

Call information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-inso-2015.html>

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2476-inso-5-2015.html>

Deadline: 28 May 2015 (17.00.00 Brussels local time)

## 1.6 Societal Challenge 7 - Secure societies – Protecting freedom and security of Europe and its citizens

**Call – “Disaster-resilience: safeguarding and securing society, including adapting to climate change”**

**Call Identifier:** H2020-DRS-2014-2015

**Relevant Sub-Call for 2015 Topics listed below:** H2020-DRS-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-drs-2015.html>

**Planned Opening Date:** 25 March 2015

**Deadline for 2015 Topics:** 27 August 2015 (17.00.00 Brussels local time)

***DRS-11-2015: Disaster Resilience & Climate Change topic 3: Mitigating the impacts of climate change and natural hazards on cultural heritage sites, structures and artefacts***

Specific challenge: Europe's cultural heritage is being lost at an alarming rate, not only due to natural decay and human impacts but frequently also as a result of environmental changes, climatic conditions or natural hazards. This non-renewable resource, in all its diverse physical forms needs safeguarding for future generations. Cultural heritage, an important component of individual and collective identity, also fuels Tourism in Europe, a significant economic sector on which many communities depend. However, the increased frequency and intensity of extreme weather events together with risks associated to natural hazards

present an added challenge for the sustainable management and conservation of cultural heritage in Europe, calling for improved adaptation and mitigation strategies in this vulnerable sector.

Scope: The proposal should aim to develop **eco-innovative solutions** to help mitigate the effects of climate change and natural hazards on cultural heritage sites, structures and artefacts **taking into account the values they hold for people and respecting their historic and cultural integrity**. Effective **adaptation strategies**, systems and technologies are needed for better **risk management** of vulnerable heritage materials and for mitigating damage to cultural heritage assets. Proposals may include case studies and address any research gaps or barriers needed to respond to this challenge, including aspects relating to innovative environmental assessment methodologies, integrated monitoring technologies and systems, improved non-invasive and non-destructive methods of surveying and diagnosis including wide area surveillance, cost-effective conservation and restoration techniques, risk management, disaster prevention and quick damage assessment when catastrophes occur.

The Commission considers that proposals requesting a contribution from the EU between the range of 6 to 8 million euro would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact: More sustainable and effective safeguarding and management of European cultural heritage through more reliable predictive and cost effective maintenance, improved risk management, diagnosis and treatment and a better understanding of the historical and technological contexts of heritage materials and objects. More effective advice and input to restoration and adaptation policies of government organisations thereby promoting improved practices for the guardians of cultural heritage assets. Reduced fragmentation in this sector through increased collaboration and cooperation and a fostering of an interdisciplinary approach.

The action is expected to proactively target the needs and requirements of users, such as decision makers at local, regional, national and international level responsible for disaster mitigation and safeguarding of cultural heritage assets.

Type of action: Research & Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1085-drs-11-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

### ***DRS-14-2015: Critical Infrastructure Protection topic 3: Critical Infrastructure resilience indicator - analysis and development of methods for assessing resilience***

Specific challenge: A better understanding of critical infrastructure architecture is necessary for defining measures to achieve a better resilience against threats in an integrated manner including natural and human threats/events (e.g. due to human errors or terrorist/criminal attacks).

Scope: A holistic approach to the resilience of critical infrastructure should be followed, addressing a broad variety of issues **including: human factors (i.e. safety issues radicalization), security, geo-politics, sociology, economy, etc. and increased vulnerability** due to changing threats.

Critical Infrastructure resilience is the ability to reduce the impact of disruptive events and the recovery time. The analysis of resilience should therefore not only focus on potential threats

caused by attacks or accidents (human error or terrorist/criminal attacks), but also on the expected developments in these areas and the impacts and potential challenges of new technologies. **Proposals should also address the need for a paradigm shift in the area of design for safety and resilience.**

The proposal shall demonstrate that a set of common and thoroughly validated indicators, **including economic indicators**, could be applied to critical infrastructures in order to assess its level of “resilience”, moreover a scale approach of “resilience” level should be proposed across critical infrastructures (energy grids, transportation, government, nuclear research infrastructures, water, etc.). The developed methodology shall be based on at least four types of critical infrastructure as test cases. Specific models and modeling approaches will be proposed and developed that facilitates the understanding and modeling of security risks and the related impact. Moreover, security metrics and indicators will be proposed that could be used in the developed models to quantify to the possible extent the considered risk and impact as well as give guidance to the possible mitigation techniques – approaches.

New methods and solutions of assessing resilience based upon comprehensive threat, criticality, and vulnerability assessments are of outmost importance. Proposals should follow a uniformed, comprehensive, and holistic approach at all levels (e.g. EU, country, local) including private organizations charged with protecting citizens, facilities, and infrastructure in order to anticipate current and emerging threats and security challenges.

Integrated concepts of resilience in interconnected infrastructures and cascading effects that have a devastating impact on the **functioning of society** should also be included.

The Commission considers that proposals requesting a contribution from the EU of between €3m and €5m would allow this specific challenge to be addressed appropriately (similar to the FP7 Capability Projects described in the general introduction). Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact: Better risk assessment of different areas of critical infrastructures (energy grid, water supply, transport, communication, etc.) by taking into account interdependencies.

More effective and comprehensive methodology using uniform and consistent data from known Critical Infrastructure Protection threats in an integrated manner to develop a resilience level based on summations of various “indicators” (technical and non-technical, i.e. human factors).

The action is expected to proactively target the needs and requirements of public bodies.

The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL) 4; please see part G of the General Annexes.

Type of action: Research & Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1088-drs-14-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

***DRS-15-2015: Critical Infrastructure Protection topic 4: Protecting potentially hazardous and sensitive sites/areas considering multi-sectorial dependencies***

Specific challenge: There is a need to **better understand how society as a whole might be affected** by risks of accidents, natural disaster or terrorist attack on sensitive sites/areas (involving potentially hazardous substances), in order to enable effective protection measures to be developed. In this respect, the breadth of impacts from Seveso type sites/areas has to be investigated, considering multi-sectorial (inter-)dependencies (notably



transport, energy, communications, water). This implies developing knowledge on multiple types of sectors and socio-economic conditions around Seveso type sites/areas that might be affected by accidents, taking into account the type of sites/areas, CBRNE substances of concern, the vulnerability of various sectors and their dependencies/interactions and of the population, risk evaluation based on advanced decision making techniques and scenarios mimicking different levels of severity of impacts.

Scope: Research should **include analysis of risks and strength/vulnerabilities, identification of alternatives resources and focus on the development and testing of qualitative methods that involve identifying links between sectors** (multi-sectoral dependencies: systems and connection nodes definition and modeling) and evaluating how impacts from a Seveso type accident might affect them (cascades effects). Quantitative impact assessment tools should also be developed **to evaluate socio-economic impacts** of such accident. Small-scale demonstration activities focusing on SMEs should be considered.

The Commission considers that proposals requesting a contribution from the EU of between €3m and €5m would allow this specific challenge to be addressed appropriately (similar to the Seventh Framework Programme Capability Projects described in the general introduction). Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact:

- better preparedness to Seveso type site/area related accidents via improved protection measures (including people training and education);
- more effective assessment and decision-making related to the potential severity of a CBRNE accident, in particular regarding ways to decrease the cost of this kind of crisis and develop adequate protection measures in the light of established policy goals;
- better risk assessment to evaluate different sectors, regions or populations for comparing them in terms of relative vulnerability to help set priorities that can guide the allocation of protecting measures financing appropriately;
- enhanced understanding by policy-makers and other stakeholders on how multiple sectors, community, region or nation could be affected in total by an accident from a Seveso site/area, and what the total impact might be (material, human, economic). The action is expected to proactively target the needs and requirements of public bodies and industry. The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL)5; please see part G of the General Annexes.

Type of action: Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1089-drs-15-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

***DRS-22-2015: Ethical/Societal Dimension topic 3: Impact of climate change in third countries on Europe's security***

Specific challenge: Climate change in Third Countries is a real threat to security of the European Union. Extreme weather or other climate events which devastate lives, infrastructure, but also institutions and budgets can have disastrous consequences on European security, as climate-driven crises occurring outside the EU can have detrimental

effects and direct or indirect security implications on the Union (e.g. climate-driven migration forcing large number of people to move from their homelands to another country – EU Member State; supply chain security; food security; reliance on imports of raw material etc.), including EU assets in third countries.

Therefore, **adequate political, strategic and institutional responses should be found** in order to enhance international and European cooperation on the detection assessment and monitoring of the security threats in Europe related to climate change in other regions of the world. European policy makers and analysts as well as national governments should tackle climate change as today's non-traditional security hazard.

The research aims at facilitating the adoption of a comprehensive approach, with a view to help minimising negative consequences of climate-driven crises.

Scope: Proposals in this field may focus on the following issues:

- Taking into account past and on-going EU research, this topic should thoroughly examine the **specific causes and the impact** of climate-driven crises on European security.
- **What kind of instruments, tools, and actions can be used alongside mitigation and adaptation policies** to address the climate change security risks?
- Which could be the most efficient ways of **developing contingency plans** for the EU's response to the effects of climate-driven crises occurring outside the Union that have direct or indirect security implications on the Union?

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

Expected impact: This action will help stakeholders to better understand consequences of climate change events in Third Countries and its security implications for the EU.

It will provide a framework for improving situation analysis and policy planning at the EU level.

It will thus lead to earlier and better reaction of climate induced security implications by public authorities in the EU. The action is expected to proactively target the needs and requirements of users, such as European policy makers and analysts as well as national governments.

Type of action: Coordination and Support Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1090-drs-22-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

**Call – “Fight against crime and Terrorism”****Call Identifier:** H2020-FCT-2014-2015**Relevant Sub-Call for 2015 Topics listed below:** H2020-FCT-2015**Call Information:**<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-fct-2015.html>**Planned Opening Date:** 25 March 2015**Deadlines for 2015 Topics listed below:** 27 August 2015 (17.00.00 Brussels local time)***FCT-2-2015. Forensic topic 2: Advanced easy to use in-situ forensic tools at the scene of crime***

Specific challenge: Rapid developments in technologies and communication in various fields go hand in hand with new opportunities for forensic science to investigate more and a greater variety of traces, to extract more information from less material, quicker than ever before. In order to keep the standards of forensic science in Europe at a high level regarding juridical and technological questions. Meanwhile, organised crime and criminals do not limit themselves to regional or national borders. Their crimes are thus leaving traces in multiple countries. Cross border access to evidence has become an absolute necessity for Law Enforcement Agencies (LEA) and judicial authorities.

Evidence gathering, collection and exchange at EU level should be usable from the field to the judge, independently of the technology used to commit the crimes and of where the crimes have taken place. Rapid developments in technologies and communications in various fields go hand in hand with new opportunities for forensic science. .

Proposals for this topic should take into account the existing EU and national projects in this field, such as the Council Conclusions on the vision for European Forensic Science 2020 which foresee the creation of a European Forensic Science Area and the development of forensic science infrastructure in Europe."

Scope: Proposals for this topic should focus on the development methodologies of tools and EU-wide standards for the secure storage, smart visualisation, access and the rapid exchange of forensic data supporting evidence.

A multianalytical platform integrating different techniques should be proposed in order to achieve better strategies for gathering and analyzing evidence in the field of forensic research. Relying on knowledge-based fields such as artificial intelligence, machine learning, different procedures, tools and algorithm should be developed within this platform, based on the standard outlined above.

Specific areas of research could be:

- Development of an analysis platform that could be deployed at the scene of the crime and which can be validated against the currently used forensic guidelines and standards.
- The establishment of a EU-wide databases on, for instance, new synthetic drugs and drug precursors, The creation of tools for tracking virtual currencies implicated in criminal transactions.
- Other types of pan-Eu databases on recognition.

In addition due to the variability and the wide range of crime types, procedures or methodologies should be developed or adapted to the specific crime features. Moreover, **horizontal strategies could be proposed for profiling crimes or offenders and matching and predicting different type of crimes. This should lead to the establishment of a catalogue of these procedures or methodologies.**

The development of a base line system for current and future end users should also be envisaged and the solution should follow Open Source concepts.

