



National Contact Points (NCPs) for Horizon 2020

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Building Bi-regional Partnerships for Global Challenges



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NCP services

- The type and level of services offered differ from country to country. In general, the following basic services will be available in accordance with the Minimum standards and guiding principles:
 - Guidance on choosing thematic priorities and instruments
 - Advice on administrative procedures and contractual issues
 - Training and assistance on proposal writing
 - Distribution of EC documentation (forms, guidelines, manuals etc.)
 - Assistance in partner search and networking

NCPs– a system with flexibility and diversity

The NCP systems in the different countries **show**

- A wide **variety of architectures**, from highly **centralised** (All thematic NCPs are affiliated to one organization) to **decentralised networks** (Scattered thematic NCPs with a National Coordinator linking them all and aligning their work with the National Strategies),
- A number of very different actors, from ministries to universities, research centres and special agencies to private consulting companies

**flexibility to each country to establish a tailor-made
NCP structure**

Some basic characteristics – Human Capacity

- In about a quarter of the countries the NCP service is provided centrally by one single organisation.
- Other countries have more decentralised systems with up to 32 different organisations involved.
- National ministries act as NCPs in 2/3 of the countries, with two countries (Israel & The Netherlands) having the ministry as sole organisation.
- Private enterprises are NCPs in 6 countries.
- The number of full time equivalent staff delivering NCP services ranges from 3 to 43 per country.
- In total, about 400 persons (full-time equivalent) are working as NCPs in the 33 Member and Associated States.

Some basic characteristics – Financing

- NCPs are financed by (in order of importance): national governments, regional authorities, private funding, own revenues, EU funding.
- In half of the countries, the NCPs are nearly exclusively funded by the national governments.
- In most of the countries, services provided by NCPs are free of charge.
- In only seven countries do fees have to be paid for some of the services.

Advantages and disadvantages of the current NCP system

Advantages:

- Tailored to national structures and needs
- Can be set up and made operational quickly
- No central “control” from Commission

Disadvantages:

- Variable coverage and quality of services
- Variable levels of national funding
- No standardised quality control of services delivered

Benefits of establishing and maintaining a robust NCP system

Enhanced STI cooperation with the EU

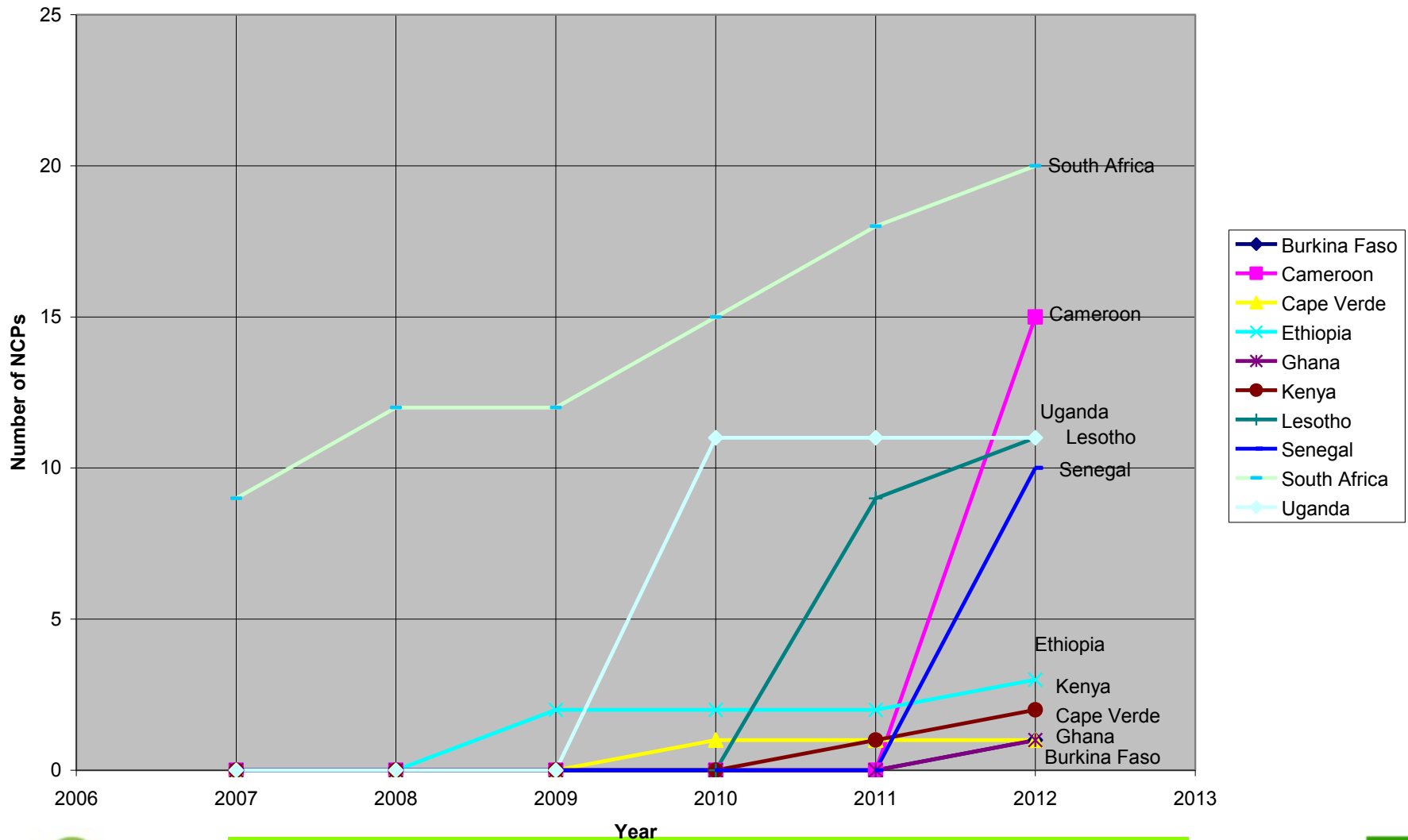
Increased participation through:

- Increased awareness of EU funding instruments (How the EC works)
- Timely and precise information on specific calls
- Technical understanding of requirements
- Support to partner search and networking
- Support with regards to legal and financial administration issues

