

Opportunities for African Participation in H2020

Work Programme 2016-2017



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Building Bi-regional Partnerships for Global Challenges



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Organisation Name(s): UniPID, University of Jyväskylä

8.11.2016



Societal Challenge 1: Health, demographic change and wellbeing

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-health_en.pdf

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4.11.2013

Societal Challenge 1 – General Information

Health, Demographic Change and Wellbeing

- Aim to create opportunities for real breakthrough research and radical innovation in health and wellbeing.
- Focus on Personalising Health and Care (PHC)
 - Topics divided into 7 areas, reflecting the need for a translational and integrated approach to the challenge.



Societal Challenge 1: Objectives

Personalizing Health and Care

- To improve understanding of the causes and mechanisms underlying health, healthy ageing and diseases
- Improve the ability to monitor health, prevent, detect, treat and manage diseases
- Support older people to remain active and healthy
- Test and demonstrate new models and tools for health and care delivery

Societal Challenge 1 – General Information

Health, Demographic Change and Wellbeing

- The 7 special areas of PHC:
 - Understanding health, ageing and disease
 - Effective health promotion, disease prevention, preparedness and screening
 - Improving diagnosis
 - Innovative treatments and technologies
 - Advancing active and healthy ageing
 - Integrated, sustainable, citizen-centred care
 - Improving health information, data exploitation and providing an evidence base for health policies and regulation



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Societal Challenge 1: Health

TOPIC : Implementing the Strategic Research Agenda on Personalised Medicine

Identifier: SCI-HCO-03-2017 Deadline: 11 April 2017 17:00:00

Topic Description

Personalised medicine refers to a medical model using characterization of individuals' phenotypes and genotypes (e.g. molecular profiling, medical imaging, lifestyle data) for tailoring the right therapeutic strategy for the right person at the right time, and/or to determine the predisposition to disease and/or to deliver timely and targeted prevention. By providing the right intervention to the right person at the right time, personalised medicine can improve quality of life and contribute to more sustainable healthcare.

Expected Impact

- Deepened and extended coordination of national and transnational research in the field of personalised medicine.
- Streamlined national/regional and international practices in organising research funding.
- Increased interoperability of national research programmes.
- Increased sharing of data and knowledge.

Cross-cutting Priorities:

Socio-economic science and humanities; International cooperation; Gender

Societal Challenge 1: Health

TOPIC : Comparing the effectiveness of existing healthcare interventions in the adult population

Identifier: SC1-PM-10-2017 Deadline: 11 April 2017 17:00:00

Topic Description

- Effective health care and prevention may be improved by additional evidence as to the most effective health interventions. Growing numbers of patients affected by chronic diseases also call for efficiently managing co-morbidities. Proposals should compare the use of currently available preventative or therapeutic (pharmacological as well as non-pharmacological) healthcare interventions in adults. While there is no restriction on the diseases or interventions to be the focus of proposals, preference will be given to proposals focusing on interventions with high public health relevance and socio-economic impact.

Expected Impact

- Improvement of individual patient outcomes and health outcome predictability through tailoring of interventions.
- Improvement of guideline development for prevention or treatment of diseases and the management of comorbidities.
- Provision of more accurate information to patients, caregivers and prescribers.

Cross-cutting Priorities:

Socio-economic science and humanities; Gender

Societal Challenge 1: Health

TOPIC : Support for large scale uptake of Digital Innovation for Active and Healthy Ageing

Identifier: SC1-HCO-17-2017 Deadline: 31 January 2017 17:00:00

Topic Description

- Several activities on scaling up of digital innovation for active and healthy ageing are currently pursued by the Commission in cooperation with a large number of different stakeholder groups and partner organisations. A coordination and support action is needed to promote the effective uptake and impact of these activities and to leverage additional investments by mobilising other national and regional programmes together with private investments.

Expected Impact

- Increased uptake of digital solutions for Active and Healthy Ageing, including results from relevant Horizon 2020 research and innovation activities.
- Accelerated progress on favourable framework conditions to scaling-up digital innovation for active and healthy ageing across the EU.
- Contribution of the policy activities to i. The Quality of Life of the EU population, ii. The Sustainability of Health and Care delivery and iii. Economic growth and job-creation in the EU.

Societal Challenge 1: Health

TOPIC : Clinical Research in Regenerative Medicine

Identifier: SC1-PM-11-2016-2017 **Deadline:** 11 April 2017 17:00:00

Topic Description

- Regenerative medicine is a branch of translational research in tissue engineering and molecular biology which deals with the "process of replacing, engineering or regenerating human cells, tissues or organs to restore or establish normal function". Translating basic knowledge on regenerative medicine into the clinic is often delayed by the difficulty of undertaking "first in man" studies and carrying out the specific research needed for proving safety and efficacy of new treatments. Moreover, financing for these steps in the new therapeutic field of regenerative medicine is particularly scarce, due to lack of established business and regulatory models.

Expected Impact

- Obtain results by means of in-patient regenerative medicine research that allows new therapies to safely reach the next level of testing or medical practice.
- Stimulate growth and competitiveness of European regenerative medicine including European small and medium-sized enterprises and industry operating in the sector.
- Lever existing investments in fundamental research into regenerative medicine.
- Develop new approaches to currently untreatable diseases.

Societal Challenge 1: Health

TOPIC : Methods research for improved health economic evaluation

Identifier: SC1-PM-20-2017_ Deadline: 11 April 2017 17:00:00

Topic Description

- Health systems need to be resilient. They must be able to adapt effectively to changing environments, and tackle significant challenges with limited resources. Many changes are taking place including demographics and burdens of disease, advances in biomedical research, health technologies and personalised medicine, and the availability of large, population-based data sets. These changes highlight the need and potential to develop new or improved methods for economic evaluation.

Expected Impact

- Validated improved or new approaches for the collection and analysis of data for health economic evaluation, resulting in high-quality and comparable information within and across countries
- Validated improved or new approaches for integration of data from all relevant sources, to facilitate an informative and continuous assessment of health interventions and systems
- Validated improved or new indicators, measures and tools, to be used by decision-makers for resource allocation in health systems that are patient-centred, efficient and sustainable..