Where necessary new technologies should be developed for sampling, analysing, evaluating, interpreting and recording forensic evidence, with a view to achieve solid and court-proof forensic evidence that can be used during legal prosecution.

The use of the most advanced information technologies should allow improving and upgrading the current forensic systems in the European police institutions. The scope of the proposed tool should involve law enforcement bodies from the design phase to the prototyping and test phase.

Proposals addressing this topic may involve the use of classified background information (EU or national) or the production of security sensitive results. As such, certain project deliverables may require security classification. The final decision on the classification of projects is subject to the security evaluation.

The Commission considers that proposals requesting a contribution from the EU of between €9m and €12m would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact: Projects under this topic should lead to the development of novel easy to use in-situ forensic tools, customised to the specific needs of EU LEA. Better profiling of crimes and offenders. Quicker matching of different types of crime. Shorter court cases due to the availability of more solid court proof forensic evidence. For industry better understanding of modern operational LEA requirements, thus increasing their competitiveness.

Considerable improvement in the field of public security and improved trust of the citizen in the work of police forces in the EU.

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.

Type of action: Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1114-fct-02-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

#### ***FCT-4-2015: Forensics topic 4: Internet Forensics to combat organized crime***

Specific challenge: The Internet is nowadays at the core of any business activity. All large and distributed organisations rely on the Internet for the exchange of data, information, and knowledge, both internally and externally, so as to organise and run their activities. Organized crime is no exception. The Internet has become an important tool for criminal organisations to carry out illegal activities. Research under this topic should refer to Internet Forensics as the set of investigation techniques concerned with Internet as a media used by organised crime in general - mainly to communicate and exchange data and information. A further and specific challenge is represented by the camouflage of the real nature of the

concerned data and information. Due to the borderless nature of the Internet, specific trans-border aspects should be considered when dealing with Internet Forensics. Therefore, aside from the relevant technological aspects, legal and organisational issues like the co-ordination of different Law Enforcement Authorities (LEA) and the harmonisation of the different legal frameworks have to be addressed.

**Scope: Proposals should focus on how to extract, compare, correlate, filter, reason over and/or interpret suspect information, data, communications stored and/or transferred on the Internet including on the deepweb, darknet and other less easily accessible parts of networks**, obtained under a lawful warrant, in order to discover facts and evidence to support forensic investigations (including e.g. resolving identities in social networks, authorship identification on webfora, shared media, etc.). Software and, if necessary, hardware tools, methods and guidelines should be proposed. They should tackle all the layers of analysis, from the data-packet level to the data mining, **to language interpretation, semantic analysis, and information retrieval, including the multi-lingual aspects, and video and picture analysis**. Investigative techniques on any kind of crime using the Internet to some extent (to communicate, transfer data, etc.) should be concerned. The proposed solutions should enable accelerated searches of the huge amount of data-transfer that occurs on the Internet, and to discover and make clear (interpret) out of it the relevant data and information. At the same time, limited, or at least controlled, pervasiveness of the proposed solutions must be guaranteed, in order to guarantee the privacy of all the internet users. **Ethical issues have to be clearly addressed. Appropriate solutions to fulfil the legitimate request of privacy by the citizens should be embedded in the very core of the proposed solutions**. Also, all the developed tools, methods and guidelines should be supported by training support and curricula.

Where necessary new technologies should be developed for sampling, analysing, evaluating, interpreting and recording forensic evidence with a view to achieve solid and court-proof forensic evidence that can be used during legal prosecution.

The development of a base line system for current and future end users should also be envisaged and the solution should follow Open Source concepts.

Proposals will have to deal with the management of personal data, and related ethical and legal issues. Therefore considerable attention will have to be given to privacy and data protection, and to the adherence to European regulations. For each proposed solution, potential issues vis-à-vis these rights and regulations will have to be analysed, and recommendations on the best solutions to these issues must be proposed.

The Commission considers that proposals requesting a contribution from the EU of between €3m and €5m would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact:

- improved LEA capabilities to conduct investigations by using information travelling and stored on the Internet obtained under a lawful warrant ;
- improved training of LEA staff able to perform these investigations. increased crime prosecution capabilities;
- shorter court cases due to the availability of more solid court proof forensic evidence; - increased privacy and data protection during forensic investigations; - for industry better understanding of modern operational LEA requirements, thus increasing their competitiveness.

The outcome of the proposal is expected to lead to development from Technology Readiness Levels (TRL) 6 or above ; please see part G of the General Annexes.

Type of action: Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1116-fct-04-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

***FCT-9-2015: Law Enforcement capabilities topic 5: Identity Management***

Specific Challenge: New means and technologies of communication the growing interactive usage of the internet, the rise of social media and the internet of things lead to a change in handling identity related data for law enforcement agencies and border management. These circumstances and the general digitalisation of society result in a significant qualitative and quantitative revaluation of the subject identity. As identity trust and security are central drivers for economic and societal development a framework for a reliable e-identity ecosystem needs to be set up. Such an e-ID ecosystem would safeguard the fundamental parameters of identity management: security – efficiency – user friendliness – trust – privacy and data protection. Enhanced public security and better (digital) privacy protection will become part of the same consistent European identity strategy.

Identity Management will play a pivotal role in this system.

Identity Management starts with proper breeder documents, other identity documents including their lifecycle and goes to identification and verification for physical and virtual access as well as virtual identities in secure applications and social networks. In all these areas of identification, security is severely endangered, if identity fraud has taken place. It is very well known, that cases of identity fraud and wrong identity are heavily involved in people trafficking and organized crime. Additionally, identity fraud in virtual places leads to theft, misuse of information and cyber-mobbing. Therefore, new processes, technologies and security features needs to be developed to increase or hold the high level of quality of security documents and corresponding processes..

Scope: Technological, organizational **and societal means** necessary for a European electronic identity ecosystem will be identified, researched and tested:

- New security features with corresponding quality control and checking technologies
- Enhanced document lifecycle processes
- Harmonized document processes and security features
- Technologies for linking physical and virtual identity
- Combination of biometric technologies and administrative processes for identification management
- **Identification of the necessary legal and societal steps to safeguard trust and data protection**
- **Identify patterns in identity fraud and highlight associated social networks**
- Take into account and build upon results and findings of existing research projects that potentially may contribute to an European electronic identity ecosystem

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

Expected impact: A European e-identity ecosystem (potentially tested on a national test-bed level) would create a decisive competitive advantage for Europe on the global level. New



technologies and processes in identity management will ease the work of border management and law enforcement authorities as the identity verification becomes more reliable. The personal security increases due to reduced risk of identity fraud and cyber mobbing. Finally, improved id documents will make people trafficking and organized crime more difficult. A European e-identity ecosystem should make use of existing research results in this field to the highest possible extent to optimise funding impact.

The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL) 4; please see part G of the General Annexes.

Type of action: Research and Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1118-fct-09-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

***FCT-15-2015: Ethical/Societal Dimension Topic 3: Better understanding the role of new social media networks and their use for public security purposes***

(SSH dedicated topic)

Specific challenge: The internet has become a central part of modern life. Omnipresent social media, especially media sharing platforms, chat sites, web forums, blogs radically change the way current societies operate. That is why these instruments attract more and more attention from public security planners.

Scope: This topic shall look at the role and purpose of social media and the relationship between the new social networks and public security. Research to be coordinated by this activity may focus on analysing the following issues:

- To what extent are social media likely to influence public security planning?
- Shall the adoption of social media across the public security community be treated as a threat or a tool for public security purposes?
- Shall the potential of social networking tools be explored by public security agencies for example in order to predict future trends or identify possible threats?
- To which extent, in the age of the connected society, are social media used in the eve of urban violence and riots? How can the understanding of the different social media influence on the populations lead to the shaping of new forms of policing in the public space?
- What are the ethical and legal implications, for instance with reference to the respect for fundamental rights, of public agencies using social media information for security planning purposes?

Special attention should be paid to ethical privacy and data protection aspects.

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

Expected impact: Better understanding among research organisation across Europe: of how social media can be used for public security purposes, in particular for better prediction and identification of possible future threats, and of the challenges, opportunities and risks for public security agencies of using social media. The action is expected to proactively target

the needs and requirements of users, such as law enforcement agencies, citizens and public security planners.

Type of action: Coordination and Support Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1119-fct-15-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

***FCT-16-2015: Ethical/Societal Dimension Topic 4 - Investigating the role of social, psychological and economic aspects of the processes that lead to organized crime (including cyber related offenses), and/or terrorist networks and their impact on social cohesion***

(SSH dedicated topic)

Specific challenge: There is a need for a deeper understanding of processes that lead to organised crime and terrorist networks. This needs to be examined from a social science, psychological and economic perspective. Where appropriate, research should also take into account the potential impact of organized crime on cohesion of societies.

Research on the human and economic factors in (cyber) crime has not kept pace with research and innovation regarding its technological dimensions. Yet, while the latter may be able to defuse a threat, it does not tackle its causes and remedies. The research needs to address a human and economical point of view in addition to a technological focus. By taking multi-disciplinary approaches, integrating the social, economical and technological sciences a new light is shed on the human factor in (cyber) crime. Proposers of projects seeking to understand cyber-crime should be aware of this emphasis.

Scope: Research should investigate the role of social, psychological and economic factors in progression of individuals who had unremarkable and ordinary lives into organised crime and terrorist networks. It could also take into consideration the analysis of the institutional environment in which these processes take place, as well as the possibilities of connection between the emergence of these damaging organizations and the problem of trust in social dynamics.

This research may, for instance, examine the role of friendships, kinships, milieus and peer groups of (social) networks and social media. It could cover short- mid- and long term trends pertaining to the impact of organised crime and terrorist networks on societal vulnerabilities.

It may also examine the characteristics of individuals that leave them susceptible to these influences and/or social conditions conducive to organised crime. The analysis may also take into account state of the art of theory and research on inclusion and social cohesion and apply economic measures (like e.g. Gini index), but also more qualitative social indicators (e.g. political participation, discrimination on the basis of race, age, class and gender).

Research could also look into communication processes within and between networks, as well as into processes that lead to terrorist cells.

Proposers could also adopt a further approach by focusing on the impact of social cohesion in the prevention of individuals' engagement in organized crime and terrorist networks.

Proposers need to develop solutions in compliance with European societal values, including privacy issues and fundamental rights. Societal aspects (e.g. perception of security, possible side effects of technological solutions, societal resilience) have to be taken into account in a comprehensive and thorough manner.

The Commission considers that proposals requesting a contribution from the EU of between €3m and €5m would allow this specific challenge to be addressed appropriately (similar to the FP7 Capability Projects described in the general introduction). Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

In line with the EU's strategy for international cooperation in research and innovation<sup>36</sup> international cooperation is encouraged, and in particular with international research partners involved in ongoing discussions and workshops, and US homeland security research entities. Funding for third countries is however still subject to the evaluations.

Expected Impact:

- Better understanding of the origins and development of organised crime and terrorist networks;
- Better understanding of the process underpinning the progression of individuals from non-violence into violence;
- Enhanced ability to identify individuals at risk of joining or forming organised crime and terrorist networks;
- Enhanced ability to identify organised crime and terrorist networks in an early stage;
- Enhanced ability to prevent the emergence of organised crime and terrorist networks, and respond to the threat of existing organisations;
- Where appropriate to the project, give insights for policy makers at different levels (regional, national, European, international) into ways to improve social cohesion. The action is expected to proactively target the needs and requirements of users, such as policy makers at different levels (regional, national, European and international). The outcome of the proposal is expected to lead to development up to Technology Readiness Level (TRL) 4; please see part G of the General Annexes.