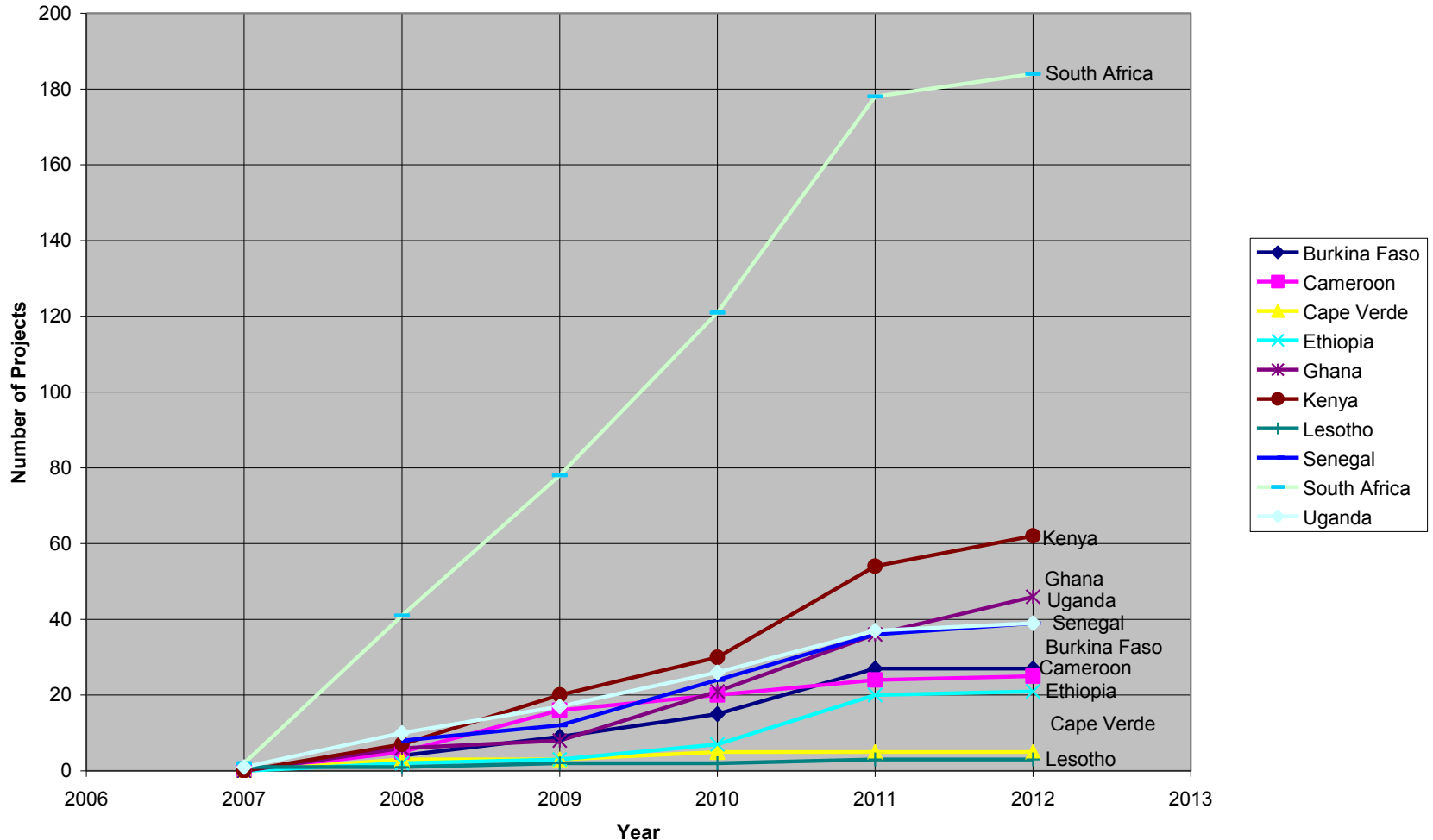
Benefits of establishing and maintaining a robust NCP system

- The NCP network being able to reach the broader country research communities
- Easy identification of pockets of excellence in the country, and proactive alignment with the calls
- Visibility of country excellence in Europe through extended marketing of country expertise during NCP project meetings and brokerage events in EU
- Increased networking and opportunities (institutional or national) identification with counterparts

The 7th Frammework Programme and its achievements: Evolution of sub-Saharan-African NCPs (2007-12)



The 7th Framework Programme and its achievements: Participation of sub-Saharan-African countries with appointed NCPs in FP7 projects by year



NCP system in Horizon 2020

- a) A system of National Contact Points is/will be established for Horizon 2020, building on the experience of previous Framework Programmes

- b) The system of National Contact Points will be established, operated and financed under the responsibility of the Member States and countries associated to the programme

NCP system in Horizon 2020

Mission:

Highly professional support services operating nationally will form an essential component of Horizon 2020 implementation. By spreading awareness, giving specialist advice, and providing on-the-ground guidance, they will ensure that the new programme becomes known and readily accessible to all potential applicants, irrespective of sector or discipline.

NCPs in Horizon 2020

- National NCP Coordinator
- Legal and Financial aspects
- SMEs
- Access to Finance*
- European Research Council
- 'Future and Emerging Technologies';
- 'Marie Curie actions on skills, training and career development';
- 'European research infrastructures;
- 'Information and Communication Technologies (ICT)';
- 'Nanotechnologies, advanced materials and advanced manufacturing and processing';
- 'Space';
- 'Health, demographic change and wellbeing';
- 'Food security, sustainable agriculture, marine and maritime research and the bio-economy'; & 'Biotechnology';
- 'Secure, clean and efficient energy';
- 'Smart, green and integrated transport';
- 'Climate action, resource efficiency and raw materials';
- 'Inclusive, innovative and secure societies';
- Security'
- Joint Research Centre

How to create an NCP system

- The Ministry that would like to host the NCP should write a formal letter of appointment
- The formal letter should be sent through the Ministry of Foreign Affairs of the interested country to
 - the European Commission Delegation of your Country, or if there is no Delegation,
 - directly to the European Commission

Directorate-General for Research and Innovation

European Commission, ORBN 2/65

B-1049 Brussels - Belgium

Basic documents and electronic tools for NCPs

- Minimum standards and guiding principles (document)
 - Key principles and minimum standards
 - Core functions of an NCP
 - Cooperation between NCPs and Commission services
 - Nomination and recognition process
- Participant portal: www.ec.europa.eu/research/participants/portal/
 - Horizon 2020 documents
 - Work Programmes and open calls
 - Participation registration and proposal submission
 - Contract negotiation and reporting
- CORDIS: www.cordis.europa.eu
 - Basic information
 - Partner search and project database
 - Contacts to NCPs
- INCO-Wiki: www.ncp-incontact.eu
 - Information on international cooperation in Horizon 2020

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 – “Health, Demographic Change & Wellbeing” - 2014-15

- 32 topics in the personalizing health and care focus area call;
- 10 topics in the coordination activities call;
- Other small additional topics designed to support the implementation of the challenge;
- Total budget is 1.06 billion euros;
- Key goals - create opportunities for real breakthrough research and radical innovation in health and wellbeing.

Why personalizing Health and Care?

- Ageing of the European population;
- An increasing communicable and non-communicable diseases burden;
- Fall-out from the economic crisis;
- In combination, these factors are jeopardising the sustainability and equity of European health and care systems.

Objectives of 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

Programmes for Particular African Interest

- **PHC 3 - 2015) Health promotion and disease prevention: improved inter-sector co-operation for environment and health based interventions**
- Specific challenge: Better health promotion and disease prevention interventions can make a significant contribution to the sustainability of health and care systems.
- **PHC 4 - 2014) Health promotion and disease prevention: translating ‘omics’ into stratified approaches**
- Specific challenge: How to apply ‘Omics’ research (including genomics, epi-genomics, meta-genomics and proteomics) to health promotion and disease prevention.

Programmes for Particular African Interest

- **PHC 7 - 2014) Vaccine development for poverty-related and neglected infectious diseases: Tuberculosis**
- Specific challenge: Vaccines offer a safe and cost-effective way to protect large populations especially for many poverty-related and neglected infectious diseases. Vaccine development is a big challenge.
- **PHC 12 - 2014) New therapies for chronic non-communicable diseases**
- Specific challenge: While a considerable amount of knowledge has been generated by biomedical research in recent years, the development of new therapies is stagnating, in part due to a lack of clinical validation.