Cross-cutting Priorities:

Socio-economic science and humanities; Gender

Summary Points on Health & Wellbeing Programmes

- Most of the topics are aimed at 100% collaboration;
- Most of the topics have appeal outside of Europe and should be of interest to Africa; in fact health and wellbeing improvement is a global challenge;
- For those in the Health Sector, there is opportunity for everyone given the core areas:
 - *Understanding health, ageing and disease;*
 - *Effective health promotion, disease prevention, preparedness and screening;*
 - *Improving diagnosis;*
 - *Innovative treatments and technologies;*
 - *Advancing active and healthy ageing;*
 - *Integrated, sustainable, citizen-centred care;*
 - *Improving health information, data exploitation and providing an evidence base for health policies and regulation;*
- **Importantly, there are opportunities for private sector/ SME participation**



Societal Challenge 2: Food Security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-food_en.pdf

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Building Bi-regional Partnerships for Global Challenges



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Organisation Name(s): UniPID/University of Jyväskylä

25.9.2016

Societal Challenge 2: General Information

Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

- Leveraging research and innovation to address major societal challenges: ensuring food and nutritional security, resource efficiency, and facing climate change; sustainably exploiting the potential of the oceans; promoting dynamic territorial development, through the mobilisation of rural and coastal economies; boosting investment, employment and economic growth in the EU
- Aim to bring research and innovation to the heart of major primary to face the new challenges ahead, taking advantage of new potential in the biological, ecological, technical and information technology domains
- 2016-2017 focus on:
 - Sustainable Food Security
 - Blue Growth
 - Rural Renaissance
 - Bio-based innovation for sustainable goods and services

Societal Challenge 2: International Cooperation

Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

- Challenges addressed in the WP are of a global nature, requiring global solutions in cooperation with third countries and relevant international organizations or initiatives
- International cooperation will be encouraged and seek to maximize the benefits of collaboration with regions outside the EU in particular in view of solving common problems and meeting international commitments
- Particular priorities for international cooperation in this WP:
 - Blue Growth: support the implementation of the Atlantic Ocean Research Alliance (focus on Arctic) and the BLUEMED Initiative on marine and maritime research and innovation activities in the Mediterranean area;
 - Sustainable Food Security: support flagships initiatives with China and partnerships initiatives with East-Asian countries on aquaculture and **Africa on Food and Nutrition Security, Sustainable Agriculture, and the establishment of an International Research Consortium on animal health**

Societal Challenge 2: Sustainable Food Security

Sustainable Food Security - Resilient and resource-efficient value chains

- The focus area ‘sustainable food security’ will put greater emphasis on the resilience of primary production, coping with resource depletion and climate change, and research and innovation along the food value chain than the previous work programme (2014–2015).
- 2016-2017 focus on:
 - More resilient and resource efficient value chains
 - Environment-smart and climate-smart primary production
 - A competitive food industry
 - Healthy and safe foods and diets for all
- EU-Africa Cooperation:
 - Support to the implementation of the EU-Africa Partnership on Food and Nutrition Security and Sustainable Agriculture

Societal Challenge 2: Food Security / Overview

Topics

SUSTAINABLE FOOD SECURITY – RESILIENT AND RESOURCE-EFFICIENT VALUE CHAINS

SFS 4 – 2017: New partnerships and tools to enhance European capacities for in-situ conservation

SFS 5 – 2017: Robotics Advances for Precision Farming

SFS 7 – 2016/2017: Organic Breeding – Increasing the competitiveness of the organic breeding and farming sectors

SFS 8 – 2017: Organic Inputs – Contentious inputs in organic farming

SFS 10 – 2017: Research and approaches for emerging diseases in plants and terrestrial livestock

SFS 13 – 2017: Validation of diagnostic tools for animal and crop health

SFS 15 – 2016 -2017: Breeding livestock for resilience and efficiency

SFS 16 – 2017: Bee health and sustainable pollination

SFS 17 – 2017: Innovations in plant protection

SFS 18 – 2017: Framework Partnership Agreement supporting Joint Actions towards Public-Public Partnerships in the Bioeconomy

SFS 19 – 2016-2017: ERANET COFUND: Public-Public Partnerships in the bioeconomy

Societal Challenge 2: Food Security / Overview

Topics

SFS 20 – 2017: Towards a science-based regionalisation of the Common Fisheries Policy

SFS 21 – 2016/2017: Advancing basic biological knowledge and improving management tools for commercially important fish and other seafood species

SFS 22 – 2017: Smart fisheries technologies for an efficient, compliant and environmentally friendly fishing sector

SFS 27 – 2017: Permanent grassland – farming systems and policies

SFS 28 – 2017: Functional Biodiversity – Productivity gains through functional biodiversity – effective interplay of crop pollinators and pest predators

SFS 29 – 2017: Socio-Eco-Economics – Socio economics in ecological approaches

SFS 30 – 2017: Closing loops at farm and regional levels to mitigate GHG emissions and environmental contamination: focus on carbon, nitrogen and phosphorus cycling in agro-ecosystems

SFS 32 – 2017: Promoting and supporting eco-intensification of aquaculture production systems: inland (including fresh water), coastal zone and offshore

SFS 34 – 2017: SFS-34-2017: Innovative agri-food chains: unlocking the potential for competitiveness and sustainability

SFS 35 – 2017: Innovative solutions for sustainable food packaging

SFS 36 – 2017: Co-fund on “One Health” (zoonoses – emerging threats)

Societal Challenge 2: Food Security / Overview

Topics

SFS 39 – 2017: How to tackle the childhood obesity epidemic?

SFS 40 – 2017: Sweeteners and sweetness enhancers

SFS 43 – 2017: Earth observation services for the monitoring of agricultural production in Africa

SFS 46 – 2017: Alternative production system to address anti-microbial usage, animal welfare and the impact on health

SFS 47 – 2017: Management of soil water resources in EU and China and its impact on agro-ecosystem functions

SFS 48 – 2017: Resource-efficient urban agriculture for multiple benefits – contributions to the EU-China Urbanisation Partnership

SFS-49-2017 Better understanding the challenges facing agriculture and the impacts of policies – A European platform to support modelling in agriculture

SFS-50-2017 Supporting international cooperation activities on agriculture soil contribution to climate change mitigation and adaptation

Societal Challenge 2: Food Security

SFS-08-2017: Organic inputs – contentious inputs in organic farming

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Specific challenge: Despite having stricter standards and limitations on external inputs, organic agriculture still uses a number of products that are allowed under the EU organic regulation only due to a lack of economically and technically viable alternatives. Some are the subject of concern or not fully in line with organic principles. The most controversial practice in this respect is the use of copper as a plant protection product, but there is also an urgent need for alternatives to the use of mineral oils (for plant protection), manure from non-organic farms, synthetic vitamins and provitamins used in animal production, etc. Work needs to be done to develop alternatives to such contentious inputs, including preventive farm management methods.