Type of action: Research & Innovation Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1120-fct-16-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

## Call – “Border Security and External Security”

**Call Identifier:** H2020-BES-2014-2015

**Relevant Sub-Call for 2015 Topics listed below:** H2020-BES-2015

**Call Information for 2015:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-bes-2015.html>

**Planned Opening Date:** 25 March 2015

**Deadline for 2015 Topic listed below:** 27 August 2015 at 17.00.00 Brussels time.

***BES-13-2015: Conflict prevention and peace building topic 2: Training curricula for Conflict Prevention and Peace Building personnel***

Specific challenge: Over the last ten years, the Commission has become increasingly active in the field of Conflict Prevention and Peace Building (CPPB). This involvement is likely to further increase over the years to come and a more extensive use of the articles 42 to 46 on the Common Security and Defence Policy (CSDP) of the Treaty on European Union.

Scope: Projects under this proposal should:

- **review current understanding and training relating to conflict prevention and peace building in order to take into account current practice, including the effect of outsourcing of some security work, and the potential divergences in understandings; and**
- **develop new training methods in the field of civilian conflict prevention and peace building such as: conflict prevention, mediation, Security System Reform (SSR), Linking Relief, Rehabilitation and Development (LRRD), anti-corruption, early warning systems, etc.**

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

Expected impact: New training curricula for enhancing the preparedness and skills of personnel for conflict prevention and peace keeping missions especially in high risk countries. Thus contributing to more efficient and effective conflict prevention and peace keeping missions. Ultimately, this should reduce the costs of such missions, whilst at the same time contribute to a more efficient implementation of the CSDP.

Type of action: Coordination and Support Actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1104-bes-13-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)

**Call – “Digital Security: Cybersecurity, Privacy and Trust”**

**Call Identifier:** H2020-DS-2014-2015

**Relevant Sub-Call for 2015 Topic listed below:** H2020-DS-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ds-2015-1.html>

**Publication Date:** 11 December 2013

**Deadline for 2015 Topic listed below:** 27 August 2015 (17.00.00 Brussels local time)

***DS-7-2015: Value-sensitive technological innovation in Cybersecurity***

Specific challenge: New digital technologies are all around us but their impact on society is often difficult to assess, let alone predict. The rapid development and expansion of the digital ecosystem confronts society with numerous challenges to ensure trust and confidence of citizens in and the legitimacy of highly complex, dynamic and hyper-connected systems.

As recognized in the EU Cybersecurity Strategy the same norms, principles and values that the EU upholds offline, should also apply online. The challenge is to define what is needed to ensure a flourishing information society which offers safety and security and at the same time respects Europe's fundamental values and rights.

It is therefore essential to ensure that new and innovative cybersecurity technologies are designed to incorporate European values and fundamental rights, which include autonomy, equality, privacy, combined with fairness and accountability and ensure the 'right' level of control individuals can exercise over their actions and the technology they utilize. Often, these values might be in competition with one another.

In this context, it is also crucial to understand the role of the public and the private sector concerning the acceptance and acceptability of digital technologies in a networked environment in order to allow citizens to make informed and responsible choices regarding innovative products and services leading to a strong European market for innovative and effective cybersecurity technology

Proposals are encouraged to engage with public security end-users and/or private end users.

Scope: The coordination and support activity **should facilitate community building and deepen understanding involving relevant stakeholders from civil society, research, industry and public bodies in order to develop a comprehensive knowledge for the EU of the challenges and opportunities for value-sensitive ICT innovation** in a trustworthy digital society.

In particular, work in this topic should focus on:

- Developing ways to **determine the relation between the perceived risks and benefits of new technologies** in the field of digital security and **their associated acceptability and acceptance**;
- Defining mechanisms to determine **how our fundamental values and rights can be taken into account** in the development process of new technologies to ensure that they are applied when used in innovative services and products;
- **Proposing rules and guidance on how these new technologies will safeguard these values and rights**;
- **Identifying existing best practices on cybersecurity norms and rules accommodating European values and rights**;
- **Drafting standards and guidelines** for industry and the public sector to enable consumers to exert a high level of control over devices and services as well as to ensure accountability with respect to the acceptable usage of new digital technologies; and
- Identifying the key factors for promoting a secure and innovative ecosystem through fostering the creation of secure technologies in line with European values.
- **Addressing the specific needs of the end-user, private and public security end user alike.**

Expected impact:

- Better understanding of the mechanisms that lead to the acceptance of risks associated with new digital services in a networked environment and of the ways how acceptability of new services can be maintained;
- Providing better understanding of the links between risk perception of societies and cyber security;
- Deeper insight into how networked ICT, autonomous system and devices as well as services influence the perception of citizens with respect to security and their values of for instance freedom and autonomy;
- New approaches for users to exercise control over their data and maintain the desired autonomy of their actions in the digital domain while instigating innovative business models for value-sensitive ICT products and services;
- Recommendations for regulatory measures necessary for a responsible and sustainable development and use of cyber technology; and
- Establishment of a broad and durable constituency, which supports the uptake of results and further work beyond the lifetime of the project.

Type of action: One Coordination & Support Action

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9071-ds-07-2015.html>

Deadline: 27 August 2015 (17.00.00 Brussels local time)



## 2. Horizon 2020 Priority: Industrial Leadership

### 2.1 Leadership in Enabling Industrial Technologies

#### Call - “Nanotechnologies, Advanced Materials and KET support actions” (NMP)

**Call Identifier:** H2020-NMP 2014/2015

**Relevant Sub-Call for 2015 Topic listed below:** H2020-NMP-CSA-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-nmp-csa-2015.html>

**Planned Opening Date:** 22 October 2014

**Deadlines:** 26 March 2015 17:00:00 (Brussels local time)

#### ***NMP 32 – 2015: Societal engagement on responsible nanotechnology (minor relevance)***

**Specific challenge:** Transparency, knowledge and societal engagement are key factors in addressing societal concerns regarding the use of nanotechnology, including nanomaterials. An essential element of a safe and responsible nanotechnology governance is an effective and informed dialogue with all stakeholders, enhancing public confidence in nanotechnologies.

**Scope:** The proposed action should **identify current best practices in societal engagement** to establish a multi-stakeholder platform at EU and/or at national level in a number of EU Member States and Associated Countries, involving a balanced representation of researchers, Civil Society Organisations (CSOs) and Non-Governmental Organisations (NGOs), **scientists in the field of Social Sciences and Humanities**, industry and policy-makers to **develop a shared understanding of the current and potential future** (economic, social and environmental) benefits and risks of advancing nanotechnology. This action is to be based on the concept of Mobilisation & Mutual Learning (MML) Platforms.

The two main activities to be undertaken within this platform are a series of multi-stakeholder dialogues and training activities to address knowledge gaps between various types of actors and potential co-production of knowledge. These dialogue meetings should consider the various questions of interest or information needs that emerge across the entire value chain (from R&D to production and distribution to use and waste processing or recycling), discuss **how to employ nanotechnologies to the benefit of society addressing societal challenges and identifying desired fields of innovation, whilst contributing to Responsible Research and Innovation**. The outcomes of the dialogue are to be fed back into policy making and research and innovation processes with joint stakeholder undertakings. In order to ensure that all participants have a common knowledge base, various training or information sessions should be organised to address any knowledge gaps that may impede a constructive dialogue.

The design of this platform and its activities should take into account and build on previous FP6 and FP7 activities and relevant EU and international policies and initiatives in this field. Gender balance should be taken into account in the make-up of the platform and **gender should be embedded in the dialogues on the content and impacts of nanotechnology research.**

The Commission considers that proposals requesting a contribution from the EU between EUR 500 000 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. No more than one proposal will be funded.

Expected impact:

- The direct and sustainable impact of this action will be to enhance the interaction between society, science and nanotechnologies in order to contribute to a responsible nanotechnology research and innovation at EU and national policy level and research processes.
- Involving civil society, social sciences and humanities, and industry groups in decision-making procedures and/or societal dialogue and engagement on nanotechnologies will increase awareness, enhance understanding between stakeholders' on their positions, needs, expectations and concerns, and enhance trust between them.
- The outcomes of the multi-stakeholder platform will contribute to responsible policy-making, better acceptability of nanotechnologies outcomes, a more inclusive European society and will lead to a roadmap to enhance societal engagement in nanotechnology.

Type of action: Coordination and Support Action

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2533-nmp-32-2015.html>

Deadline: 26 March 2015 17:00:00 (Brussels local time)

## Call – “Information and Communication Technologies Calls” (ICT) -

**Call Identifier for 2015:** H2020-ICT-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ict-2015.html#tab1>

**Planned Opening Date:** 15 October 2014

**Deadline:** 14 April 2015, 17:00:00 (Brussels local time)

***ICT 10 – 2015: Collective Awareness Platforms for Sustainability and Social Innovation***

Specific Challenge: The challenge is to harness the collaborative power of ICT networks (networks of people, of knowledge, of sensors) to create collective and individual awareness about the multiple sustainability threats which our society is facing nowadays at social, environmental and political levels. The resulting collective intelligence will lead to better informed decision-making processes and empower citizens, through participation and interaction, to adopt more sustainable individual and collective behaviours and lifestyles.

The challenge includes the deployment at larger scales of digital social platforms for multi-disciplinary groups developing innovative solutions to societal challenges.

Scope:

*a. Collective awareness pilots for bottom-up participatory innovation paradigms*

Proposals are expected to develop and test pilot solutions to clearly defined sustainability challenges by harnessing 'network effects', leveraging on **innovative combinations of distributed social networks**, sensor networks and knowledge co-creation networks. Such scalable experiments and prototypes are expected to gain evidence and better understanding on the processes about collective awareness.

These pilots should be grounded on recent developments in open data, open source, distributed social networking and open hardware. Pilots must seize the full potential of existing mobile communications, integration of networks and online collaboration and can make use of innovative integrated mobile sensing devices to create collective awareness of risks and opportunities. **They can pioneer crowdsourcing/crowdfunding solutions and new mechanisms for social innovation** whose expected return goes beyond GDP measures and traditional success indicators.

Pilots should be user-driven, involving existing communities of people, and possibly addressing a combination of sustainability areas. Participants should include not only industry and academia but also local communities, grassroots activists, hackers, social entrepreneurs, students, citizens, creative industries and civil society organisations.

Consortia are expected to be multidisciplinary in nature: participation of at least two entities from domains different than ICT technologies (**e.g. social sciences, psychology, economy, art, etc.**) is required.

Given their piloting nature, proposals are expected to be rather compact and small, even though projects including technology development and/or integration may require larger investments.

*b. Multidisciplinary research on collective awareness platforms (Internet Science)*

Multidisciplinary research and development proposals will provide a better understanding of the obstacles and opportunities which are fundamental to the development of collective awareness platforms.

Areas of research include but are not limited to **the motivations and incentives for online collaboration, the impact of extended awareness and peer pressure in driving more sustainable behaviours, defining online reputation mechanisms, and facilitating policy and technological developments addressing identity, anonymity, ethics, (user-centric) privacy preservation, monitoring of network neutrality, non-discriminatory access, collective governance (including Internet governance), new economic and value creation models beyond GDP, quality requirements for user-generated knowledge, visualisation of social interactions and trends.**

Attention should also be paid on how to manage online communities in smart manners, in order to extract a "wisdom of the crowds" which appropriately takes into account the individual knowledgeability in specific fields. Consortia are required to include at least two entities from domains different than ICT technologies.

*c. Digital Social Platforms (DSP)*

Digital Social Platforms will facilitate the transposition of existing or emerging participative and inclusive societal solutions to larger transnational scales through:

- engagement of additional stakeholders so far excluded from the innovation process (**removing barriers for users** at risk of exclusion and for those who consider themselves unsuited for participation),
- **creation of concrete incentives for cooperation** across countries and across domains, and
- **raising awareness, at societal, political and technological levels**, about the effectiveness and best practices of such solutions.

They can build on established and open multi-stakeholder networks and communities, such as European Innovation Partnerships, and apply a suitable ICT-enabled cooperative environment to support their expansion and governance, accelerating knowledge creation and innovation. Work should address bottom up innovation activities.

Proposals must address **critical factors for successful demand-driven societal innovation, including new collaborative business models** across established disciplines and borders. Findings should be transferable and scalable to other communities in different domains and societal challenges.