Programmes for Particular African Interest

- **PHC 14 – 2014/15) Clinical research on regenerative medicine**
- Specific challenge: Translating basic knowledge on regenerative medicine into the clinic is held up by the difficulty in undertaking ‘first in man’ studies. Specific research is needed for proving safety, efficacy and repeatability of new treatments.
- **PHC 20 – 2015) Promoting mental wellbeing: in the ageing population**
- Specific challenge: Health and care of the rapidly growing elderly population in Europe (and Africa) poses a number of specific challenges. Among these, the burden posed by mental and neurological conditions on elderly citizens has a significant impact on their quality of life.

Programmes for Particular African Interest

- **PHC 15 – 2015) Tools and technologies for advanced therapies**
- Specific challenge: For their successful application, new therapies, such as gene or cell therapies, tissue engineering or regenerative medicine often require technological innovations.
- **PHC 17 – 2015) Establishing effectiveness of health care interventions in the paediatric population**
- Specific challenge: Knowledge about the overall benefit of healthcare interventions in the paediatric population is currently limited. Effectiveness research in children and adolescents is required which is targeted, designed, conducted, and reported in ways that include clinically important differences in the type and course of disease in children.

Programmes for Particular African Interest

- **PHC 18 – 2014) Advancing active and healthy ageing with ICT: Service robotics within assisted living environments; and ICT solutions for independent living with cognitive impairment**
- Specific challenge: The challenge is to develop new breakthroughs for ICT based assisted living and deploy innovative and user led ICT pilot projects, translating promising results into scalable practice across Europe.
- **PHC 21 - 2014) Developing and comparing new models for safe and efficient, prevention oriented, health and care systems:**
- Specific challenge: Biomedical and behavioural research have provided evidence for new approaches to prevention, primary care and treatment. Their integration into health services requires cooperation across sectors and between stakeholders, and challenges the current boundaries of healthcare and established norms of operation.

Programmes for Particular African Interest

- **PHC 29 - 2014) Foresight for health policy development and regulation**
- Specific challenge: The complex interactions between multiple determinants of health and wellbeing. Adding to the complexity, currently used measures and indicators of health status and quality of life are inadequate to capture the effect of these interactions. Foresight is a powerful tool in providing a systematic and structured approach for defining policy options.
- **PHC 30 – 2014) Advancing bioinformatics to meet biomedical and clinical needs**
- Specific challenge: Recent technological advances in molecular biology and biomedical sciences are resulting in a greatly increased rate of data generation and of many different types of data. The challenge is to promote specific research actions to ensure that bioinformatics capabilities are not only made adequate for the current data challenge but also to meet future biomedical and clinical needs.

Programmes for Particular African Interest

- **HCO 4 – 2014) Support for international infectious disease preparedness research**
- Specific Challenge: Human health worldwide is increasingly threatened by potential epidemics caused by existing, new and emerging infectious diseases (including from antimicrobial resistant pathogens). An infectious epidemic can strike anywhere, and at any time globally. In order to save lives, the research response needs to be quick, flexible, comprehensive and global and therefore beyond the capacity of any single country or even the European Union (EU).
- **HCO 5 -201x) Global Alliance for Chronic Diseases: prevention and treatment of type 2 diabetes**
- Specific challenge: In the past twenty years the global death rate from diabetes has doubled and WHO is predicting that this will increase by two thirds by 2030. It is estimated that 347 million people worldwide suffer from diabetes with more than 80% from low-and middle-income countries. Of these people, type 2 diabetes comprises 90% of the opulation.

Programmes for Particular African Interest

- **Fast track to Innovation – pilot**
- Under this Fast Track to Innovation (FTI) pilot, proposals for innovation actions linked to any technology field will be invited, on the basis of a **continuously** open call (with its first cut-off date in 2015) and a bottom-up-driven logic.
- Any legal entity may participate and proposals may be submitted at any time. The Commission shall initiate three cut-off dates per year to evaluate proposals. No more than 5 legal entities shall participate in an action. The amount of the grant shall not exceed EUR 3 million.
- Proposals shall be ranked according to the impact, quality and efficiency of implementation and excellence, with the criterion of impact given a higher weighting.

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/2014_2015/main/h2020-wp1415-food_en.pdf

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Societal Challenge 2: General Information

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

- Aim to make the best of the biological resources in a sustainable way
- General focus on developing productive and efficient systems, supporting ecosystem services, and strengthening low carbon supply chains
- 2014-2015 focus on sustainable food security, blue growth, and supporting the bioeconomy
- Multi-disciplinary approach useful
- Focus on finding solutions
 - innovation aspect
 - integrating end-users
- All activities **open to third countries**, with specific topics stemming from ongoing international dialogues (**including the EU-Africa dialogue on research and innovation**)

Societal Challenge 2: Food Security

Sustainable Food Security

- This focus area will develop competitive and resource-efficient aquatic and terrestrial food productions systems covering: eco-intensification of production; sustainable management of natural resources, including the accurate valuation of ecosystems services, while addressing climate change mitigation and adaptation; technologies for a sustainable food chain; safe foods and healthy diets for all; and a global food security system.
- 2014-2015 focus on:
 - Sustainable food productions systems
 - Safe food and healthy diets
 - Global drivers of food security

Societal Challenge 2: Food Security / Overview

Topics

SUSTAINABLE FOOD PRODUCTION SYSTEMS

SFS-1-2014/2015. Sustainable terrestrial livestock production

SFS-2-2014/2015. Sustainable crop production

SFS-3-2014. Practical solutions for native and alien pests affecting plants

SFS-4-2014. Soil quality and function

SFS-5-2015. Strategies for crop productivity, stability and quality

SFS-6-2014. Sustainable intensification pathways of agro-food systems in Africa

SFS-7-2014/2015. Genetic resources and agricultural diversity for food security, productivity and resilience

SFS-8-2014/2015. Resource-efficient eco-innovative food production and processing

SFS-9-2014. Towards a gradual elimination of discards in European fisheries

SFS-10-2014/2015. Tackling disease related challenges and threats faced by European farmed aquatic animals

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

Societal Challenge 2: Food Security / Overview

Topics

SAFE FOOD AND HEALTHY DIETS AND SUSTAINABLE CONSUMPTION

SFS-12-2014. Assessing the health risks of combined human exposure to multiple food-related toxic substances

SFS-13-2015. Biological contamination of crops and the food chain

SFS-14-2014/2015. Authentication of food products

SFS-15-2014. Proteins of the future

SFS-16-2015. Tackling malnutrition in the elderly

SFS-17-2014. Innovative solutions for sustainable novel food processing

GLOBAL DRIVERS OF FOOD SECURITY

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

SFS-19-2014. Sustainable food and nutrition security through evidence based EU agro-food policies

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

Societal Challenge 2: Food Security

SFS-2-2014/2015: Sustainable crop production

Call: H2020-SFS-2014-2

Deadline: 12.3.2014

Stage 2: 26.6.2014

Scope: Proposals should address one of the following issues (a) and (b), and should clearly indicate to which one they refer.

- a) **[2014] External nutrient inputs:** Proposals should find innovative and effective strategies to improve the management of external nutrient inputs and water, and optimize their efficiency at a farm level to improve both yield and quality. Novel approaches could include integration of precision farming latest tools and techniques, such as advanced automation, variable rate applications, remote sensing, field and crop sensors, **ICT technologies**, to achieve a comprehensive strategy for optimizing external nutrient inputs and water management in European intensive agriculture and provide significant progress beyond the current state of the art. Novel technologies and approaches should allow reaching improved sustainability in different intensive crop production systems, decreasing negative impacts on the environment and providing better product quality and benefits to human health. In-field demonstration of the proposed technologies on a relevant scale to prove concept feasibility should also be foreseen. Proposals should fall under the concept of 'multi-actor approach'.