Scope: Projects should provide a comprehensive overview of the current use of and need for external inputs in various types of organic plant and animal farming systems. Activities proposed should be aimed at reducing or gradually phasing out contentious inputs without compromising the competitiveness of the organic sector. Work shall identify and develop alternatives to contentious inputs and analyse the socio-economic conditions required for their adoption. The products and management practices developed should be tested in different pedo-climatic and farming conditions in the EU, allowing for wide geographical coverage within Europe, associated countries and relevant **third countries**. Projects should take into account the results and conclusions of previous research projects in the area. Proposals should fall under the concept of the 'multi-actor approach'²¹.

Societal Challenge 2: Food Security

SFS-10-2017: Research and approach for emerging diseases and pests in plants and terrestrial livestock

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Specific Challenge: Trade and the movement of goods and people have facilitated the transfer and spread of plant and animal diseases and pests, the prevalence of which is expected to increase further as a result of intensification, changes in agricultural practices and climatic variations. Emerging diseases and pests in plants or emerging infectious diseases in terrestrial animals can have a substantial impact on agricultural and forest productivity, trade and public health. African Swine Fever is such a highly infectious animal disease emerging in Europe, with an epidemiological situation raising serious concerns and for which a vaccine would be very useful to improve its control. Appropriate and rapid responses by decision-makers need to be informed by scientific evidence, addressing as far as possible all components of management in particular with regard to epidemiology (e.g. source, transmissibility, susceptible species), host-pathogen interactions, diagnostics, means of prevention and control, as well as risk management.

Scope: Proposals will contribute to understanding the drivers of emergence and to finding adequate responses to emerging pests and diseases in plants (work on *Xylella fastidiosa* is excluded under this call topic) and emerging infectious diseases in terrestrial animals. They will target one or more of the pests and diseases threatening EU agriculture/forestry (regulated or non-regulated, invasive or native) and causing significant economic losses, such as African Swine Fever. The choice of target species should consider the potential threat in terms of development and spread as well as potential impact on agricultural production, public health, or trade

Societal Challenge 2: Food Security

SFS-10-2017: Research and approaches for emerging diseases and pests in plants and terrestrial livestock

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Scope (continued): Proposals should increase knowledge on the biology, development and spread of pests/diseases. They should improve methods and strategies for risk assessment, prevention and containment and enlarge the range of tools for integrated and sustainable pest/disease management. **International cooperation** with countries affected or threatened by the same pest(s)/disease(s) is encouraged. Proposals should fall under the concept of the 'multi-actor approach' 23 and be based on the active participation of stakeholders from research, plant/animal health authorities and the farming and business sectors. Partners from non-EU regions particularly affected by the targeted pests and disease(s) should also be involved. As regards livestock, proposals should contribute as appropriate to the objectives of the STARIDAZ 24 international research consortium (see SFS-12-2016). They should involve cooperation as appropriate with relevant initiatives, e.g. in the context of such as EUPHRESCO and STAR-IDAZ, and other funded projects in this field, e.g. those selected under SFS-14-2016.

Individual proposals should tackle either plant pests/diseases or animal infectious diseases. Funding will allow for support for up to two projects on plant pests/diseases and one animal diseases.

Societal Challenge 2: Food Security

SFS-20-2017: Towards a science-based regionalisation of the Common Fisheries Policy

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Scope: Future approaches to fisheries management must take much closer account of regional fisheries practices, the specificities of regional ecosystems, and of the diverse "multi-actor"⁴⁰ interests as a basis for implementing an ecosystem-based approach, without disregarding the likely interconnections with large marine ecosystems. On a regional basis, projects should identify potential biological, technical, economic, administrative, social and societal barriers to achieving the CFP's fisheries management objectives, through regionalisation instituted by Article 18 of the new Regulation (EU) No 1380/2013. Projects should identify potential social and economic imbalances arising from changes allowing the fishing industry and fisheries managers to adapt to new knowledge and new governance arrangements. Highlighting strengths and weaknesses of the emerging regionalisation process and structures, research projects should also develop and propose ways of resolving or circumventing barriers that have been identified and the means to evaluate how effective these ways are, especially in the Mediterranean Sea. Projects should consider work being carried-out in regional seas conventions (RSCs) and explore how RSCs and regional fisheries management structures can work better together.

In line with the objective of the EU Strategy for **international cooperation** in research and innovation (COM (2012) 497), proposals addressing the Mediterranean should contribute to implement the Research and Innovation Initiative for Blue Jobs and Growth in the Mediterranean Area (The BLUEMED Initiative)⁴¹ .

Societal Challenge 2: Food Security

SFS-27-2017: Permanent grassland – farming systems and policies

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Scope: Proposals should develop integrated approaches for permanent grassland management which are cost-effective, environmentally sound and easily manageable. Synergies and tradeoffs between productivity, biodiversity and continuity of the delivery of ecosystem services will be analysed in different contexts of intensification. Projects will develop farm-level decision support tools for the management of permanent grassland so as to enhance biomass production (for ruminant and/or innovative uses and markets) and the delivery of ecosystem services to society. Aspects of livestock health and welfare shall be given due consideration.

Activities will include the collection of relevant data to monitor, benchmark and analyse the performance of farming systems in terms of productivity, carbon sequestration, socioeconomics, biodiversity and the delivery of ecosystem services. Proposals will develop and stratify farm networks reflecting relevant European pedo-climatic and socio-economic conditions and involve experimental stations, experimental farms and commercial farms to produce references and identify innovative approaches. Proposals could possibly use instrumented farm platforms to compare different forms of grassland management in order to determine the value of permanent grasslands as providers of food and other ecosystem services. Projects are expected to cover both conventional and organic sectors.

Societal Challenge 2: Food Security

SFS-27-2017: Permanent grassland – farming systems and policies

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Scope (continued):

On the basis of the farm network output, work will help in the assessment of the effect of various grassland policies on biodiversity and delivery of ecosystem services including carbon sequestration. Taking into consideration the importance and the diversity of grasslands in Europe, this policy analysis could also be extended to **relevant third countries**. Innovative approaches to creating, maintaining and restoring permanent grassland should be proposed at the appropriate territorial scale. Proposals should develop agri-environmental indicators (including soil carbon content) on grasslands and grassland-based systems as a basis for better recognition of the ecosystem goods and services that permanent grasslands can provide.