#### *d. Coordinating pilots and research activities in CAPs*

The aim is to support and coordinate experimental and scientific activities in this field, to compare approaches and distil best practices, involving and networking stakeholders from a rich variety of application areas and disciplines, and bridging real world community-driven pilots of digital social platforms with multidisciplinary research (e.g. Internet Science).

#### Expected impact:

##### *At innovation level:*

- Demonstration of the effectiveness, compared to existing solutions, of new bottom-up, open and distributed approaches exploiting network effects.
- Pioneering new promising models of participatory innovation based on open software, open data and open hardware.
- Capability to reach a critical mass and to transpose the proposed approach to other application areas related to sustainability.
- Effective involvement of citizens and relevant (and new) actors, as well as establishment of durable interdisciplinary collaborations in concrete application areas related to sustainability. Qualitative and quantitative indicators should be made available.
- (mostly for objective c:) Definition of new concepts and models for the development of digital social platforms, as well as their applicability to societal challenges and deeper understanding of social innovation processes.
- At scientific level:
- Evidence based understanding of the techno-social issues related to key aspects of the networked society; this impact can be amplified by the public availability of (privacy respecting) data collected in field trials organised by the pilots;

##### *At societal/social innovation level:*

- Demonstrating how collaborative concepts based on the Internet can offer solutions to societal and sustainability challenges, by making use of commons, collective problem solving, knowledge sharing, collaborative journalism, social exchange and community-wide participation at local and global scale.

- Achieving in the longer term the active citizen participation in decision making, collective governance (including global Internet governance), new democracy models self-regulation, new business and economic models. Collective awareness research is expected to demonstrate scalability, reusability of results and general applicability of proposed solutions at local or regional level.
- (only for objective c:) Transferability and scalability of the digital social platforms model, as well as of the services developed, to enlarged communities across borders: assessment of potential for replication, recommendations for effective scaling-up of social innovation activities.
- Measurable improvement in cooperation among citizens, researchers, public authorities, private companies, non-profit, non-governmental and any other civil society organisation in the development of new sustainable and collaborative consumption patterns, new lifestyles, and innovative product and service creation and information delivery.

#### Types of action:

- a. Research & Innovation Actions – The Commission considers that proposals requesting a contribution from the EU between EUR 0.5 million and EUR 2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.
- b. Research & Innovation Actions – Proposals requesting a Small contribution are expected
- c. Research & Innovation Actions – Proposals requesting a Small contribution are expected
- d. Coordination and Support Actions

#### Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9082-ict-10-2015.html>

Deadline: 14 April 2015, 17:00:00 (Brussels local time)

### ***ICT 19 – 2015: Technologies for creative industries, social media and convergence***

Specific Challenge: The demand is growing for high-quality content and new user experiences. At the same time, thanks to ubiquitous technology adoption, widespread use of mobile devices, broadband internet penetration and increasing computing power the consumption of content anywhere, anytime and on any device is becoming a reality. Consequently, developments related to content creation, access, retrieval and interaction offer a number of opportunities and challenges, also for the creative and media industries. In order to keep pace with the trends and remain competitive, those industries need to explore new ways of creating and accessing content. The opportunity to establish new forms of content and user engagement could be transformative to many businesses in creative and media industries.

#### Scope:

The focus is on research, development and exploitation of new or emerging technologies (e.g. 3D and augmented reality technologies) for digital content creation to support the creative and media industries and for unlocking complex information and media and interacting with them. The topic will be addressed by the following actions:

##### *a. Research & Innovation Actions:*

Research in new technologies and tools to support creative industries in the creative process from idea conception to production. The proposed tools should explore the potential of

technology to enhance the human creative process from the expression of ideas to experiment solutions. Where possible, collaboration and user-community interaction should be improved based **on research leading to a deeper understanding of the dynamics of co-creative processes**. The tools should be cost effective, intuitive, and be demonstrated in real-life environments relevant for the creative industries (such as advertising, architecture, arts, design, fashion, films, music, publishing, video games, TV and radio).

#### *b. Innovation Actions*

Demonstration of the viability of new technologies and validation of innovative solutions through large scale demonstrations, pilots or testing of use cases so as to guarantee sustainable deployment that facilitate convergence and integration between broadcasting, broadband Internet-based services, audio-visual and social media. Multimodal and multidisciplinary approaches for searching technologies responding to the **new demands from the content side (3D, user-generated, real-time media, social media,...) and from the user context (context-centric, semantic, relevant community feed-back,...)**.

This also includes new forms of experiencing environments (immersive, surrounding, multisensory and interactive, in any device, always connected).

#### *c. Coordination and Support Actions on Convergence and Social Media*

- **Facilitate research and policy exchange** in Convergence and Social Media: increased awareness of latest technological developments and research results among policy stakeholders and **increased awareness of current and future policy and regulatory framework** among researchers.
- Support R&D programmes/activities, dissemination of results and organisation of scientific and/or policy events in Convergence and Social Media. **Analysis and development of research agendas and roadmaps, pre-standardisation initiatives and stakeholder coordination** in Convergence and Social Media

#### Expected impact:

##### *Research & Innovation Actions*

- Validated novel ICT technologies and tools supporting the creation process and delivering measurable benefits for the creative industries as regards time and resource investment, and quality of output.

##### *Innovation and Support Actions*

- Development of new services as a consequence of the convergence of broadband, broadcast and social media.
- Further development of user experience in immersive environments and social media, especially in any device and mobile environments.

#### Types of action:

- a. Research & Innovation Actions – Proposals requesting a Small contribution are expected
- b. Innovation Actions – Proposals requesting a Small contribution are expected
- c. Coordination and Support Actions

#### Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9085-ict-19-2015.html>

Deadline: 14 April 2015, 17:00:00 (Brussels local time)



## **ICT 20 – 2015: Technologies for better human learning and teaching**

**Specific Challenge:** The development and integration of robust and fit-for-purpose digital technologies for learning are crucial to boost the market for and innovation in educational technologies. This requires an industry-led approach in close cooperation with academia to defining the frameworks and interoperability requirements for the building blocks of a digital ecosystem for learning (including informal learning) that develops and integrates tools and systems that apply e.g. adaptive learning, augmented cognition technologies, affective learning, microlearning, game-based learning and/or virtual environments/virtual worlds to real-life learning situations. This challenge also encourages public procurement of innovative solutions to address the needs of the digital learning ecosystem in making better use of educational cloud solutions, mobile technology, learning analytics and big data, and to facilitate the use, re-use and creation of learning material and new ways to educate and learn online.

**Scope:** Activities will focus on innovative technologies for learning, on the underpinning interoperability standards and on the integration of different components into smart learning environments. They should combine different technologies (e.g. mobile, augmented reality, natural interaction technologies) and support composing, re-using and distributing interactive educational content and services, with assessment and feedback functionalities. Based on technological advances enabled by research carried out so far, activities will support networking, capacity building and experimentations in methodologies and tools for data-driven, (including automated measurement of human-system interaction) non-linear approaches to adaptive learning and remediation technologies and cognitive artefacts (including toys) for effective and efficient human learning. **Gender differences in ICT-based learning attitudes should be considered.**

### *a. Research & Innovation actions*

Research experimentations on smart learning environments providing students with adaptive and personalised learning and assessment, including through multi-modal/multi-sensory interaction technologies and advanced interfaces. Activities should facilitate networking and capacity building. **Research must be inherently multidisciplinary, building on advances on neuroscience, pedagogical and learning theories, educational psychology as well as artificial intelligence.** Application scenarios include formal and informal education, including workplace learning.

### *b. Research & Innovation actions*

Establishing a technology platform to provide a framework and roadmap for stakeholders, led by industry in collaboration with academia, to develop innovative technologies for learning (adaptive solutions, learning analytics, augmented reality, mobile learning, etc.), address standards for interactive content (covering its composition, re-use and distribution) and its adaptations into learning scenarios.

### *c. Innovation actions*

Support to large scale pilots (in real settings) that develop and integrate innovative digital educational tools, solutions and services for learning and teaching, and supporting engagement of teachers, learners and parents. **They should aim at reducing the current restrictions of time and physical space in learning and teaching. They should foster greater connection between formal, non-formal and informal learning and remove obstacles for ubiquitous learning.** The pilots should link all relevant stakeholders in educational technology. As part of piloting scenarios, a specific target group to address are children and adults with mental or physical disabilities who undergo general education, lifelong learning or vocational training. Activities for the latter could include work on skills recognition/validation through smart and business intelligence applications.

### *d. Public procurement of innovative devices and software (PPI)*

Coordinate the development of joint specifications and procuring innovative devices and software for the application of technology mediated scenarios for learning and teaching in educational settings.

Expected impact:

- Reinforce European leadership in adaptive learning technologies for the personalisation of learning experiences. This must be measured by the number of excellence centres collaborating through specific joint research experimentations and technology transfers programmes.
- Enable faster ways of testing fundamental business hypothesis (including continuous development and testing with users) and increased skills capacity. Facilitate the emergence of new innovative businesses.
- Facilitate the emergence of innovative businesses and create a digital learning ecosystem in Europe.
- Speed up the rate of adoption on technologies for the modernization of education and training.
- Contribute to the objectives of the "Opening up Education" initiative.
- Enhance the development of digital learning and teaching resources, including for children and adults with mental or physical disabilities.
- Increase the number of public-private partnerships addressing technological challenges for modernizing and improving education and training.

Types of action:

- a. Research & Innovation Actions – Proposals requesting a Small contribution are expected
- b. Research & Innovation Actions – Proposals requesting a Small contribution are expected
- c. Innovation Actions – Proposals requesting a Large contribution are expected
- d. Public Procurement for Innovative solutions Cofund actions – Proposals requesting a Large contribution are expected.

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9086-ict-20-2015.html>

Deadline: 14 April 2015, 17:00:00 (Brussels local time)

**Topics with minor SSH relevance:**

***ICT 30 – 2015: Internet of Things and Platforms for Connected Smart Objects***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9091-ict-30-2015.html>

Deadline: 14 April 2015, 17:00:00 (Brussels local time)

### 3. Horizon 2020 Priority: Scientific Excellence

#### 3.1 European Research Council

The ERC funds excellent frontier research. It follows a bottom-up approach.

For the Starting, Consolidator and Advanced Grant calls the ERC Scientific Council has established the following indicative percentage budgets for each of the three main research domains:

*Physical Sciences & Engineering*    44%

*Life Sciences*    39%

*Social Sciences & Humanities*    17%

#### Call – ERC Starting Grant

**Call Identifier:** ERC-2015-StG

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/erc-2015-stg.html>

**Planned Opening Date:** 7 October 2014

**Deadline:** 3 February 2015 (17.00.00 Brussels local time)

ERC Starting Grants are designed to support excellent Principal Investigators at the career stage at which they are starting their own independent research team or programme. This action is open to researchers of any nationality who intend to conduct their research activity in any Member State or Associated Country.

The ERC's frontier research grants operate on a 'bottom-up' basis without predetermined priorities. The call 'ERC-2015-STG' consists of one call with a single deadline applying to each of the three main research domains:

- Physical Sciences & Engineering (Panels: PE1 – PE10),
- Life Sciences (Panels: LS1 – LS9),
- Social Sciences & Humanities (Panels: SH1 – SH6).

## Call – ERC Consolidator Grant

**Call Identifier:** ERC-2015-CoG

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/erc-2015-cog.html>

**Planned Opening Date:** 13 November 2014

**Deadline:** 12 March 2015 (17.00.00 Brussels local time)

ERC Consolidator Grants are designed to support excellent Principal Investigators at the career stage at which they may still be consolidating their own independent research team or programme. This action is open to researchers of any nationality who intend to conduct their research activity in any Member State or Associated Country.

The ERC's frontier research grants operate on a 'bottom-up' basis without predetermined priorities. The call 'ERC-2015-CoG' consists of one call with a single deadline applying to each of the three main research domains:

- Physical Sciences & Engineering (Panels: PE1 – PE10),
- Life Sciences (Panels: LS1 – LS9),
- Social Sciences & Humanities (Panels: SH1 – SH6).