...

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-3-2014/2015: Practical solutions for native and alien pests affecting plants

Call: H2020-SFS-2014-2

Deadline: 12.3.2014

Stage 2: 26.6.2014

Scope: Proposals should address one of the following issues (a) and (b), and should clearly indicate to which one they refer.

- a) **[2014] Native and alien pests in agriculture and forestry:** Proposals should address threats for both the agricultural (including horticulture) and forestry sectors. A number of native and/or alien pests and invasive alien species causing (or having high potential to cause) significant economic losses, having a large environmental impact and therefore posing a major threat for Europe, should be tackled. Advanced solutions for pests (including weeds) and invasive alien species prevention and management, utilizing the latest plant health measures and technologies with biological and integrated approaches should be sought. While the center of gravity should be R&D activities, the technical and economic feasibility as well as the industrial relevance of the proposed technologies and mechanisms should be proven through relevant demonstration activities. **In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to include participants established in third countries experiences the same problems (including trade partners).** Involvement of industry (including SMEs) to translate the finding into marketable products or services is required. Active dissemination towards end-users is expected. Proposals should fall under the concept of 'multi-actor approach'.

...

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-5-2014/2015: Strategies for crop productivity, stability and quality

Call: H2020-SFS-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

Scope: Proposals should propose smart approaches and tools to improve identification, prediction and introduction of useful genetic variation in crops, as well as favorable combinations of genotypes and management practices in a range of environments. They should tackle crop improvement in a holistic manner, and seek for novel breeding targets to improve yield, yield stability, quality, biotic/abiotic stress tolerance/resistance and environmental benefits. Activities and results should feed into breeding programmes as well as help diversifying and optimizing crop management at different stages of plant development. **In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to include participants established in third countries.** Proposals should fall under the concept of 'multi-actor' approach and allow for adequate involvement of the farming sector in proposed activities. **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.**

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-6-2014/2015: Sustainable intensification pathways of agro-food systems in Africa

Call: H2020-SFS-2014-1

Deadline: 26.6.2014

Scope: Proposals should develop further the concept and approach expected to be implemented in the partnership. Feasibility, strategic priorities and action plan should be developed taking full account of present and emerging initiatives at national, EU, **African** (e.g. CAADP and the forthcoming Science Agenda for Agriculture in Africa) and global level so as to maximize complementarities and synergies. Furthermore, in addition to technological and economic factors, the strategic action plan should also take anthropological and cultural aspects into account. **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 ensure commitment and participation of a variety of concerned partners established in the EU and in Africa.**

> Coordination and support actions

Societal Challenge 2: Food Security

SFS-7-2014/2015: Genetic resources and agricultural diversity for food security, productivity and resilience

Call: H2020-SFS-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

Scope: Proposals should address one of the following issues (a) or (b), and should clearly indicate to which one they refer.

...

- b) **[2015] Management and sustainable use of genetic resources:** Proposals should implement comprehensive actions to improve the status and use of (in particular European) ex-situ and in-situ genetic collections. More specifically, they should support acquisition, conservation, characterization/evaluation and especially the use of specific genetic resources in breeding, farming and forestry activities. Furthermore, proposals should undertake broader dissemination and awareness raising activities. In doing so, they should closely liaise with relevant on-going initiatives e.g. seeking to harmonize, rationalize, and improve management of existing collections and databases. **In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to include participants established in third countries. 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.** Proposals should address crop, forest and/or livestock genetic resources.

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-13-2015: Biological contamination of crops and the food chain

Call: H2020-SFS-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

Scope: Proposals should aim at reducing the risk of mycotoxin contamination in crops and all along the feed and food chains. They should bring about technical, management and organizational solutions (including HACCP techniques) that are effective at the various stages of production as well as at pre- and post-harvest levels and also deal with the safe use of contaminated batches. **Proposals should take into account the development of ICT solutions** as well as reliable and cost effective control tools to policy-proposed solutions. Proposals should benefit conventional and organic supply chains and fall under the concept of ‘multi-actor approach’ and allow for adequate involvement of the farming sector in proposed activities. 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-China dialogue, **proposals are encouraged to include third country participants**, especially those established in China.

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-14-2014/2015: Authentication of food products

Call: H2020-SFS-2014-2

Deadline: 12.3.2014

Stage 2: 26.6.2014

Scope: Proposals should address one of the following issues (a) or (b), and should clearly indicate to which one they refer.

- a) **[2014] Authentication of olive oil:** Proposals should evaluate fraud vulnerability in the olive oil sector and develop, validate and harmonize methods and analytical protocols to detect undesired processing (e.g. deodorization), adulteration and to verify the quality of olive oil based on novel technological advances. Proposals should explore the establishment of a databank for olive oil and should contribute to standardization. **In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to include participants not only from EU producer and consumer Member States, but also from third countries.**

...

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-15-2014: Proteins of the future

Call: H2020-SFS-2014-2

Deadline: 12.3.2014

Stage 2: 26.6.2014

Scope: A multidisciplinary approach, covering the whole food supply chain (from production to consumption) of new and/or existing protein sources should be taken. The market potential for the producer and added value for the consumer should be considered, together with food safety and quality parameters, regulatory issues, health and diet-related risks and benefits (including gendered safety tests), and gender issues. Appropriate dissemination and knowledge uptake activities should be included, as well as industry participation with a specific focus on SMEs. **In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to include participants established in third countries.** A sustainability assessment in line with the ILCD handbook should be conducted. Proposals should be focused on how new and/or adapted protein sources can provide innovative, cost-effective and resource-efficient alternatives to traditional sources, with more positive impacts on human health, the environment and biodiversity.

> Research and innovation actions

Societal Challenge 2: Food Security

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

Call: H2020-SFS-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

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 fiber 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 roles 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.**

> Research and innovation actions

Societal Challenge 2: Food Security

SFS-19-2014: Sustainable food and nutrition security through evidence based EU agro-food policies

Call: H2020-SFS-2014-2

Deadline: 12.3.2014

Stage 2: 26.6.2014

Scope: Proposals should address one of the following issues (a) or (b), and should clearly indicate to which one they refer.

...