Societal Challenge 2: Food Security

SFS-43-2017: Earth observation services for the monitoring of agricultural production in Africa

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Specific Challenge: The Fourth EU-Africa Summit of 2-3 April 2014 agreed on a roadmap for 2014-2017⁶⁴ including actions specifically targeted at delivering Earth observation services in priority domains for Africa such as food security. This topic aims to contribute to this roadmap by providing food supply projection and agricultural risk assessment for Africa. These kinds of projection remain very challenging tasks, requiring a lot of information on environmental and weather conditions, climate change, crops and livestock. This information is usually derived from both remote and in-situ Earth observation systems. The challenge is therefore to make agricultural production in Africa more predictable by using Earth observation assets, including – but not limited to – those made available through the Global Earth Observation System of Systems (GEOSS) and Copernicus programmes.

Scope: The action should lead to substantially increasing the use of Earth observing capabilities and supporting application systems to produce timely, objective, reliable, and transparent crop and livestock production projection at the national and regional level for the African continent. It should support the GEOGLAM 65 and AfriGEOSS⁶⁶ initiatives and relevant aspects of the EU's development policy.

Societal Challenge 2: Food Security

SFS-43-2017: Earth observation services for the monitoring of agricultural production in Africa

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Scope (continued):

Moreover, it should design and develop methods to assess/monitor agricultural production in Africa, taking into account its main drivers and the longer term impacts of its dynamics. Building on the outcomes of existing EU projects stimulating innovation for global agricultural monitoring – such as SIGMA67 –, the research and innovation activities should cover as a minimum all the following domains: crop and livestock identification and crop and livestock area estimation, crop and livestock condition and stress, yield prediction and forecasting, crop cover mapping, and the impact of extreme events on food production.

The action should foster participatory approaches to collecting relevant information and data, taking advantage of the growing number of mobile communication devices owned by African citizens. The participatory approaches should also take into account, and build on, widespread women's engagement in agricultural production and food supply. There should be an emphasis on 'consensus of evidence approaches', integrating data from multiple sources including Earth observations, crop models, weather forecast, climate predictions and projections, surveys and ground observations to reach evidence-based assessments using repeatable and scientifically sound methods.

Societal Challenge 2: Food Security

SFS-43-2017: Earth observation services for the monitoring of agricultural production in Africa

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Scope (continued):

Large proof-of-concept actions, showing the capacity to deliver food supply prediction and agriculture risk assessment beyond the current state-of-the art at regional/pan-African level should be performed by the action. Proposals should contribute to supporting the implementation of an EU-Africa partnership on Food and Nutrition Security and Sustainable Agriculture and should include partners clearly representing the diversity of African countries

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged, in particular with African countries. The action should establish cooperation with institutions/networks engaged in the development of climate services in Africa and with agencies which have developed mapping and assessment tools used in humanitarian decision making.

Societal Challenge 2: Food Security

SFS-50-2017 Supporting international cooperation activities on agriculture soil contribution to climate change mitigation and adaptation

Call: H2020-SFS-2016-2017

Deadline: 14.2.2017

Specific challenge: Climate change is among one of the threats for the future capacity of agriculture to cope with increased demands on food production. This challenge can be addressed, among other options, by changes in land and soil management at the farm level. There is a strong direct link between the soil management and a significant contribution of agriculture sector to climate change mitigation and adaptation (i.e. outcome of the COP21, 4 per 1000 initiative, links to SDGs). There is a strong need to develop synergies on research in this area at EU and global level. The results of this activity should contribute to climate change mitigation and adaptation debate and consider the ongoing work on Sustainable Development Goals implementation.

Scope: Proposals should cover the topic of soil carbon sequestration and its links with climate change mitigation from the perspective of agricultural sector. Other areas to be tackled should include land (use) management within the scope of this topic. Participation of initiatives such as the Global Research Alliance (GRA), the Joint Programming Initiative on Sustainable Agriculture, Food Security and Climate Change (FACCE) or the 4 per 1000 initiative is encouraged.

Societal Challenge 2: Food Security

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Societal Challenge 2: Blue Growth

Blue Growth: Demonstrating an ocean of opportunities

- Aims at bringing technologies to the readiness level needed for commercial applications and will improve current European marine observing, surveying and monitoring capabilities in order to increase our knowledge and understanding of the complex marine environment and its interaction with human activities.
- 2016-2017 focus on:
 - Boosting innovation for emerging Blue Growth activities
 - Linking healthy oceans and seas with healthy people
 - The Arctic dimension
 - Valorising the Mediterranean Sea Basin
- International cooperation supporting the Mediterranean Sea Coast

Societal Challenge 2: Blue Growth / Overview

Topics

BLUE GROWTH – DEMONSTRATING AN OCEAN OF OPPORTUNITIES

BG 2 – 2016/2017: High value-added specialised vessel concept enabling more efficient servicing of emerging coastal and offshore activities

BG 4 – 2017: Multi-use of the oceans' marine space, offshore and near-shore: Enabling technologies

BG 6 – 2017: Interaction between people, oceans, and seas: a strategic approach towards healthcare and wellbeing

BG 7 – 2017: Blue green innovation for clean coasts and seas

BG 8 – 2017: Innovative sustainable solutions for improving the safety and dietary properties of seafood

BG 11 – 2017: The effect of climate change on arctic permafrost and its socio-economic impact, with a focus on coastal areas

BG-14-2017 Monitoring and assessing fish stocks, other pelagic species and habitats with an automated, non-invasive, opto-acoustic system

Societal Challenge 2: Rural Renaissance

Rural Renaissance: Fostering innovation and business opportunities

Aim to support a 'rural renaissance' by raising the natural, social, cultural and economic potential of rural areas and fostering policy coherence. It will aim to boost economic development, environmental services and entrepreneurial innovation, in particular in SMEs, in rural and coastal areas. This will be achieved by building on diversification and modernisation strategies and capitalising on local assets, including human, natural and cultural capital

- Focus areas:
 - New approaches towards policies and governance
 - New value chains and business models
 - Innovation and skills development

Societal Challenge 2: Rural Renaissance / Overview

Topics

RURAL RENAISSANCE – FOSTERING INNOVATION AND BUSINESS OPPORTUNITIES

RUR 2 – 2017: Coastal-rural interactions: enhancing synergies between land and sea-based activities

RUR 3 – 2017: Towards 2030: policies and decision tools for an integrated management of natural resources

RUR 5 – 2017: Novel public policies, business models and mechanisms for sustainable supply and payment of forest ecosystems services

RUR-09-2017 Business models for modern rural economies

RUR 10 – 2016-2017: Thematic Networks compiling knowledge ready for practice

RUR 12 – 2017: Networking European farms to boost thematic knowledge exchanges and close the innovation gap

RUR-15-2017 The benefits of working with others – fostering social capital in the farming sector

RUR-16-2017 Optimising interactive innovation project approaches and the delivery of EU policies to speed up innovation in rural areas

Societal Challenge 2: Rural Renaissance

RUR-16-2017: Optimising interactive innovation project approaches and the delivery of EU policies to speed up innovation in rural areas

Call: H2020-RUR-2016-2017

Deadline: 14.2.2017

2nd Stage: 13.9.2017

Scope: Proposals should explore how instruments and approaches under the various policies could be further adjusted and how they contribute to innovation in the agricultural and forestry sector. Learning also from experience at international level, proposals should investigate the design and implementation of interactive innovation projects, on the basis of a substantial number of case studies of interactive projects in a broad range of agriculture and forestry sectors.