## Call – ERC Advanced Grant

**Call Identifier:** ERC-2015-AdG

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/erc-2015-adg.html>

**Planned Opening Date:** 10 February 2015

**Deadline:** 2 June 2015 (17.00.00 Brussels local time)

Advanced Grants are designed to support excellent Principal Investigators at the career stage at which they are already established research leaders with a recognised track record of research achievements. Applicant Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.

This action is open to researchers of any nationality who intend to conduct their research activity in any Member State or Associated Country.

The ERC's frontier research grants operate on a 'bottom-up' basis without predetermined priorities.

The call 'ERC-2015-AdG' consists of one call with a single deadline applying to each of the three main research domains:

- Physical Sciences & Engineering (Panels: PE1 – PE10),
- Life Sciences (Panels: LS1 – LS9),
- Social Sciences & Humanities (Panels: SH1 – SH6).

## Call – ERC Proof of Concept Grant

**Call Identifier:** ERC-2015-PoC

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/erc-2015-poc.html>

**Planned Opening Date:** 7 November 2014

**Deadlines:** 5 February 2015 / 28 May 2015 / 1 October 2015 (17.00.00 Brussels local time)

### Objectives

Frontier research often generates unexpected or new opportunities for commercial or societal application. The ERC Proof of Concept Grants aim to maximise the value of the excellent research that the ERC funds, by funding further work (i.e. activities which were not scheduled to be funded by the original ERC frontier research grant) to verify the innovation potential of ideas arising from ERC funded projects. Proof of Concept Grants are therefore on offer only to Principal Investigators whose proposals draw substantially on their ERC funded research.

### Maximum size of grant and grant assessment

The financial contribution will be up to a maximum of EUR 150 000 for a period of 18 months. The ERC expects that normally, proof of concept projects should be completed within 12 months. However, to allow for those projects that require more preparation time, projects will be signed for 18 months. Given this initial flexibility, extensions of the duration of proof of concept projects may be granted only exceptionally.

The overall level of the funding offered will be assessed during the evaluation. The funding requested by the applicant will be judged against the needs of the proposed activity before award. The funding requested by the Principal Investigator must be fully justified by an estimation of the actual costs for the proposed activities.

The Union financial contribution will take the form of the reimbursement of up to 100% of the total eligible and approved direct costs and of flat-rate financing of indirect costs on the basis of 25% of the total eligible direct costs. The level of the awarded grant represents a maximum overall figure – the final amount to be paid must be justified on the basis of the costs actually incurred for the project.

For further information please see the ERC Work Programme 2015.

## 3.2 Marie Skłodowska-Curie Actions

### Call – Marie Skłodowska-Curie Innovative Training Networks (ITN)

**Call Identifier:** H2020-MSCA-ITN-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-itn-2015.html#tab1>

**Publication Date:** 11 December 2013

**Deadlines:** 13 January 2015 (17.00.00 Brussels local time)

Objective:

The Innovative Training Networks (ITN) aim to train a new generation of creative, entrepreneurial and innovative early-stage researchers, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.

ITN will raise excellence and structure research and doctoral training, extending the traditional academic research training setting, and equipping researchers with the right combination of research-related and transferable competences. It will provide enhanced career perspectives in both the academic and non-academic sectors through international, interdisciplinary and intersectoral mobility combined with an innovation-oriented mind-set.

Scope:

ITN supports competitively selected joint research training and/or doctoral programmes, implemented by partnerships of universities, research institutions, research infrastructures, businesses, SMEs, and other socio-economic actors from different countries across Europe and beyond.

Partnerships take the form of collaborative European Training Networks (ETN), European Industrial Doctorates (EID) or European Joint Doctorates (EJD).

Each programme should have a clearly identified supervisory board co-ordinating network-wide training and establishing active and continuous communication and exchange of best practice among the partners to maximise the benefits of the partnership.

The programme should exploit complementary competences of the participants, and enable networking activities, the organisation of workshops and conferences to facilitate sharing of knowledge, new skills acquisition and the career development of researchers.

Training responds to well identified needs in defined research areas, with appropriate references to interdisciplinary fields. It should be primarily focused on scientific and technological knowledge through research on individual, personalised projects.

In order to increase the employability of the researchers, the research training should be complemented by the meaningful exposure of each researcher to the non-academic sector and by substantial training modules addressing key transferable skills common to all fields (e.g. entrepreneurship, management and financing of research activities and programmes, management of intellectual property rights, other exploitation methods of research results, ethical aspects, communication, standardisation and societal outreach). The training follows the EU Principles for Innovative Doctoral Training.



In EID and EJD, enrolment in a doctoral programme and the creation of a joint governance structure - with joint admission (EJD only), selection, supervision, monitoring and assessment procedures - is mandatory. In the case of EJD, the successful completion of the programme must result in the award of joint, double or multiple doctoral degrees.

Attention is paid to the quality of supervision and mentoring arrangements as well as career guidance. Joint supervision of the researchers is mandatory for EJD and for EID, and encouraged in ETN. In EID, the joint supervision of the researcher must be ensured by at least one supervisor from the academic sector and one supervisor from the non-academic sector.

A Career Development Plan should be established jointly by the supervisor(s) and the early-stage researcher recruited by the selected network. In addition to research objectives, this plan comprises the researcher's training and career needs, including planning for publications and participation in conferences.

Expected impact:

- ITN will create and contribute to high-quality innovative research and doctoral training, build capacity, and have a structuring effect throughout Europe and beyond.
- Through research training provided by the institutions from different countries, sectors and disciplines, this action will trigger cooperation between organisations from the academic and non-academic sectors.
- It will enhance skills development and knowledge-sharing, enhancing researchers' employability and providing them with new career perspectives.
- ITN will shape future generations of entrepreneurial researchers capable of contributing effectively to the knowledge-based economy and society.
- In the long term, it will also raise the attractiveness of research careers and encourage young people to embark on this career path.

Type of action: Marie Skłodowska-Curie action.

## Call – Marie Skłodowska-Curie Individual Fellowships (IF)

**Call Identifier:** H2020-MSCA-IF-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-if-2015.html>

**Planned Opening Date:** 12 March 2015

**Deadlines:** 10 September 2015 (17.00.00 Brussels local time)

Objective:

The goal of Individual Fellowships is to enhance the creative and innovative potential of experienced researchers wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility.

Individual Fellowships provide opportunities to acquire and transfer new knowledge and to work on research in a European context (EU Member States and Associated Countries) or

outside Europe. The scheme particularly supports the return and reintegration of researchers from outside Europe who have previously worked here. It also develops or helps to restart the careers of individual researchers that show great potential, considering their experience.

#### Scope:

Support is foreseen for individual, trans-national fellowships awarded to the best or most promising researchers for employment in EU Member States or Associated Countries, based on an application made jointly by the researcher and host organisation in the academic or non-academic sectors.

Fellowships are either European Fellowships or Global Fellowships. European Fellowships are held in EU Member States or Associated Countries and are open to researchers either coming to Europe or moving within Europe. The researcher must comply with the rules of mobility in the country where the European Fellowship is held. Global Fellowships are based on a secondment to a third country and a mandatory 12 month return period to a European host. The researcher must comply with the rules of mobility in the country where the Global Fellowship secondment takes place, not for the country of the return phase.

Return and reintegration of researchers into a longer term research position in Europe, including in their country of origin, is supported via a separate multi-disciplinary reintegration panel of the European Fellowships. For the reintegration panel, there shall be mobility into Europe.

Support to individuals to resume research in Europe after a career break, e.g. after parental leave, is ensured via a separate multi-disciplinary career restart panel of the European Fellowships. To qualify for the career restart panel, researchers must not have been active in research for at least 12 months immediately prior to the deadline for submission.

Researchers receiving an Individual Fellowship may opt to include a secondment phase in Europe, notably in the non-academic sector, within the overall duration of their fellowship. For a fellowship of 18 months or less, the secondment phase may last up to three months. For a fellowship of more than 18 months, the secondment phase may last up to six months. The secondment phase can be a single period or be divided into shorter mobility periods. The secondment should significantly add to the impact of the fellowship.

A Career Development Plan should be established jointly by the supervisor(s) and the researcher. In addition to research objectives, this plan comprises the researcher's training and career needs, including training on transferable skills, planning for publications and participation in conferences.

#### Expected impact:

- Individual Fellowships are expected to add significantly to the development of the best and most promising researchers active in Europe, in order to enhance and maximise their contribution to the knowledge-based economy and society.
- The action will also strengthen the contact network of both the researcher and the host organisation.
- The fellowship will contribute to realising the full potential of researchers and to catalysing significant development in their careers in both the academic and non-academic sectors.
- Some researchers will be resuming a research career in Europe after a break, or reintegrating within Europe after living abroad.

Type of action: Marie Skłodowska-Curie action.

## Call – Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)

**Call Identifier:** H2020-MSCA-RISE-2015

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-rise-2015.html>

**Planned Opening Date:** 6 January 2015

**Deadlines:** 28 April 2015 (17.00.00 Brussels local time)

Objective:

The RISE scheme will promote international and inter-sector collaboration through research and innovation staff exchanges, and sharing of knowledge and ideas from research to market (and vice-versa) for the advancement of science and the development of innovation.

The scheme fosters a shared culture of research and innovation that welcomes and rewards creativity and entrepreneurship and helps to turn creative ideas into innovative products, services or processes.

Scope:

RISE involves organisations from the academic and non-academic sectors (in particular SMEs), based in Europe (EU Member States and Associated Countries) and outside Europe (third countries).

Support is provided for the development of partnerships in the form of joint research and innovation activities between the participants. This is aimed at knowledge sharing via international as well as intersectoral mobility, based on secondments of research and innovation staff (exchanges) with an in-built return mechanism.

The organisations constituting the partnership contribute directly to the implementation of the joint research and innovation activities by seconding and/or hosting eligible staff members.

The proposed research and innovation activities should exploit complementary competences of the participants, as well as other synergies, and enable networking activities, organisation of workshops and conferences to facilitate sharing of knowledge, new skills acquisition and career development for research and innovation staff members.

Activities can focus either on one dimension of mobility (intersectoral / international), or include a combination of both.

Exchanges can be for both early-stage and experienced researchers' levels and can also include administrative, managerial and technical staff supporting the research and innovation activities of the proposal.

Support for the exchanges between institutions in the EU Member States and Associated Countries covers only intersectoral secondments.

Exchanges with institutions from third countries can be intersectoral secondments as well as secondments within the same sector.

No secondments between institutions located in third countries or within the same EU Member State or Associated Country can be supported.

Expected impact:

- Research and innovation activities under RISE are expected to build or enhance new and existing networks of international and intersectoral cooperation. They will

significantly strengthen the interaction between organisations in the academic and non-academic sectors, and between Europe and third countries.

- In terms of knowledge sharing and broad skills development, they will better align different cultures and expectations, with a view to a more effective contribution of research and innovation to Europe's knowledge economy and society.

Type of action: Marie Skłodowska-Curie action.

### Call – Marie Skłodowska-Curie Co-funding of regional, national and international programmes (COFUND)

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-cofund-2015.html>

**Call Identifier:** H2020-MSCA-COFUND-2015

**Planned Opening Date:** 14 April 2014

**Deadline:** 1 October 2015 (17.00.00 Brussels local time)

Objective:

The COFUND scheme aims at stimulating regional, national or international programmes to foster excellence in researchers' training, mobility and career development, spreading the best practices of Marie Skłodowska-Curie actions.

This will be achieved by co-funding new or existing regional, national, and international programmes to open up to, and provide for, international, intersectoral and interdisciplinary research training, as well as transnational and cross-sectoral mobility of researchers at all stages of their career.

Scope:

Each proposal funded under the COFUND scheme shall have a sole participant that will be responsible for the availability of the necessary matching funds to execute the proposal.

Participants submit multi-annual proposals for new or existing doctoral programmes or fellowship programmes that may be run at regional, national or international level. The evaluation is organised in two different panels: A) Doctoral programmes and B) Fellowship programmes. Support cannot be awarded to researchers who are already permanently employed at the host organisation.