- b) **[2014] Understanding relevant issues impacting the agro-food sector:** Specific analyses should address the following issues: 1) potential role of financial markets on commodity price formation and their potential benefits for farmers (including the conditions for access of farmers) for risk management; 2) Conditions of farmers' access to credit especially young farmers, in context of economic uncertainty and increasing capital intensity of production; 3) Mapping the web of policy requirements applicable to farmers at EU, national and regional levels and developing tools to assess their implications on farming across the EU, **including an extensive review and comparison of agro-food standards in the EU and important third countries** and assessment of their impacts on cost and competitiveness or on access to markets; 4) developing approaches to better take account of the functioning of the food supply chain, measuring implications of unfair business practices along the chain and developing solutions to address discrepancies, **including the potential role of ICT to increase market transparency.**

> Research and innovation actions

Societal Challenge 2: Food Security

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

Call: H2020-SFS-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

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 provisions 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 utilized 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.**

>Research and Innovation actions

Societal Challenge 2: Blue Growth

Blue Growth: Unlocking the Potential of Seas and Oceans

- Aim is to improve the understanding of the complex interrelations between various maritime activities, technologies, including space enabled applications, and the marine environment to help boost the marine and maritime economy by accelerating its potential through R&I
- 2014-2015 focus on:
 - Sustainable exploitation of the diversity of marine life
 - New offshore challenges
 - Ocean observation systems/technologies
 - Horizontal activities
- International cooperation supporting the new Atlantic Ocean Cooperation Research Alliance

Societal Challenge 2: Blue Growth / Overview

Topics

SUSTAINABLY EXPLOITING THE DIVERSITY OF MARINE LIFE

BG-1-2015. Improving the preservation and sustainable exploitation of Atlantic marine ecosystems

BG-2-2015. Forecasting and anticipating effects of climate change on fisheries and aquaculture

BG-3-2014. Novel marine derived biomolecules and industrial biomaterials

BG-4-2014. Enhancing the industrial exploitation potential of marine-derived enzymes

NEW OFFSHORE CHALLENGES

BG-5-2014. Preparing for the future innovative offshore economy

BG-6-2014. Delivering the sub-sea technologies for new services at sea

BG-7-2015. Response capacities to oil spills and marine pollutions

OCEAN OBSERVATION TECHNOLOGIES/SYSTEMS

BG-8-2014. Developing in-situ Atlantic Ocean Observations for a better management and sustainable exploitation of the maritime resources

BG-9-2014. Acoustic and imaging technologies

Societal Challenge 2: Blue Growth / Overview

Topics

HORIZONTAL ASPECTS, SOCIO-ECONOMIC SCIENCES, INNOVATION, ENGAGEMENT WITH SOCIETY, AND OCEAN GOVERNANCE ACROSS THE BLUE GROWTH FOCUS AREA

BG-10-2014. Consolidating the economic sustainability and competitiveness of European fisheries and aquaculture sectors to reap the potential of seafood markets

BG-11-2014. Monitoring, dissemination and uptake of marine and maritime research

BG-12-2014/2015. Supporting SMEs efforts for the development – deployment and market replication of innovative solutions for blue growth

BG-13-2014. Ocean literacy – Engaging with society – Social innovation

BG-14-2014. Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance

BG-15-2014. European polar research cooperation

BG-16-2015. Coordination action in support of the implementation of the Joint Programming Initiative on 'Healthy and Productive Seas and Oceans'

Societal Challenge 2: Blue Growth

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

Call: H2020-BG-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

Scope: Proposals should fill in knowledge gaps to deepen the understanding of the biogeographic patterns, biodiversity, biogeochemistry, and ecosystem services and goods supported by different marine ecosystems at ocean basin and management relevant scales and the capacity to model, understand and predict shifts in the dynamics of North Atlantic ecosystems, thereby supporting preservation and unlocking the potential for the sustainable productions of new products and industrial application. Decision support tools and methodologies should be developed to support adaptive (ecosystem based) management approaches enabling good governance of the North Atlantic marine ecosystem by the bordering countries so as to secure the sustainable exploitation of the living resources whilst ensuring its preservation. The work may draw upon related research expertise that has been developed within other sea basins. Proposals should also develop genuinely cross-disciplinary, integrated, systemic approaches – including the socio-economic dimension, as well as the engagement of the broader stakeholder communities. In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals should contribute to implementing the Transatlantic Research Alliance, launched by the Galway Statement on Atlantic Ocean Cooperation in May 2013, and should benefit from the inclusion of partners from the USA and Canada. **Cooperation is also encouraged with other international partners.**

> Research and innovation actions

Societal Challenge 2: Blue Growth

BG-8-2014: Developing in-situ Atlantic Ocean Observations for a better management and sustainable exploitation of the maritime resources

Call: H2020-BG-2014-2

Deadline: 12.3.2014

Stage 2: 26.6.2014

Scope: The Integrated Atlantic Ocean Observing System initiative should cover the whole Atlantic with the objective to deliver the knowledge base supporting the understanding of the Ocean Process at the level of the entire basin. Another focus of proposals should be to fill the observational gaps regarding the in-situ part of the Integrated Atlantic Ocean Observing System including through the optimization of existing systems and the use of new ocean observation technologies enabling reducing the costs of in-situ ocean observation and integration of the biological dimension into observing systems. The research and innovation necessary to underpin the full and open discover and access to the ocean observations and facilitating the interoperable exchange of ocean observations as promoted through GEO (Group on Earth Observation) at the scale of the Atlantic Ocean should **require the participation of international partners from both sides of the Atlantic**. In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals should contribute to implementing the Transatlantic Research Alliance, launched by the Galway Statement on Atlantic Ocean Cooperation in May 2013, and should benefit from the inclusion of partners from the USA and Canada.

> Research and innovation actions

Societal Challenge 2: Blue Growth

BG-13-2014: Ocean literacy – Engaging with society – Social Innovation

Call: H2020-BG-2014-1

Deadline: 26.6.2014

Scope: Proposals should focus on compiling existing knowledge in the broad area of Seas and Ocean Health (environmental status, pollution affecting marine biodiversity and ecosystems, ecosystem services). Attention will be paid to the impact this has on citizens, including on Human Health. Information collected should be turned into communication material, to be used for dissemination and engagement with societal stakeholders and public at large, e.g. via schools, aquaria, maritime and science museums. Ocean literacy in the EU should be promoted in a traditional or in a proactive mutual learning way by engaging with citizens as responsible actors of change in marine challenges. **In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals should benefit from the inclusion of partners established in third countries**, in particular the US and Canada, given the high potential for knowledge sharing in this field.

> Coordination and support actions

Societal Challenge 2: Blue Growth

BG-14-2014: Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance

Call: H2020-BG-2014-1 Deadline: 26.6.2014

Scope: In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals should contribute to implementing the Transatlantic Research Alliance, launched by the Galway Statement on Atlantic Ocean Cooperation in May 2013, and should benefit from the inclusion of partners from the US and Canada. Proposals should underpin the establishment and implementation of the Atlantic Ocean Cooperation between the EU, its Member States and partner countries joining transatlantic research alliance as well as building on existing initiatives and programmes to increase coherence and coordination of ocean research cooperation programmes.

Proposals should address the following priority areas in an integrated way, identified in the Galway Statement: (i) Marine ecosystem-approach, (ii) Observing systems, (iii) Aquaculture, (iv) Ocean literacy – engaging with society, (v) seabed and benthic habitat mapping.

Within these priority areas, proposals should facilitate the mapping and connectivity of relevant on-going research activities and programmes in the Atlantic and the identification of research gaps. Proposals should also consider ongoing work to create a European Marine Observation and Data Network (EMODnet). Proposals should contribute to aligning the planning and programming of research activities, in view of launching joint Research & Innovation initiatives, while building on existing ones (e.g. Joint Programming Initiative “Healthy and Productive Seas and Oceans”, marine ERA-NETs (e.g. Seas-Era) and also national and multilateral initiatives). Proposals should facilitate a shared use of infrastructures, as well as dissemination and knowledge transfer activities leading to an optimal exploitation of projects results, fostering mobility and networking of researchers.