An essential part of this topic would develop detailed best practices/approaches for H2020 multi-actor projects and thematic networks at project level. On the basis of a series of cases of existing multi-actor projects and thematic networks, proposals should develop best practices for consortia to combine as much as possible both scientific and practical knowledge in their projects and exploit them to the full.

Proposals should fall under the concept of the 'multi-actor approach' involving key actors in the AKIS (farmers, advisors, researchers, research bodies, social scientists, managing authorities, network agents, enterprises, etc.) and using the work of the SCAR-AKIS Strategic Working Group, as appropriate. They may include insights from outside Europe.

> Research and innovation action

Societal Challenge 2: Bio-based Innovation / Overview

Bio-based innovation for sustainable goods and services: Supporting the development of a European Bioeconomy

- Aim is to embrace two main aspects of the bio-based innovation. Firstly, it will encompass the production, mobilisation and use of biomass including new business and service models, to sustainably secure raw material supply for a wide range of industrial products taking into account potential trade-offs of competing land-uses. Secondly, it will consider stakeholders' engagement and demand-side measures supporting market development of bio-based products.
- 2016-2017 focus on:
 - Securing sustainable biomass supply for bio-based goods and services
 - Building the "bio-based markets of the future"- mobilising stakeholders engagement

Societal Challenge 2: Bio-based Innovation/ Overview

Topics

BIO-BASED INNOVATION FOR SUSTAINABLE GOODS AND SERVICES – SUPPORTING THE DEVELOPMENT OF A EUROPEAN BIOECONOMY

BB 2 – 2017: Towards a method for the collection of statistical data on bio-based industries and bio-based products

BB 3 – 2017: Adaptive tree breeding strategies and tools for forest production systems resilient to climate change and natural disturbances

BB 5 – 2017: Bio-based products: Mobilisation and mutual learning action plan

BB-07-2017: Plan Molecular Factory

BB-08-2017 Strategies for improving the bioeconomy knowledge of the general public

Societal Challenge 2 – Topics for African Researchers Summarized

Topics

SFS 8 – 2017: Organic inputs – Contentious inputs into organic farming

SFS 10 – 2017: Research and approaches for emerging diseases in plants and terrestrial livestock

SFS-20-2017 Towards a science-based regionalisation of the Common Fisheries Policy

SFS-27-2017 Permanent grassland – farming systems and policies

SFS 43 – 2017: Earth Observation services for the monitoring of agriculture production in Africa

SFS-50-2017 Supporting international cooperation activities on agriculture soil contribution to climate change mitigation and adaptation

RUR 16 – 2017: Optimising interactive innovation project approaches and the delivery of EU policies to speed up innovation in rural areas



Societal Challenge 5: Climate action, environment, resource efficiency and raw materials

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-climate_en.pdf

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Building Bi-regional Partnerships for Global Challenges



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Organisation Name(s): UniPID/University of Jyväskylä

25.9.2016

Societal Challenge 5: General Information

Climate action, environment, resource efficiency and raw materials

Objective is to achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the limits of the planet's natural resources and eco-systems.

- Actions will:
 - Address gaps in the knowledge base
 - Identifying policies, methods, & tools to tackle challenges
- 2016-2017 focus on:
 - Greening the economy

Societal Challenge 5: Green Economy

Climate Services

Aim to build Europe's capacity to respond to and improve resilience to climate change by strengthening significantly the nascent global market for demand-driven climate services for both climate change mitigation and adaptation needs.

- 2016-2017 focus on:
 - Exploiting the added value of climate services
 - Integrated European regional modelling and climate prediction system
 - Climate services market research
 - Towards a robust and comprehensive greenhouse gas verification system
 - A 1.5 million year look into the past for improving climate predictions

> Research and innovation actions

Societal Challenge 5: Climate/ Overview

Topics

CLIMATE SERVICES

SC5 1 – 2016/2017: Exploiting the added value of climate services

SC5 2 – 2017: Integrated European regional modelling and climate prediction system

SC5 4 – 2017: Towards a robust and comprehensive greenhouse gas verification system

TOWARDS A LOW-CARBON EUROPE

SC5 6 – 2016/2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond

SC5 7 – 2017: Coordinating and supporting research and innovation actions on the decarbonisation of the EU economy

NATURE-BASED SOLUTIONS FOR TERRITORIAL RESILIENCE

SC5 8 – 2017: Large-scale demonstrators on nature-based solutions for hydrometeorological risk reduction

RAW MATERIALS

SC5 13 – 2016/2017: New solutions for sustainable production of raw materials

SC5 14 – 2016/2017: Raw materials Innovation actions

SC5 15 – 2016/2017: Raw materials policy support actions

SC5 16 – 2016/2017: Raw materials international co-operation

Societal Challenge 5: Climate/ Overview

Topics

EARTH OBSERVATION

SC5 18 – 2017: Novel in-situ observation systems

SC5 19 – 2017: Coordination of citizen observatories initiatives

CULTURAL HERITAGE FOR SUSTAINABLE GROWTH

SC5 21 – 2016/2017: Cultural heritage as a driver for sustainable growth

SC5 22 – 2017: Innovative financing, business and governance models for adaptive re-use of cultural heritage

SUPPORT TO POLICY AND PREPARING FOR INNOVATION PROCUREMENT

SC5 23 – 2016/2017: Support to confirmed Presidency events (conferences) – Malta, United Kingdom, Estonia

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

Societal Challenge 5: Climate Change

SC5-02-2017: Integrated European regional modelling and climate prediction system

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope: The main research objective of this action is to develop an innovative European regional ensemble climate prediction system based on a new generation of high-resolution climate models, covering timescales from seasons to decades initialised with observations. The action should conduct a series of multi-method and multi-model experiments in order to better capture uncertainties, and provide user-centred and demand-driven information which addresses user needs at various levels. The system should focus on near term (~1-40 years) predictions, which is the time span most relevant for many decisions of businesses and public authorities for infrastructure and other planning.