Doctoral programmes address the development and broadening of the research competencies of early-stage researchers. The training follows the EU Principles on Innovative Doctoral Training. Collaboration with a wider set of partners, including from the non-academic sector, which may provide hosting or secondment opportunities or training in research or transferable skills, as well as innovative elements of the proposed programme, will be positively taken into account during the evaluations. Each researcher must be enrolled in a doctoral programme. Attention is paid to the quality of supervision and mentoring arrangements as well as career guidance.

Fellowship programmes fund individual research training and career development fellowships for experienced researchers. The programmes supported should have regular selection rounds following fixed deadlines or regular cut-off dates, allowing fair competition

between the researchers applying. The selections should be based on open, widely advertised competition, with transparent international peer review and the selection of candidates on merit. Mobility types supported by fellowship programmes may be similar to the ones supported under Marie Skłodowska-Curie Individual Fellowships. On top of transnational mobility, applicants are encouraged to include elements of cross-sectoral mobility into their programmes. Fellowship programmes should be based on individual-driven mobility, i.e., researchers should be able to freely choose a research topic and the appropriate host organisation fitting their individual needs.

Limitations regarding the researchers' origin and destination should be avoided. Given that the aim of the co-funded fellowship programmes is the support of individual fellows, research teams will not be funded.

Proposed fellowship programmes are encouraged to cover all research disciplines ("bottom-up"), but can also focus on specific disciplines. In this case the range of covered disciplines should allow reasonable flexibility for the researchers. Programmes that prioritise specific research disciplines based on national or regional Research and Innovation Strategies for Smart Specialisation (RIS3 strategies) will also be supported.

Researchers supported under this scheme should comply with the mobility rules of the Marie Skłodowska-Curie actions. Existing programmes can deviate from this rule if duly justified in the proposal by the applicant.

#### Expected impact:

The COFUND scheme will on a voluntary basis exploit synergies between European Union actions and those at regional and national level, as well as with other actions at international level. The scheme will have a leverage effect on regional, national or international funding programmes for early-stage researchers and experienced researchers. This impact is expected to extend to:

1. enabling the relevant regional, national and international actors to contribute significantly to the development within their own setting of high quality human resources, by introducing and/or further developing the trans-national dimension of their offers;
2. increasing the numerical and/or qualitative impact, in terms of supported researchers or working/employment conditions;
3. combating fragmentation in terms of objectives, evaluation methods and working conditions of regional, national or international offers in this area.

Type of action: Marie Skłodowska-Curie COFUND (Programme Co-fund Action).

### 3.3 Future and Emerging Technologies (FET)

FET funds interdisciplinary collaborations that seek genuine cross-fertilisation and deep synergies between the broadest range of advanced sciences (physical sciences, information sciences, life sciences, environmental sciences, social sciences, humanities,...) and cutting-edge engineering disciplines (chemical, physical, biological, computational, geospatial, ...) in order to turn new knowledge and high-risk ideas into a viable basis for radically new technologies.

**Call – “FET-Open – novel ideas for radically new technologies”****Call Identifier:** H2020-FETOPEN-2014/2015**Publication Date:** 11 December 2013**Deadline:** please see information under the individual topics.

The Call “FET-Open – novel ideas for radically new technologies (H2020-FETOPEN-2014/2015)” is divided into several “sub-calls”. The URL link to information on the participant portal is listed under the individual topics.

**Topics with minor SSH relevance:*****FETOPEN 1 – 2014/2015: FET-Open research projects***Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1153-fetopen-1-2014.html>

Deadline: 29 September 2015 (17:00:00 Brussels local time), Cut-off date(s): 30 September 2014 (17:00:00 Brussels local time), 31 March 2015 (17:00:00 Brussels local time)

***FETOPEN-CSA-FETEXCHANGE-2015: FET Exchange Coordination and Support Activities 2015***Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/11050-fetopen-csa-fetexchange-2015.html>

Deadline: 29 September 2015 (17.00.00 Brussels local time), Cut-off date(s): 31 March 2015 (17.00.00 Brussels local time)

***FETOPEN-CSA-FETTAKEUP-2015: FET Take-Up Coordination and Support Activities 2015***Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/11051-fetopen-csa-fettakeup-2015.html>

Deadline: 29 September 2015 (17.00.00 Brussels local time), Cut-off date(s): 31 March 2015 (17.00.00 Brussels local time)

### 3.4 European research infrastructures (including e-Infrastructures)

#### Call – Developing new world-class research infrastructures

**Call Identifier: H2020-INFRADEV-2014/2015**

**Relevant Sub-calls for 2015 topics:** H2020-INFRADEV-1-2015-1, H2020-INFRADEV-1-2015-2

**Opening Date H2020-INFRADEV-1-2015-1:** 24 September 2014

**Call Information H2020-INFRADEV-1-2015-1:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-infradev-1-2015-1.html>

**Deadline for H2020-INFRADEV-1-2015-1:** 14 January 2015 (17.00.00 Brussels local time)

**Opening Date H2020-INFRADEV-1-2015-2:** 10 December 2014

**Call Information H2020-INFRADEV-1-2015-2:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9095-infradev-2-2015.html>

**Deadline for H2020-INFRADEV-1-2015-2:** 21 April 2015 (17.00.00 Brussels local time)

#### ***INFRADEV-2-2015: Preparatory Phase of ESFRI projects***

**Specific challenge:** The ESFRI roadmap, updated periodically, identifies the needs of the European scientific community in terms of research infrastructures. However, inclusion in the ESFRI roadmap does not guarantee that these needed infrastructures will be built. Before proceeding with the construction and/or implementation of the identified infrastructures, many preliminary decisions need to be taken with respect to issues such as the identification of funders, the financial plan for sustainability, the governance by involved stakeholders, the site and legal form of the managing organisation, the architecture and the service policies. The aim of this activity is to provide catalytic and leveraging support for the preparatory phase leading to the construction of new research infrastructures or major upgrades of existing ones.

**Scope:** The preparatory phase aims at bringing the project for the new or upgraded research infrastructure identified in the ESFRI roadmap or in the European strategy for particle physics (CERN Council) to the level of legal, financial, and, where applicable, technical maturity required for implementing it. Proposal consortia should involve all the stakeholders necessary to move the project forward, to take the decisions, and to make the financial commitments necessary before construction can start (e.g. national/regional ministries/governments, research councils, funding agencies). Appropriate contacts with ministries and decision makers should be continuously reinforced, thus further strengthening the consortia. Operators of research facilities, research centres, universities, and industry may also be involved whenever appropriate. During the preparatory phase the Commission may act as a 'facilitator', in particular with respect to the financial engineering needed for the



construction phase. The preparation of the legal agreements (including site, governance, financing of the new research infrastructures) is one of the main activities and deliverables and must be finalised before the end of the project (e.g., through the signature of a Memorandum of Understanding).

If the preparatory phase includes technical work it should be implemented as a Research and innovation action, otherwise as a Coordination and support action. The detailed list of activities that can be included in a preparatory phase proposal is given in part A of the section "Specific features for Research Infrastructures".

Under Horizon 2020 support can be provided to two types of preparatory phase proposals:

Preparatory phase type I: Proposals will address research infrastructures identified in the periodic updates of the ESFRI roadmap or in the European strategy for particle physics, that are willing to set up a pan-European governance and legal structure (e.g. in the form of an ERIC).

Preparatory phase type II: Proposals will target new research infrastructures projects, which have already been supported by EU through a first preparatory phase grant and have not yet entered in implementation phase. These infrastructure projects must demonstrate in the proposal their critical need for an additional support in order to complete their preparatory phase. In this case a reduced grant of a duration not exceeding two years for the continuation of the preparatory phase could be given to support a limited set of activities in particular for setting up an adequate governance and management structure, securing financial commitment and broadening the membership. The Commission considers that proposals requesting a contribution from the EU of up to EUR 1.5 million would allow this challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Under this work programme only preparatory phase type II proposals can be submitted and only by ESFRI projects which entered in the ESFRI Roadmap in 2008 and which are not addressed by topic INFRADEV-3-2015.

#### Expected impact:

Proposals will raise the technical, legal and financial maturity of projects for new research infrastructures to the level required to enable the construction work to start.

- All the technical, financial, and legal documents which are necessary for the implementation phase of a new or upgraded research infrastructure are created. Participating funding bodies are able to take their final funding decisions and to conclude the legal agreements necessary for the implementation.
- In particular, any technical work necessary to draft the final technical design is completed, providing a sound technical base for establishing a cost baseline and detailed financial planning.
- The financial needs of the project are mapped out to the extent necessary for funding agencies to establish their own medium- and long-term financial planning; and
- The preparation of the legal agreements for establishing the implementing / operating consortium is completed, including the project's governance and appropriately detailed internal rules.
- The technical work carried out under this topic will contribute to strengthening the technological development capacity and effectiveness as well as the scientific performance, efficiency and attractiveness of the European Research Area.

Type of action: Coordination and support actions or Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/62-infradev-2-2015.html>

Deadline: 14 January 2015 (17.00.00 Brussels local time)

### ***INFRADEV-3-2015: Individual implementation and operation of ESFRI projects***

Specific challenge: The research infrastructures identified in the ESFRI roadmap or in the European strategy for particle physics have benefitted from EU support for their preparatory phase. Some of them have already moved on to the implementation phase and/or have started their operation. The initial phase is, however, the most delicate and difficult one for new pan-European infrastructures in the process to become fully operational as technologies, services and procedures need to be finalised and best tuned, financial sustainability must be proved and users' trust and awareness must be gained.

Scope: Under the 2014-2015 work programme this topic will target the implementation and initial operation of new research infrastructures which are identified by ESFRI, in the context of the prioritisation exercise<sup>1</sup>, as essential to extend the frontiers of knowledge in the fields concerned and mature enough to be under implementation by 2015-2016. Following the specific conclusions by the Competitiveness Council on the priority list identified by ESFRI and the Council's call upon Member States to concentrate their available national resources on the respective prioritised projects they are financially participating in, the EU will focus the support available for this topic on the following prioritised research infrastructures: ELIXIR, EPOS and the European Spallation Source. The Commission considers that proposals requesting a contribution from the EU in the range of EUR 15-20 million, assessed according to their respective financial volume, would allow this challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

In addition, under this topic funding can also be provided to the other important ESFRI projects, which have been identified by ESFRI, through a comprehensive assessment, as requiring a specific support to complete or launch their construction, thus contributing to the fulfilment of the Innovation Union commitments, or, while already in the implementation phase, as requiring additional support for addressing their sustainability and their European coverage. The Commission considers that proposals requesting a contribution from the EU in the range of EUR 2-5 million would allow this challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

The new research infrastructures addressed by this topic are the ones that are setting up, or have already set up, their governance and legal structure, notably on the basis of the European Research Infrastructure Consortium (ERIC) or any suitable structure at European or international level. Support will be provided for implementation and initial operation activities, such as enlargement of the membership, enhancement of the technical architecture, development of innovative components, central coordination, access provision, data management (including possible open access to data), training, outreach, international cooperation, research and innovation activities. Specific attention will be given to the interaction with end-users (notably industry and SMEs). Activities may also foster the development of Regional Partner Facilities. The detailed list of activities that can be supported under this topic is given in part B of the section "Specific features for Research Infrastructures".