Societal Challenge 2: Blue Growth

Scope (continued):

Proposals should also establish a long-term knowledge sharing platform (existing knowledge or to be generated), in the areas mentioned above, to allow for long-term usability of the data, information and knowledge thereby ensuring tangible value creation from invested resources. This platform should comprise a classification system, which allows for an easy, focused, quick and reliable use and analysis of the information collected and stored. The principle of open access would need to govern such a platform. To enhance the exploitability of the platform for policy making and stakeholder consultation purposes, representatives from funding agencies and these communities should be consulted in their design. Options to secure the long-term viability of this platform should be included in the proposal. Cooperation is as well encouraged with partners established in other third countries (e.g. Brazil).

> Coordination and support actions

Societal Challenge 2: Blue Growth

BG-16-2015: Coordination action in support of the implementation of the Joint Programming Initiative on 'Healthy and Productive Seas and Oceans'

Call: H2020-BG-2015-1

Deadline: 11.6.2015

Scope: Proposals should build on the outcomes of the CSA Oceans project in support to the implementation of the Strategic Research and Innovation Agenda (SRIA) of JPI Oceans and in ensuring further alignment and convergence of national Research and Innovation activities and investments on marine research in line with the European Commission Recommendation of 2011. In this context, proposals should provide support for the designing and implementation of new transnational joint activities including joint calls if appropriate and using the most suitable and effective methods and tools for collaboration such as those proposed by the 'Voluntary guidelines on Framework Conditions', adopted by the High level Group on Joint Programming. These new joint actions, in interface with other initiatives, should focus on relevant issues and grand challenges identified in the JPI Oceans' implementation plan and provide support to key marine and maritime related EU policies and strategies.

Proposals should be used to establish and consolidate an operational network of marine and maritime researcher funders and other key players in Europe, with a view to ensure alignment of national research agendas and actions implemented in the framework of other initiatives such as marine ERA-Nets (e.g. Seas-Era) and Article 185 initiatives (e.g. Bonus 'Joint Baltic Sea Research Programme').

Cooperation between relevant EU marine research institutes should be further stimulated for better coordination in the collection of marine data, the use of sharing of marine research infrastructures of transnational interest. Proposals should also include measures supporting other ERA priorities such as improving researchers' mobility and training. The international dimension of JPI Oceans should be further elaborated where appropriate and where there is added value, in order to achieve greater coherence at sea-basin and international level.

> Coordination and support actions

Societal Challenge 2: Bioeconomy

Innovative, Sustainable and Inclusive Bioeconomy

- Aim to support sustainable agriculture and forestry management processes providing public goods and innovative products for sustainable growth; foster innovation (including social innovation) in rural areas for inclusive growth; and enhance innovation in the bio-based industry for smart growth
- Activities complimentary to the activities supported under the two Focus areas 'Sustainable Food Security' and 'Blue Growth'

Societal Challenge 2: Bioeconomy / Overview

Topics

SUSTAINABLE AGRICULTURE AND FORESTRY

ISIB-1-2014. Provision of public goods by EU agriculture and forestry: Putting the concept into practice

ISIB-2-2014/2015. Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange

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

ISIB-4-2014/2015. Improved data and management models for sustainable forestry

SUSTAINABLE AND COMPETITIVE BIO-BASED INDUSTRIES

ISIB-5-2014. Renewable oil crops as a source of bio-based products

ISIB-6-2015. Converting CO₂ into chemicals

ISIB-7-2014. Public procurement networks on innovative bio-based products

Societal Challenge 2: Bioeconomy / Overview

Topics

CROSS-CUTTING ACTIONS COVERING ALL ACTIVITIES

ISIB-8-2014. Towards an innovative and responsible bioeconomy

ISIB-9-2014. Supporting National Contact Points for Horizon 2020 Societal Challenge 2 on 'Food Security, Sustainable Agriculture, Marine and Maritime Research and the Bioeconomy' and the Key Enabling Technology (KET) 'Biotechnology'

ISIB-10-2014. Networking of Bioeconomy relevant ERA-NETs

ISIB-11-2014. Coordination action in support of the implementation by participating States of a Joint Programming Initiative on Agriculture, Food Security and Climate Change

ISIB-12-2015. Public-Public Partnerships in the bioeconomy

Societal Challenge 2: Bioeconomy

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

Call: H2020-ISIB-2015-2

Deadline: 24.2.2015

Stage 2: 11.6.2015

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.**

> Coordination and support actions

Societal Challenge 2: Bioeconomy

ISIB-9-2014: Supporting National Contact Points for Horizon 2020 Societal Challenge 2 on 'Food Security, Sustainable Agriculture, Marine and Maritime Research and the Bioeconomy' and the Key Enabling Technology (KET) 'Biotechnology'

Call: H2020-ISIB-2014-1 Deadline: 26.6.2014

Scope: Support should be given to a consortium of formally nominated NCPs in the areas of Societal Challenge 2 and the KET 'Biotechnology'. The activities should be tailored according to the nature of the area, and the priorities of the NCPs concerned. Various mechanisms may be included, such as benchmarking, joint workshops, enhanced cross-border brokerage events, specific training linked to Societal Challenge 2 and the KET 'Biotechnology' as well as to gender dimension of Research and Innovation, and twinning schemes. Special attention should be given to enhance the competence of NCPs, including helping less experienced NCPs rapidly acquire the know-how accumulated in other countries.

The focus throughout should be on issues specific to Societal Challenge 2 and the KET Biotechnology and should not duplicate actions foreseen in the NCP network for quality standards and horizontal issues under 'Science with and for Society'.

From EU Member States and Associated Countries, only NCPs who have been officially appointed by the relevant national authorities are eligible to participate in and receive funding for this action. **In line with the objectives of the EU strategy for international cooperation in research and innovation, participation of NCPs from third countries is welcome.**

The consortium should have a good representation of experienced and less experienced NCPs.

Submission of a single proposal is encouraged. NCPs from EU Member States or Associated Countries choosing not to participate as a member of the consortium should be identified and the reason explained in the proposal. These NCPs are nevertheless invited and encouraged to participate in the project activities (e.g. workshops), and the costs incurred by the consortium for such participation. (e.g. travel costs paid by the consortium) may be included in the estimated budget and be eligible for funding by the Commission.

> Coordination and support actions

Societal Challenge 2: Bioeconomy

ISIB-11-2014: Coordination action in support of the implementation by participating States of a Joint Programming Initiative on Agriculture, Food Security and Climate Change

Call: H2020-ISIB-2014-1

Deadline: 26.6.2014

Scope: Proposals should build on the results expected by the coordination action in support to the FACCE JPI in the implementation of the Strategic Research Agenda (SRA) and Implementation Plan using effective and efficient methods of collaboration such as those proposed by the 'Voluntary guidelines on Framework Conditions, adopted by the High Level Group on Joint Programming. To carry out activities foreseen in the Implementation Plan, current efforts should be assessed to provide information on Member State implication and to favor the alignment of these activities to the JPI's SRA. Moreover, proposals should support in harmonization, integration, and alignment of national research programming, to enable evidence-based policy making and effective cross-policy actions, investigate novel forms of implantation of SRA such as synchronized calls. **Finally, they should further strengthen the international dimension of the JPI to be addressed by ensuring coherence with other relevant international initiatives. In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to consider cooperation with related programmes from third countries.**

> Coordination and support actions

Societal Challenge 2: Bioeconomy

ISIB-12-2015: Public-Public Partnerships in the bioeconomy

Call: H2020-ISIB-2014-1 & H2020-ISIB-2015-1 Deadline: 26.6.2014 & 11.6.2015

Scope: Proposals should address one of the following issues and should clearly indicate to which one they refer:

- a. [2014] Sustainable and resilient agriculture for food and non-food systems: The resilience of regional agricultural systems in Europe, in particular to climate variability and to price volatility (prices of energy, agricultural inputs and agricultural commodities) and its need to be increased taking into account both food and non-food uses of biomass and the integration of production systems (use of by and co-products, recycling of waste, intercropping, etc...) within regions. Issues like greenhouse gas mitigation, fossil fuel substitution and indirect impacts including on land use, farmers and industry strategies deserve attention.
- b. [2015] Rural Development: Supporting rural development initiatives, with a view to promoting viable innovations in European regions; to ensure cohesion of rural areas and prevent economic and social marginalization, foster diversification of economic activities (including the service sector), ensure appropriate relations between rural and urban areas.
- c. [2015] Monitoring and mitigation of agricultural and forestry greenhouse gases (GHG): Monitoring and mitigation of agricultural GHG, including such aspects as reducing uncertainties and improving national agricultural GHG inventories (e.g. with ICOS), the role of climatic variability and agricultural and forestry practices for GHG emissions, the technical and economic potential of CH₄ and N₂O mitigation, carbon sequestration and reduced emissions from energy use and pre-chain inputs, emissions/removals certification, economic and policy measures, including trade, barriers to implementation, life cycle assessment.
- d. [2015] Sustainable crop production: Sustainable crop production, including such areas as breeding, nutrients recycling and soil-plant-atmosphere interactions, plant health and protection, management practices and added value of the products.
- e. [2015] Sustainable livestock production: Sustainable livestock production, including animal health and welfare, but also in areas like breeding, nutrition and production systems.

Societal Challenge 2: Bioeconomy

Scope (continued):

- f. [2015] Biomarkers for nutrition and health: Development and validation of biomarkers for nutrition and health, including biomarkers for food intake and for the risk of diet-related disease.

The main objective of these ERA-NETs is to pool the necessary financial resources from the participating national (or regional) research programmes and the EU and to implement joint trans-national calls with EU co-funding in the above areas (one co-funded call per grant agreement, resulting in grants to third parties). Thematic focusing of these calls should be commensurate with the funds available, so as to ensure a reasonable rate of success in the call. The ERA-NETs should seek synergies with other relevant European and international research and innovation initiatives affecting sustainability and resilience of agricultural and food systems, in particular with FACCE and HDHL Joint Initiatives. In line with the objectives of the EU strategy for international cooperation in research and innovation, proposals are encouraged to consider international cooperation, and the ERA-NETs should be open to participation by third countries national programmes.

The proposals should also aim at implementing other joint activities including additional joint calls without EU co-funding.

> ERA-NET Cofund

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

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

caast-net-plus.org

Building Bi-regional Partnerships for Global Challenges



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Societal Challenge 5: General Information

Climate action, resource efficiency and raw materials

- Objective is to achieve an economy & society which lives within the sustainable limits of the planet's natural resources
- Focus on investing in innovation for a green economy
- Actions will:
 - Address gaps in the knowledge base
 - Identifying policies, methods, & tools to tackle challenges
- 2014-2015 focus on Water, Waste, and Growing a low carbon, resource efficient economy with a sustainable supply of raw materials

Societal Challenge 5: Waste

Waste: A resource to Recycle, Reuse and Recover Raw Materials

- Towards a near-zero waste society – to boost innovative, environmentally-friendly and cross-sectoral **waste prevention & management solutions**
- Activities address the whole production & consumption cycle
- Specific challenges in the areas of food, agricultural and construction waste

Societal Challenge 5: Waste / Overview

Topics

WASTE-1-2014. Moving towards a circular economy through industrial symbiosis

WASTE-2-2014. A systems approach for the reduction, recycling and reuse of food waste

WASTE-3-2014. Recycling of raw materials from products and buildings

WASTE-4-2014/2015. Towards near-zero waste at European and global level

WASTE-5-2014. Preparing and promoting innovation procurement for resource efficiency

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

WASTE-7-2015. Ensuring sustainable use of agricultural waste, co-products and by-products

Societal Challenge 5: Waste

WASTE-1-2014: Moving towards a circular economy through industrial symbiosis

Call: H2020-WASTE-2014-two-stage Deadline: 8.4.2014 Stage 2: 16.9.2014

Scope: Proposals should aim to demonstrate and analyze, with life cycle perspective, innovative processes and services, including organizational and management systems and business models, or a combination thereof, that increase product life-spans, enable product and material reuse, recycling, recovery, with an upgrading cascading approach for recovered materials and products, and reduce generation of waste along product chains as well as reduce feedstock materials and the emission of harmful substances. Proposals may also address design for repairability and recyclability, and should either focus on a specific production value chain, or have a cross-sectoral approach and establishing industrial symbiosis leading to closed-loop processes, or combine both.

Proposals should give a significant role could be given to SMEs, as far as possible. Opportunities for social innovation, encouraging more sustainable consumption behavior and lifestyle change, and involving civil society, should be considered, with appropriate attention to the gender dimension and to the barriers to raising awareness of eco-innovative solutions and their market, household and community penetration.

Systematic and cost-effective solutions will benefit from innovative **ICT solutions** for waste traceability, waste material flow management, and the estimation of the availability, composition and quality of waste.

> Innovation actions.

Societal Challenge 5: Waste

WASTE-2-2014. A systems approach for the reduction, recycling and reuse of food waste

Call: H2020-WASTE-2014-two-stage Deadline: 8.4.2014 Stage 2: 16.9.2014

Scope: Proposals should both address approaches to reducing food waste and packaging materials generated at relevant stages of the food system and investigate ways of converting food waste into value-added by-products. A comprehensive methodology for evaluating food waste in all its components will be developed addressing quality, safety, sustainability, legislation and costs. Inter-disciplinary research methods include practical, close-to-market approaches for characterizing possible new foods and feeds and identifying the risks and benefits related to the new production processes. A database/inventory should be developed of recyclable materials, valuable molecules, substances and materials originating from waste and by-products, also in view of future life cycle assessments (LCAs). Solid involvement of social sciences and humanities and civil society is a prerequisite to better understand the socio-economic, cultural and environmental dimension of food waste and promote change in the business and consumer environment for social innovation, while the **use of ICT tools** is expected to accelerate this. In line with the objectives of the EU's strategy for international cooperation in research and innovation and in particular with the implementation of the EU-China dialogue, **proposals are encouraged to include third country participants**, especially those established in China.