The regional downscaling programme, an integral part of the multi-model ensemble prediction system, should target Europe at the best technically achievable spatial resolution. Methodologies should be transferable to other geographical areas. Evaluation of model results against observations is considered essential.

Climate model data should be widely disseminated, and therefore need to be easily accessible and available in line with Copernicus Climate Change service specifications.

Societal Challenge 5: Climate Change

SC5-02-2017: Integrated European regional modelling and climate prediction system

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope: *(continued)*

Strong engagement with stakeholders and climate information end-users, including public sector policy-makers, business organisations and customers representing specific market sectors is an essential requirement of this action.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), **international cooperation** is encouraged, in particular with countries having developed similar systems and with countries wishing to develop capacities.

Societal Challenge 5: Climate Services

SC5-04-2017: Towards a robust and comprehensive greenhouse gas verification system

Call: H2020-climate services-2017-single-stage

Deadline: 7.3.2017

Scope: Actions should quantify more accurately the stocks and fluxes of CO₂, CH₄, and N₂O in Europe at both regional and continental scales through improved descriptions of key processes and feedbacks, state-of-the art methodologies, models and tools and by exploiting observations from a wide range of monitoring networks (in-situ and satellite). Special attention should be given to independent verification of data reported in countries' greenhouse gas inventories and to the improvement of the methods/approaches currently used for estimating greenhouse gas emissions (e.g. national inventories, tracer transport inversion using atmospheric and oceanic measurements, land-use measurements and models). Proposals should aim to develop widely accepted and scientifically robust methodologies in order to decrease to acceptable levels uncertainties associated with emission estimates and better identify human-induced emissions. The development and improvement of methodologies should also address the need for versatility of application, for example for the tracking of land-based mitigation activities and provision of results relevant to current and potential future land-based GHG accounting systems. Furthermore, **issues such as data standards, transfer of information and tools, and replicability of methodologies and tools outside Europe (mainly in developing countries) should also be addressed.**

> Research and innovation action

Societal Challenge 5: Climate Change

SC5-06-2016-2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope:

Trans-disciplinary approaches, including social sciences, are considered necessary to address this specific challenge. Projects should also foresee activities to cluster with other projects financed under this topic and – if possible – also under other parts of Horizon 2020. Proposals should address one of the following:

a) ...

b) Assessment of the global mitigation efforts in the perspective of the long-term climate goal (2016): The Parties of the United Nations Framework Convention on Climate Change (UNFCCC) agreed to limit the rise of global mean temperature to 2°C compared to preindustrial levels, in order to prevent dangerous anthropogenic (i.e. human-caused) interference with the climate system. The 21st Conference of Parties of the UNFCCC, known as COP21, which will be held in December 2015 in Paris, will mark a milestone in the course of international efforts to engage on global climate action consistent with the 2°C target.

Societal Challenge 5: Climate Change

SC5-06-2016-2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope(continued):

Proposals should analyse the adequacy of the outcomes of COP21 and the pledges of major emitting countries in view of the long-term climate goal. Proposals should also address the available pathways and necessary level of actions that will be needed to be on track with the objective of limiting temperature increase to below 2°C. Furthermore, proposals should analyse the implications and opportunities emerging from the UNFCCC negotiations on European decarbonisation and broader objectives, particularly in view of industrial competitiveness, green growth, international trade, energy security, public finance and crossborder capital flows.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), **international cooperation** is encouraged, in particular with countries that substantially contribute to global greenhouse gas emissions. Proposals should include partners from (non-European) high-, middle- and/or low-income countries. The Commission considers that proposals requesting a contribution from the EU of between EUR 2 million and 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.

c) ...

Societal Challenge 5: Climate Change

SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope:

Via large-scale demonstration, projects should aim to:

- develop, demonstrate and deploy innovative systemic and yet locally attuned nature-based solutions, including green and blue infrastructure and ecosystem-based management approaches, in rural and natural areas, including particularly sensitive ones such as mountainous and coastal areas, for hydro-meteorological risk reduction at watershed/landscape scale. Solutions should be incorporated in an integrated design concept for land management and planning and be co-designed and co-deployed in a trans-disciplinary multi-stakeholder and participatory context with due consideration to and integration of social and cultural aspects and climate change effects;
- develop a comprehensive framework for the comparison of green and blue/grey/hybrid hydro-meteorological risk prevention and reduction solutions, taking into account wider land use and adaptation to the effects of climate change, considering impacts on landscape, local communities and cultural acceptance as well as co-benefits such as biodiversity conservation/enhancement, more sustainable local livelihoods, human health and well-being, climate change mitigation, etc.;

Societal Challenge 5: Climate Change

SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope:

Via large-scale demonstration, projects should aim to:

- identify and assess barriers related to their social and cultural acceptance and policy regulatory frameworks and propose ways to overcome them;
- develop methodologies , tools and best practices enabling the replication and up-scaling of nature-based solutions in different contexts, including replication of innovative investment strategies, governance and business models, as well as performance assessment tools, protocols and standards for the design, operation and maintenance of these solutions;
- provide a consolidated evidence-base on co-development processes, performance standards, cost-effectiveness, operational requirements, life cycle costs and the multiple benefits of nature-based solutions as economically, socially, culturally and environmentally viable alternatives for hydro-meteorological risk reduction and climate change adaptation at watershed/landscape level, also considering the potential and limits of the solutions under different circumstances and conditions;

Societal Challenge 5: Climate Change

SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope:

Via large-scale demonstration, projects should aim to:

- establish long-term sustainable data platforms considering existing initiatives and alternative options, such as pan-European web-based repositories, securing open, consistent data and performance measurements and interoperability of data infrastructures to ensure effective communication, public consultation, exchange of practices and sharing of experiences and a continuous building up of the 'knowledge portfolio' in the longer term (i.e. following project completion).

Proposals shall address **all** of the above points. The contribution of social sciences and humanities to these processes is considered necessary.