#### Expected impact:

This activity will:

- contribute to the realisation of the Innovation Union flagship initiative's Commitment n. 5: "to complete or launch the construction of 60% of the ESFRI projects by 2015";
- strengthen the ERA position and role in the global research environment;
- reinforce the partnership between the Commission, Member States, Associated Countries and relevant stakeholders in establishing pan-European research infrastructures;
- enhance the role of the Union in international organisations and multilateral forums;
- support progress towards the development of global research infrastructures;
- enable researchers to address societal challenges with a global dimension such as climate change;
- foster capacity building and Research Infrastructure human capital development in targeted/relevant regions;
- raise the technological level of the European industry and SME's, thus improving their competitive position, through their involvement in research infrastructures development and service provision.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/63-infradev-3-2015.html>

Deadline: 14 January 2015 (17.00.00 Brussels local time)

## Call – e-infrastructures

**Call Identifier:** H2020-EINFRA-2014/2015

**Relevant Sub-Call for 2015 Topic listed below:** H2020-EINFRA-2015-1

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-einfra-2015-1.html>

**Opening Date:** 24 September 2014

**Deadline:** 14 January 2015 (17.00.00 Brussels local time)

### ***EINFRA-9-2015 – e-Infrastructures for virtual research environments (VRE)***

Specific challenge: There is yet considerable potential and room for development in the use of virtual research environments. The objective is to address this challenge by supporting capacity building in interdisciplinary research communities to empower researchers through development and deployment of service-driven digital research environments, services and tools tailored to their specific needs. These virtual research environments (VRE) should integrate resources across all layers of the e-infrastructure (networking, computing, data,

software, user interfaces), should foster cross-disciplinary data interoperability and should provide functions allowing data citation and promoting data sharing and trust.

Scope: Each VRE should abstract from the underlying e-infrastructures using standardised building blocks and workflows, well documented interfaces, in particular regarding APIs, and interoperable components. Over time VREs will be composed of generic services delivered by e-infrastructures and domain specific services co-developed and co-operated by researchers, technology and e-infrastructure providers, and possibly commercial vendors.

The VRE proposals should clearly identify and build on requirements from real use cases, e.g. for integration of heterogeneous data from multiple sources and value-added services for computing, modelling, simulation, and data exploration, mining and visualisation, taking due account of privacy aspects. They should re-use tools and services from existing infrastructures and projects at national and/or European level as appropriate.

Where data are concerned, projects will define the semantics, ontologies, the 'what' metadata, as well as the best computing models and levels of abstraction (e.g. by means of open web services) to process the rich semantics at machine level (the so called 'how' metadata), as to ensure interoperability. They may also support proof of concept, prototyping and deployment of advanced data services and environments, and access to top-of-the-range connectivity and computing. VREs may target any area of science and technology, especially interdisciplinary ones, including ICT, mathematics, web science and social sciences and humanities. Focusing on the ICT infrastructures needed for addressing the Societal Challenges is especially encouraged. Proposals should indicate the number of researchers they target as potential users. This topic is complementary with topic INFRADEV-4-2014/2015, as VREs integrate data, network and computing resources for interdisciplinary research communities, whereas INFRADEV-4-2014/2015 addresses interoperability of services and common solutions for cluster of ESFRI and other research infrastructure initiatives in thematic areas.

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 and 8 million would allow this topic to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact: VREs are expected to result in more effective collaboration between researchers and higher efficiency and creativity in research as well as in higher productivity of researchers thanks to reliable and easy access to discovery, access and re-use of data. They will accelerate innovation in research via an integrated access to potentially unlimited digital research resources, tools and services across disciplines and user communities and enable researchers to process structured and qualitative data in virtual and/or ubiquitous workspaces. They will contribute to increased take-up of collaborative research and data sharing by new disciplines, research communities and institutions.

Type of action: Research and innovation actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2144-einfra-9-2015.html>

Deadline: 14 January 2015 (17.00.00 Brussels local time)

## Call – Support to innovation, human resources, policy and international cooperation

**Call Identifier:** H2020-INFRASUPP-2014/2015

**Relevant Sub-Call for 2015 Topics listed below:** H2020-INFRASUPP-2015-1

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-infrasupp-2015-1.html>

**Opening Date:** 24 September 2014

**Deadline:** 14 January 2015 (17.00.00 Brussels local time)

### ***INFRASUPP-4-2015 – New professions and skills for e-infrastructures***

**Specific challenge:** The changing methods of (digital) science and research require that researchers, professors and students receive adequate support in computing and networking, as well as in handling, analysing and storing large amounts of digital content. Formal education for emerging professions of e-infrastructure operators, research technologists (including those possessing computational skills, e.g. in parallel programming), data scientists or "data librarians" hardly exists today. Professional recognition of these communities and the development of appropriate curricula, training and skills are crucial to ensure effective services to institution staff and students. Training opportunities should be available at all levels and for all communities potentially engaged in research and innovation related activities.

**Scope:** Proposals should address one or more of the following areas:

- (1) Defining or updating university curricula for the e-infrastructure competences mentioned above, and promoting their adoption.
- (2) Developing and executing training programmes (including for lifelong learning) for the above mentioned professionals working as part of a team of researchers or supporting research teams.
- (3) Support the establishment of these professions as distinct professions from that of a researcher. Create a reference model which defines their competencies, supported by case studies and best practices relating to e-infrastructures skills, human resources management, support tools and related institutional practices. Develop alternative means for recognising non-research contributions by research technologists and data scientists.
- (4) Support networking and information sharing among already practicing e-infrastructure experts, research technologists, computation experts, data scientists and data librarians working in research institutes and in higher education.
- (5) Awareness raising activities; establish and promote e-infrastructures community champions to advocate on new jobs and skills needs at schools, universities and scientific communities.

**Expected impact:** The number of high level education institutions offering degrees for e-infrastructure experts, research technologists, data scientists and data librarians will increase. Graduates and practitioners in these fields will have access to degrees, programmes and information sharing tools to improve their skills. The majority of European researchers will thus have access to training on e-infrastructures to develop related skills. The number of individuals able to design, develop and maintain e-science tools and services

as well as to support researchers with computational and data expertise will increase significantly.

Type of action: Coordination and support actions

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/72-infrasupp-4-2015.html>

Deadline: 14 January 2015 (17.00.00 Brussels local time)

## 4. Science with and for Society

### Call for Making Science Education and Careers Attractive For Young People

**Call Identifier:** H2020-SEAC-2014-2015,

**Publication Date:** 11 December 2013

**Sub-Call for 2015 Topics:** H2020-SEAC-2015-1

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-seac-2015-1.html>

**Deadline for 2015 Topics:** 16 September 2015 (17.00.00 Brussels local time)

**Planned Opening Date for 2015 Topics:** 22 April 2015

#### ***SEAC.1.2014.2015 - Innovative ways to make science education and scientific careers attractive to young people***

(SSH dedicated topic)

**Specific challenge:** The Union needs all its talents to boost creativity and competitiveness. It needs an innovative science education which shall enable today's and tomorrow's citizens to play a more active role in the Research and Innovation process, to make informed choices and to engage in a democratic, knowledge-based society. It needs young boys and girls to pursue careers in science, technology, engineering and mathematics (STEM), while at the same time adhering to the values embedded in Responsible Research and Innovation. In such a manner, the Union will reach the objective of a R&D intensity of 3% of GDP which is essential. Yet it has been increasingly difficult to attract adequate numbers of young people, to these domains and to avoid a brain-drain of talent from Europe. Therefore, a shift to innovative and effective methods is necessary, so as to raise the attractiveness of science education and scientific careers and boost the interest of young people in STEM.

**Scope:** The action aims to support a range of activities, which will raise young boys' and girls' awareness of the different aspects encompassing science and technology in their societal content and to address the challenges faced by young people when pursuing careers in STEM. It aims at bringing both girls and boys into the scientific world via formal and informal teaching and learning and to orient them towards undertaking scientific careers. In order to be more attractive, research careers should also be more closely linked to labour market needs. In this context, the potential orientation towards more entrepreneurial and multidisciplinary research careers should be recognised. The proposals shall focus on innovative, forward-looking science education methods and/or on incentives and measures to make scientific and technological careers attractive to young students, including actions addressing the challenges in offering long term career perspectives. They may inter alia make young people work with open-access educational resources; become familiar with the use of science media; make the link between creativity and science; appreciate the



relevance of gender balance and dimension in research; understand the practical value of research ethics and integrity; actions.

The proposals shall also foster sustainable and cross-cutting interaction between the different levels of the education system, research institutions and other establishments, industry, Civil Society Organisations (CSOs). Such proposals shall improve the attractiveness of science education and scientific careers to young people; address challenges in offering long term career perspectives, as well as raise awareness of the importance of trans-disciplinary research and Responsible Research and Innovation in the education system.

The establishment of a link with SCIENTIX – The Community for Science Education in Europe – is strongly encouraged, since it consists of a multidimensional educational tool and would assist in spreading out STEM practices and better understanding of the relation between science and technology in practical terms.

When the proposed activities include scientific and technical work it should be implemented as a Research and Innovation Action, otherwise as a Coordination and Support Action

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 1.8 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: In the short term, the action will coordinate and leverage Member States activities with respect to innovative approaches in the field of science education and scientific careers. In the medium term, the action will position EU research teams on the map as leaders in innovative science education methods and meeting Europe's targets regarding R&D intensity and competitiveness. It will increase the number of researchers and innovators, including women, in the public sector and in industry who will be able to better address societal challenge. As a result, in the long term, the action will contribute towards achieving the Europe 2020 education target by improving STEM skills among young people – less than 15% of pupils under-performing by 2020 – and increasing the range of innovative products that reflect societal needs.

Type of action: Research and Innovation Actions; Coordination and Support Actions.

Deadline 2015: 16 September 2015, 17:00:00 (Brussels local time)

Topic information (for 2015):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2426-seac-1-2015.html>

### **Topics with minor SSH relevance:**

#### ***SEAC.4.2015 - EURAXESS outreach activities***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2427-seac-4-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)

## Call for promoting Gender Equality in Research and Innovation

**Call Identifier:** H2020-GERI-2014-2015

**Sub-Call for 2015 Topics:** H2020-GERI-2015-1

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-geri-2015-1.html>

**Deadline for 2015 Topics:** 16 September 2015 (17.00.00 Brussels local time)

**Planned Opening Date for 2015 Topics:** 22 April 2015

### ***GERI.3.2015 - Evaluation of initiatives to promote gender equality in research policy and research organisations***

**Specific challenge:** In the field of research, initiatives have been developed in European countries and beyond aiming at promoting gender equality. They include direct support to female researchers' careers, specific awards, gender balance in decision-making, gender-budgeting the integration of a gender dimension in research and programmes. Some initiatives have a more comprehensive scope such as charters, performance agreements and gender equality plans. Others are tied with the funding of research organisations and Higher Education Institutions. They shall have been initiated by public authorities/entities or private organisations and have a national or regional scope. Few of these initiatives have been evaluated so far and there is no common framework methodology to conduct such evaluations in Europe.

**Scope:** The proposals shall **develop concepts and methodologies for the evaluation of initiatives mentioned above, providing an adequate analysis of how gender issues are considered in science management and policy-making and how they contribute to achieve three main objectives: equal participation and progression in research careers, gender balance in decision-making and the integration of a gender dimension in research content and programmes.** The proposed evaluation framework shall cover a selected range of initiatives with a national or regional scope:

- on research quality and productivity as well as innovation;
- on research organisations and Higher Education Institutions in terms of structure; efficiency, competitiveness, quality of the workplace, recruitment capacity;
- at research system level in terms of intensity and productivity.
- The proposed framework covers a selected range of initiatives from several EU countries using a comparative approach. It will contribute to develop a common understanding of the reach, value and limits of such evaluations. The proposals should also include an appropriate involvement of policy-makers to help integrate the findings of the evaluations in research and innovation policies.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 2 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: The research will provide concepts and methodologies fitted to conduct evaluation of gender equality initiatives in Europe with national or regional scope. It shall also provide a better understanding of the impacts of current gender equality initiatives, from the science-management and policy-making perspectives. This will help identify best practices to be promoted. In the medium term, it will help adapt gender equality initiatives and increase their efficacy, leading to an improved research intensity and productivity and furthering the progress towards the achievement of the European Research Area.

Type of action: Research and Innovation Actions.

Topic information (for 2015):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2707-geri-3-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)

#### ***GERI.4.2014-2015 - Support to research organisations to implement gender equality plans***

Specific challenge: Gender equality is a key priority of the European Research Area Communication. "A Reinforced European Research Area: Partnership for Excellence and Growth", which invites Member States, research performing organisations (RPOs), including Higher Education Institutions, as well as research funding organisations (RFOs) to take action to promote gender equality in R&I with the following objectives:

- Removing barriers to the recruitment, retention and career progression of female researchers;
- Addressing gender imbalances in decision making processes;
- Strengthening the gender dimension in research programmes.