In line with the strategy for EU **international cooperation** in research and innovation (COM(2012)497), cooperation and synergies with similar international demonstration activities on nature-based solutions for hydro-meteorological risk reduction and climate change adaptation, funded under different financial arrangements or programmes, is encouraged to facilitate mutual learning, sharing of experience, networking and follow-up. The project proposals could already indicate which interested regions/countries or other partners have been pre-identified for contact during the project.

Societal Challenge 5: Climate Change

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

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

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

All proposals should cover all the following points:

- justify relevance of selected pilot demonstrations, finishing at Technology Readiness Levels (TRL) 6-8, in different locations within the EU (and also outside if there is a clear added value for the EU economy, industry and society);
- facilitate the market uptake of solutions developed through industrially- and user-driven multidisciplinary consortia covering the relevant value chain;
- include an outline of the initial exploitation and business plans (with indicated CAPEX, OPEX, IRR and NPV38) with clarified management of Intellectual Property Rights, and commitment to the first exploitation;
- consider standardisation aspects when relevant;
- assess health, safety and environmental risks and their management for all proposed actions to avoid environmental damage and maintain overall environmental stability;
- include a plan to communicate the added value of the proposal to the local communities and society for improving public acceptance and trust should be addressed by all the proposals. Participation of civil society from the start of exploration until after-closure activities in a process of co-design, co-development and co-implementation is strongly encouraged.

Societal Challenge 5: Climate Change

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

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope (continued):

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

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

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

Societal Challenge 5: Climate Change

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

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Proposals shall address only one of the following issues:

- a) ...
- b) Processing of lower grade and/or complex primary and/or secondary raw materials in the most sustainable ways (2017): Proposals should demonstrate new systems integrating relevant processing and refining technologies for better recovery of minerals and metals from low grade and/or complex ores, industrial or mining wastes at increased efficiency in terms of better yield and process selectivity. The importance of the targeted raw materials and their HORIZON 2020 - Work Programme 2016 - 2017 Climate action, environment, resource efficiency and raw materials Part 12 - Page 50 of 99 sources for the EU has to be demonstrated in the proposal. The solution proposed should be flexible enough to adapt to different ore grades and should be supported by efficient and robust process control.
- c) Sustainable metallurgical processes (2017): Proposals should develop innovative metallurgical systems integrating pyro-, hydro-, bio-, and/or electro-metallurgical and/or electrochemical technologies, in order to enhance the production efficiency, metal recovery and selectivity from primary and/or secondary raw materials.

Societal Challenge 5: Climate Change

SC5-16-2016-2017: Raw materials international co-operation

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope: Proposals should address one of the following:

- a) ...
- b) ...
- c) International network of raw materials training centres (2017): Proposals should create a self-sustainable long-term lasting international network of training centres for professionals. The proposals should involve educational and research institutions in the EU and the leading counterparts in third countries, based on specific country expertise in the primary and secondary raw materials sectors. The network should map skills and knowledge in the EU and the **third countries**, identify key knowledge gaps and emerging needs, develop roadmap for improving skills and knowledge, as well as establish common training programmes in the raw materials sectors.

In line with the EU's strategy for **international co-operation** in research and innovation (COM(2012)497), international collaboration is required. Where appropriate, synergies with the relevant EU Member States initiatives are to be explored and fostered.

Societal Challenge 5: Earth Observation

SC5-18-2017: Novel in-situ observation systems

Call: H2020-SC5-2017-single-stage

Deadline: 7.3.2017

Scope: Proposals shall address one of the following issues:

Actions should develop new, in-situ Earth observation systems, taking advantage of new technology and the latest developments in sensor science so that measurements can be performed using low energy sensors and communication systems, requiring less demanding maintenance. Actions should focus on the transfer and adaptation of new technologies into operational systems, enabling a real breakthrough in the efficiency of deploying and maintaining new in-situ observing systems in a cost-effective way. The research and innovation activities under this topic may take into account concepts such as citizens' observatories, disposable sensors, and the use of unmanned platforms. The project should take into account as much as possible relevant research outcomes from programmes of the European Research Council, the Leadership in Enabling and Industrial Technologies and the European Metrology Research Programme.

Proposals should establish formal links, where appropriate, with the GEO Global Initiatives (e.g. GEOGLAM, GEOBON, GFOI, GMOS, AFRIGEOSS, BLUE PLANET) and with the relevant Copernicus services so that the new monitoring and observing platforms fulfil well-identified needs under these two major initiatives.

> Research and innovation

Societal Challenge 5: Climate Change

SC5-21-2016-2017: Cultural heritage as a driver for sustainable growth

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope:

a) ...

b) Heritage-led rural regeneration: Actions should develop and deploy via large-scale demonstration projects novel heritage-led systemic approaches and solutions for sustainable growth. In order to pave the way for their rapid replication and up-scaling, a 'Role models' and 'Replicators' approach should be implemented.

The 'Role models' are urban or rural landscapes which have demonstrably and successfully pursued a heritage-led regeneration.

The 'Replicators' are urban or rural landscapes that will be assisted/mentored by 'Role models' and committed to their heritage-led regeneration within the duration of the project, replicating the heritage-led regeneration 'blueprints' of the 'Role models', properly contextualised to fit their particular contexts. The 'Replicators' will therefore proactively seek advice, assistance and mentoring from the 'Role models', have privileged contact with them and access to their know-how, and will participate in the definition of user requirements and the methodology for transferability of solutions, data collection etc.

Societal Challenge 5: Climate Change

SC5-21-2016-2017: Cultural heritage as a driver for sustainable growth

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope (continued):

The higher the number of 'Role models' and 'Replicators' involved, the larger the evidence base and hence the replicability and up-scalability potential of the project outputs under different contexts. The Commission considers that involving six 'Role models' and three 'Replicators' from different Member States/Associated Countries would greatly enhance the potential of a proposal for replicating and up-taking of the results across Europe. Beyond this and in line with the strategy for EU **international cooperation** in research and innovation (COM(2012)497), participation of 'Role models' from non-EU countries is encouraged, since this would further enrich the evidence base of successfully implemented heritage-led regenerations and would thus enhance the replication and impact potential of such activities in non-EU regions (e.g. Latin America) and countries.

Replication critically depends on the timely and active involvement of the 'Replicators' in the project development, the effective and continuous knowledge transfer, mentoring, networking and support by the 'Role models' (e.g. through staff exchanges to enhance their capacity in, among other things, securing the financial resources necessary for the regeneration through innovative financing and business models, partnerships (e.g. public/ private) and mobilisation of investments).

Societal Challenge 5: Climate Change

SC5-21-2016-2017: Cultural heritage as a driver for sustainable growth

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope (continued):

Proposals should address all of the following points:

- map, analyse and systematically document successful heritage-led regeneration models in 'Role models', linking where appropriate cultural and natural heritage; make this evidence base readily accessible to an EU-wide community of competent and interested authorities, planners, practitioners, enterprises and stakeholders (including civil society) through innovative communication and training strategies. Particular emphasis should be paid to successful business and management models, financing mechanisms, leveraging of investments, governance structures, urban and territorial plans and legal frameworks. 'Role models' would, if they so wish, also have the possibility of further upscaling their regeneration activities during the life of the project;
- assist 'Replicators' through provision of expertise, advice and capacity building in developing and implementing during the life of the project their heritage-led regeneration plans, including appropriate business and management models, financing mechanisms, governance structures, planning tools and legal frameworks;

Societal Challenge 5: Climate Change

SC5-21-2016-2017: Cultural heritage as a driver for sustainable growth

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope (continued):

- set up a robust monitoring scheme to monitor the performance of the deployed regeneration scheme, so as to assess the impact for the targeted rural and urban areas in an as quantifiable way as possible against a well-defined baseline at the time of the proposal. Performance monitoring should last for a period of at least 2 years within the life of the project. Longer term monitoring commitment beyond the end of the project, while continuing the systematic documentation of the data, will give an added value to the proposal;
- develop methodologies enabling the replication and up-scaling of heritage-led urban regeneration projects in different contexts, including replication of innovative investment strategies, governance and business models;
- identify potential regulatory, economic and technical barriers and propose concrete ways to optimise policy and regulatory and administrative frameworks;
- establish long-term sustainable data platforms securing open, consistent data and performance measurements and interoperability of data infrastructures to ensure effective communication, public consultation, exchange of practices and sharing of experiences and a continuous building up of the 'knowledge portfolio' through future activities under Horizon 2020 and beyond, and long-term (i.e. beyond the life of the project) exploitability of the results.

Societal Challenge 5: Climate Change

SC5-31-2017: Widening international cooperation activities on climate adaptation and mitigation

Call: H2020-SC5-2016-2017

Deadline: 7.3.2017

Scope:

Proposals should aim to create a framework and permanent dialogue to encourage, in a structured and strategic manner, the opening of the JPI Climate to **international cooperation** with key international climate research and innovation programmes, as well as funding and investment institutions. Proposals should also undertake activities to align with and support the 2030 Agenda for Sustainable Development, in particular on climate change resilience, adaptation, mitigation and disaster risk reduction. Flagship actions for possible joint funding with members of the JPI Water, JPI Urban Europe, JPI Oceans or key international cooperation partners and international programmes of strategic importance for the EU, such as the Belmont Forum, should also be identified and prepared for in advance.

This action should also organize and develop the knowledge base required to address climate challenges and EU policy priorities within a global perspective. This can be accomplished by providing open and integrated analysis of research results and recommendations to the United Nations Framework Convention on Climate Change to combat climate change and its impacts. It should aim to contribute to: strengthening resilience and adaptive capacity to climate related hazards; integrating climate change measures into national policies, strategies, and planning; improving education, awareness raising and human and institutional capacity on climate change mitigation, resource efficiency, adaptation, impact reduction, early warning and resilience to disasters; supporting LICs/LMICs in the context of meaningful mitigation actions and transparency on implementation, operationalization and evaluation of the Green Climate Fund; promoting mechanisms for raising capacities for effective climate change related planning and management in LICs/LMICs, including focusing on women, youth, local and marginalized communities.

Societal Challenge 5 – Topics for African Researchers Summarized

SC5 2 – 2017: Integrated European regional modelling and climate prediction system

SC5 4 – 2017: Towards a robust and comprehensive greenhouse gas verification system

SC5 6 – 2016-2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond

SC5-08-2017 Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

SC-14-2016-2017 Raw materials innovation actions

SC5 16 – 2016-2017: Raw materials international co-operation

SC5 18 – 2017: Novel in-situ observation systems

SC5 21 – 2016-2017: Cultural heritage as a driver for sustainable growth

SC5-31-2017 Widening international cooperation activities on climate adaptation and mitigation



Marie Skłodowska-Curie Actions

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf

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Building Bi-regional Partnerships for Global Challenges



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25.9.2016

MSCA in Brief

- The Marie Skłodowska-Curie actions support researchers at all stages of their careers, irrespective of nationality.
- Researchers working across all disciplines are eligible for funding.
- The MSCA also support industrial doctorates, combining academic research study with work in companies, and other innovative training that enhances employability and career development.

For Whom?

- Researchers at all stages, be they doctoral candidates or highly experienced researchers
- Open to all domains of research and innovation from fundamental research to market take-up and innovation services
- Research and innovation fields chosen freely by the applicants in a fully 'bottom-up' manner
- Mobility is a key requirement in the MSCA, funding granted on the condition of moving from one country to another
- Overlap with other programmes to be considered, e.g. Euratom Framework Programme

For What Purpose?

- In addition to generous research funding, gives scientists have the possibility to gain experience abroad and in the private sector, and to complete their training with competences or disciplines useful for their careers
- Encourages transnational, intersectoral and interdisciplinary mobility
- Equips researchers with the necessary skills and international experience for a successful career either in the public or the private sector
- Responds to the challenges faced by researchers, offering them attractive working conditions and the opportunity to move between academic and other settings

Different Kinds of MSCA

1. Innovative Training Networks
2. Individual Fellowships
3. Research and Innovation Staff Exchange
4. Co-funding for regional, national and international programmes
5. European Researchers' Night

Current and Upcoming MSCA Calls

Currently open calls:

- MSCA-ITN-2017 Innovative Training Networks, deadline 10 January 2017

Upcoming calls:

- MSCA-RISE-2017 Research and Innovation Staff Exchange, deadline 05 April 2017
- MSCA-NCP-2017 MSCA National Contact Points, deadline 04 May 2017
- MSCA-IF-2017 Individual Fellowships, deadline 14 September 2017
- MSCA-COFUND-DP and MSCA-COFUND-FP Co-funded Doctoral and Fellowship Programmes, deadline 28 September 2017

Want more information?

Horizon 2020:

<http://ec.europa.eu/programmes/horizon2020/>

All Open Calls: <http://bit.ly/1NsU9yZ>

International Cooperation in Horizon 2020:

<http://bit.ly/1mupFMK>

Reference Documents: <http://bit.ly/IFEGf1>

Thank you



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