Scope: The action provides support to RPOs and RFOs in order to support systemic institutional changes, in particular through the implementation of Gender Equality Plans (GEPs). GEPs shall:

- **Conduct impact assessment / audit of procedures and practices, including relevant data on HR management, teaching and research activities, in order to identify gender bias at organisation level;**
- **Implement innovative strategies to address gender bias; this should include family-friendly policies (e.g. work schedule's flexibility; parental leave; mobility, dual-career couples); gender planning and budgeting; training on gender equality in Human Resources (HR) management; develop the gender dimension in research content and programmes; integrating gender studies in Higher Education Institution curricula;**
- **Set targets and monitor progress via indicators at organisation level.**

The RPOs, including Higher Education Institutions, and RFOs involved in the consortium shall be at a starting stage in the setting-up of gender equality plans and shall ensure the support from their highest management level. Participation of professional associations in the consortium is recommended. The proposals shall include a first assessment of gender issues in each partner organisation. They shall also situate the planned GEPs in relation with existing national provisions relating to gender equality in research, and explain how they will contribute to the achievement of the European Research Area (ERA) objectives on gender equality. The proposals shall include a methodology for impartially monitoring and assessing the progress made throughout the duration of the project. This activity could be dedicated to

a specific partner organisation or subcontracted. This action will be further promoted through the EURAXESS initiative SEAC.3.2014 Trans-national operation of the EURAXESS Service network.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 million and 2.3 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: The activities will increase the number of RPOs and RFOs implementing gender equality plans pursuing the three objectives mentioned in the challenge. In the medium / to long term, activities will contribute to the achievement of ERA in particular by increasing the number of female researchers, improving their careers and mobility, thus contributing to research intensity. The integration of the gender dimension in research programmes and content will improve the social value of innovations and the fitness for purpose of innovative products.

Type of action: Coordination and Support Actions.

Topic information (for 2015):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2415-geri-4-2015.html>

Deadline 2015: 16 September 2015 (17.00.00 Brussels local time)

## Call for integrating Society in Science and Innovation

**Call Identifier:** H2020-ISSI-2014-2015

**Publication Date:** 11 December 2013

**Sub-Call for 2015 Topics:** H2020-ISSI-2015-1

**Call Information:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-issi-2015-1.html>

**Deadline for 2015 Topics:** 16 September 2015 (17.00.00 Brussels local time)

**Planned Opening Date for 2015 Topics:** 22 April 2015

### ***ISSI.5.2014.2015 - Supporting structural change in research organisations to promote Responsible Research and Innovation***

Specific challenge: Many barriers exist to practical implementation of RRI in research organizations. Therefore it is crucial to encourage the modernisation of institutional practices and culture in research institutions, Higher Education Institutions and funding agencies, to promote Responsible Research and Innovation. It also aims at supporting common actions

by research institutions to identify and implement the best systemic organisational approaches to increase Responsible Research and Innovation uptake in research organizations.

Scope: This topic aims at developing a Responsible Research and Innovation Plan covering five RRI keys (**societal engagement, gender equality and gender in research and innovation content, open access, science education and ethics**) in each participating institution. The proposals shall include an **analysis of the main problems and challenges**, as well as a set of specific implementing actions aiming at the necessary structural change on the basis of specific situation and challenges. Action Plans shall be accompanied by an implementation roadmap. The RRI plans shall:

- **Conduct impact assessment** / audit of procedures and practices in order to identify RRI barriers at organisation level;
- Implement **innovative strategies** to address RRI barriers;
- Develop the RRI dimension in research content and programmes;
- Set targets and monitor progress via indicators at organisation level.

The proposals shall include a methodology for impartially monitoring and assessing the progress made throughout the duration of the project. This activity could be dedicated to a specific partner organisation or subcontracted.

The proposals should include an international dimension in particular with the following countries: Brazil, Republic of South Africa, India, Canada, Australia, Russia, United States of America, Japan and China.

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 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: Activities shall produce tangible and measurable results in terms of organisational process and structures. They will improve the uptake of Responsible Research and Innovation in research organisations, as the Plans will continue to be implemented in the medium / long term. In the medium term, institutional change shall be scalable to research institutions across EU 28 and Associated countries, thus contributing towards European Research Area (ERA) objectives. In the long term, the action will increase research institutions' ability to generate innovation that reflects societal needs.

Type of action: Coordination and Support Actions.

Topic information (for 2015):

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2422-issi-5-2015.html>

Deadline 2015: 16 September 2015 (17.00.00 Brussels local time)

### **Topics with minor SSH relevance:**

#### ***ISSI.3.2015 – Knowledge Sharing Platform***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2420-issi-3-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)

#### ***ISSI.4.2015 - On-line mechanisms for knowledge-based policy advice***

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2421-issi-4-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)

### **Call for developing governance for the advancement of Responsible Research and Innovation**

**Call Identifier:** H2020-GARRI-2014-2015

**Relevant Sub-Call for 2015 Topics:** H2020-GARRI-2015-1

**Publication Date:** 11 December 2013

**Call Information for 2015 Topics:**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-garri-2015-1.html>

**Deadline for 2015 Topics:** 16 September 2015 (17.00.00 Brussels local time)

**Planned Opening Date for 2015 Topics:** 22 April 2015

#### ***GARRI.2.2015 - Responsible Research and Innovation in industrial context***

Specific Challenge: Evidence is needed on how the RRI approach, in particular the opening up of the innovation process to social actors, can improve the development process and the quality of the final outcomes of research and innovation in the industrial context. Existing initiatives such as Corporate Social Responsibility (CSR) have set first steps but improved business governance is needed that deeply embeds creativity, scalability, responsiveness, "glocality", circularity and societal engagement.

Scope: This action will support projects that demonstrate **how to implement RRI in process development (via stakeholder involvement, taking account of gender differences, Corporate Social Responsibility, etc.) and in quality of the final outcomes (complying with standards relating to sustainability, precautionary principle, gender and ethics, among others)**. The proposals shall foster collaboration between actors from industry, research and civil society to jointly define and implement a concrete roadmap for the responsible development of particular technologies, products or services within up to three specific research/innovation fields, enabling a detailed comparative assessment. It can for example develop an RRI-inspired 'CSR 2.0' roadmap and implementation plan that is demonstrated, tested, and assessed by the partners involved in the action. Overall, the proposals shall pilot and demonstrate how industry and societal actors can work productively



together according to the Responsible Research and Innovation approach, delivering practical evidence of the benefits for industry at large to follow up on a similar path.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 and 1.5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

This action allows for the provision of financial support to third parties in line with the conditions set out in Part K of the General Annexes.

Expected impact: Better uptake of the RRI approach and of the gender dimension in research by industrial actors. In the medium term, the action aims to increase public-private partnership in the innovation process, to increase the social value and acceptability of innovation, and facilitate the emergence of new business models that embed sustainability and social responsibility throughout the entire business process. In the long term, it aims to contribute towards the innovation and competitiveness objectives of the Innovation Union and to enhanced 'mainstreaming' and standardisation of RRI and CSR processes at the EU and Global level.

Type of action: Coordination and Support Actions.

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2409-garri-2-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)

#### ***GARRI.4.2015 - Innovative approach to release and disseminate research results and measure their impact***

Specific Challenge: The European Commission promotes a culture of openly sharing information among researchers, innovative industries and citizens. The technology continues to improve, thus making some innovative approaches possible. It is important to ensure that high levels of quality are maintained for research results. The release and dissemination of research results is a crucial element, but so are the measurement of their quality and impact with the right indicators. There is a need to examine the situation from A to Z and adapt to the new solutions that better suit the needs of researchers, innovators, the public and funding bodies, and that are relevant to new technologies and expanding amounts of information.

Scope: **From working on the public release of research results to evaluating their impact, the proposals shall seek in particular to examine how peer-review develops outside of traditional methods and support it, and how indicators and bibliometrics are adequate for different types of needs and promote them. With open access expanding beyond scientific articles to encompass data, monographs and books, it needs to be seen whether current methods of review and measurement of impact remain practical and relevant, or whether more innovative practices are needed, and how.**

The Commission considers that proposals requesting a contribution from the EU of the order of 2 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: The action will contribute to the development of more open and comprehensive as well as gender sensitive ways of conducting research and fostering innovation. The use of new technology has the potential to ensure originality as well as high-quality contributions to science. This will be of benefit to the optimal circulation of knowledge within the European Research Area. It will contribute not only to better science but also to a



more open science system, while ensuring that the impact of scientific information on all actors of the society can be measured in a reliable way.

Type of action: Coordination and Support Action. Topic information:

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2410-garri-4-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)

### ***GARRI.9.2015 – Estimating the costs of research misconduct and the socio-economic benefit of research integrity***

(SSH dedicated topic)

Specific challenge: The Innovation Union Communication notes that “Europe must also develop its own distinctive approach to innovation which builds on its strengths and capitalizes on its values” These values frame the responsible and ethical conduct of research, a critical factor in achieving excellence and socially relevant impact. According to the Singapore Statement on Research Integrity, “the value and benefits of research are vitally dependent on the integrity of research”. In the same spirit, the “European Code of Conduct for Research Integrity” states in its preamble that “science as the process of knowledge augmentation is embedded in a wider socio-ethical context, and scientists must be aware of their specific responsibility towards society and the welfare of mankind.

Research integrity is multi-dimensional and essentially entails that academic and industry researchers design their research taking into account its social impact, conduct the research in a responsible manner starting with the research design and the gathering of data. Integrity therefore implies the use of appropriate techniques and methodologies respecting the highest ethical standards. Once the results are available they should be reported in an accurate way and be widely and easily accessible. In all circumstances researchers should avoid any form of conflict of interest when performing, reviewing research or communicating research findings (notably in support to policy making). As regards scholarly publication, researchers should include all the necessary references to their work and to the work of others. Overall, research integrity thus covers the complete cycle of the process from the original idea to the output (paper, product, processes, scientific advice etc.).

Conversely, research misconduct can have two main consequences: (1) affect in the short and long run society trust in science as well as the trust in private and public research institutions, (2) harm people (including patients and other vulnerable populations) and the environment. For policy and funding institutions it has additional effects: if misconduct goes on undetected, it reduces return on investment of public and private funds, distorts the research funding market and can be seen as rewarding fraudulent behavior and tarnishing trust in the research management processes including peer review.

Scope: Accurate estimates of the social and economic impact of research integrity are difficult to ascertain. They range from tabulations of actual personnel and legal costs involved in adjudication procedures for selected misconduct cases, to attempts of pricing reputation loss through stock price decline. In addition to the above, and on the basis of selected cases, the proposed study will examine the possibility of devising an appropriate methodology in order to be able to calculate the cost of the various impacts of research misconduct, including:

- The impact on trust and reputation of research and innovation institutions (including loss of expertise and qualified personnel)
- The impact on researchers' career (salary, promotion, loss of employment etc)

- The impact on the well being of citizens and on the environment. This should in particular cover the impact of inappropriate policies or products resulting from research misconduct. It notably covers (1) policy decisions based on falsified research results or biased scientific advice and (2) products (pesticides, medication etc.) put on the market further to a non rigorous scientific validation process.

Beyond the estimation of the economic impact of misconduct, the study should also, estimate the economic benefit that could be derived from a more responsible conduct of research (increase reproducibility of research findings, improving availability of research results, interactions with concerned actors when designing and performing research etc.) in the EU and worldwide. In addition to general figures, a few concrete and illustrative cases should be analysed to support the impact narrative.

The Commission considers that proposals requesting a contribution from the EU of the order of 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: A better understanding of the economic and social impact of research misconduct and responsible conduct of research will support the development of a coherent and efficient research integrity policy in the European Research Area.

Type of action: Coordination and Support Actions.

Topic information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9074-garri-9-2015.html>

Deadline: 16 September 2015 (17.00.00 Brussels local time)