> Research and innovation actions

Societal Challenge 5: Waste

WASTE-4-2014/2015. Towards near-zero waste at European and global level

Call: H2020-WASTE-2014-one-stage & H2020-WASTE-2015-one-stage

Deadline: 8.4.2014 & 10.3.2015

Scope: Actions should address one of the following issues:

- a. **[2014] A European near-zero waste stakeholder platform:** Creation of a stakeholder platform for defining an integrated strategic research and innovation agenda, including systemic eco-innovation and business models, for waste prevention and management in the EU, defining areas of waste technologies to be clustered, and proposing actions for strengthening links between research funding programmes across the EU. Synergies with relevant EU initiatives on waste should be considered. Roadmaps addressing specific waste streams, **including the electronic waste coming from the ICT sector**, should be developed. Proposals should help foster synergies between relevant stakeholders and value chains while identifying new market opportunities. They should provide for participatory and proactive social engagement of citizens and education as well as gender balance and sensitivity specific issues.
- b. **[2014] Global waste dimension:** Development of a strategy for **global dissemination and uptake** of European waste management best practices, benchmarks and standards, thereby raising awareness on behavioral, social, political, cultural and institutional aspects in solid waste management, and paving the way to new market opportunities. In line with the EU's strategy for international cooperation in research and innovation actions will **contribute to the commitments of Rio+20 and UNEP's Global Partnership on Waste Management** and will follow up on the on-going international activities such as the **EU-Africa pilot project on waste, aiming at developing a roadmap of potential joint European-African research and innovation actions, including knowledge transfer in the field of waste management.**

(continued)

Societal Challenge 5: Waste

Continued:

- c. **[2014] Secondary raw materials inventory:** Establishment of an EU network for enhancing knowledge in order to improve the sustainable supply of raw materials through a secondary raw materials inventory component of an EU knowledge base with data and information on secondary raw materials and their materials flows, maps and evaluation of European stocks of raw materials, in particular critical raw materials. It should improve data collection on secondary raw materials at national and regional level in the EU and subsequent access to data, including the need for additional EU-wide waste statistics. Compatibility with relevant EU or global standards and interoperability with national databases and other relevant databases (e.g. from FP7 projects) should be ensured. If appropriate, the development of new standards should be examined.
- d. **[2015] Raw materials partnerships:** Creation of a common multi-stakeholder platform focused on a limited number of key raw materials across their whole value chain. **This should involve partners from across the value chain**, including mining, processing, recycling, application, public sectors (national/regional/local) and civil society, while respecting the conditions of each value chain.

> Coordination Action

Societal Challenge 5: Water

Water Innovation: Boosting its value for Europe

- Aim is to seize market opportunities by positioning Europe as a global market leader in water related innovative solutions
- Synergies with other sectors (including ICT) may generate larger returns
- Activities address integrated approaches to water and climate change; bringing innovative water solutions to the market; and harnessing water research and innovation results for the benefit of industry, policy makers and citizens in Europe and globally

Societal Challenge 5: Water / Overview

Topics

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

WATER-2-2014/2015. Integrated Approaches to water and climate change

WATER-3-2014/2015. Stepping up EU research and innovation cooperation the water area

WATER-4-2014/2015. Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens

WATER-5-2014/2015. Strengthening international R&I cooperation in the field of water

Societal Challenge 5: Water

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

Call: H2020-WATER-2014-two-stage & H2020-WATER-2015-two-stage

Deadline: 8.4.2014 & 16.10.2014 Stage 2: 16.9.2014 & 10.3.2015

Scope: Proposals should address one of the following :

- a. **[2014]**: First application and market replication of near-market water solutions, addressing the thematic priorities identified in the EIP on water;
- b. **[2015]**: Demonstration/pilot activities of new or improved innovative water solutions in a real environment, with a focus on the cross cutting priorities identified in the EIP on water, while addressing the thematic priorities.

Proposals may also aim to help process industries become less water dependent while ensuring efficient management of other resources (e.g. raw materials and energy), **and/or exploiting untapped potential of ICT by developing and deploying advanced ICT solutions for water resources management in agriculture and urban areas.**

Complex issues should be addressed with innovative, creative solutions with a globally positive environment impact demonstrated by life cycle analysis. Social, institutional, economic and governance aspects ensuring a more rapid uptake of solutions as well as aspects affecting market deployment and uptake, such as, standardization and regulatory issues, market assessment and business plan, should be considered where appropriate. Proposals should include the participation of SMEs, as far as possible.

> Innovation actions

Societal Challenge 5: Water

WATER-4-2014/2015. Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens

Call: H2020-WATER-2014-one-stage & H2020-WATER-2015-one-stage

Deadline: 8.4.2014 & 10.3.2015

Proposals should aim to address only one of the following issues:

- a. [2014] **Promote the dissemination and exploitation, ICT, knowledge, gaps, research needs, etc.**
 - Promote the dissemination and exploitation of EU funded activities, **including relevant ICT-based tools and platforms and their integration for market leadership in many fragmented areas**, develop appropriate policy briefs, and foster knowledge sharing and continuous benchmarking across the EU to ensure wider application of innovative solutions and further demonstrate their potential to solve water-related challenges, including through river basin networks and River Basin Districts; or
 - Take stock of existing practical and scientific knowledge in the various sectors and identify research gaps with a view to avoiding overlaps between key regional, national, European and international activities, taking into account the implementation of the WFD; or
 - Promote water-related innovation and business development, help cluster eco-innovative companies and develop innovative financial instruments; or
 - Develop a coordinated approach to the integration of the water and waste sectors in the ‘Smart Cities and Communities’ European Innovation Partnership, identifying research and innovation needs which could lead to future actions, promoting exchange of best practice between public authorities and stakeholders involved, and increase preparedness and planning capacities of all the relevant actors.

Societal Challenge 5: Water

Scope (continued):

b) [2015] **Water management solutions for agricultural sector, thematic networks**

- Implement measures to showcase, exchange, test and transfer water management solutions to end-users in the agricultural sector in view of improving water use efficiency and quality in agricultural practices. Activities should benefit various types of agriculture and pedo-climatic zones;
- Contribute to a ‘thematic network’ on water in agriculture with a broad involvement of practitioners and other stakeholders throughout Europe to compile, disseminate and further develop solutions; and
- Support the integration of water relevant issues in the EIP on ‘Agricultural Productivity and Sustainability’, including linking up with EIP operational groups and related actions of the EIP on ‘Water’.

> Coordination and support actions

Societal Challenge 5: Water

WATER-5-2014/2015. Strengthening international R&I cooperation in the field of water

Call: H2020-WATER-2014-one-stage & H2020-WATER-2015-one-stage & H2020-WATER-2015-two-stage

Deadline: 8.4.2014 & 10.3.2015 & 16.10.2014 2 Stage: 10.3.2015

Scope: Proposals should address one of the following issues:

- a. **[2014] Strategic cooperation partnerships** for water research and innovation between Europe and **the rest of the world**, promoting the creation of networks of companies (including SMEs), entrepreneurs, not for profit organizations, policy makers, regulators and funding bodies to create business and social opportunities. In line with the EU's strategy for international cooperation in research and innovation **proposals contributing to implementing on-going international activities and partnerships where the EU MS are jointly committed to providing a more coherent approach to research and innovation** (e.g. EU/MS-India research and innovation partnership on water, China-Europe Water Platform) **that aim at establishing a shared strategic research and innovation agenda will be given priority.**
- b. **[2015] A coordination platform** for scientists, decision makers, practitioners and **other key stakeholders representing a number of African countries** throughout the duration of Horizon 2020 to identify opportunities and constraints for the sustainable management of water and other natural resources and ecosystems and **for the development of cost-effective climate change adaptation and mitigation measures in Africa.**

Societal Challenge 5: Water

Scope (continued):

- c. **[2015] Development of water supply and sanitation technology, systems and tools, and/or methodologies** to manage risks associated with water supply and sanitation and cross-boundary water management issues, or integrated water resources management systems for sustainable agriculture and food security, sustainable environment protection and economic growth, **focused on the non-EU Mediterranean countries and Africa**. Proposals should connect to local knowledge, socio-economic development cultures, policy institutions and implementing bodies, and take into account the gender dimension where relevant. In line with the EU's strategy for international cooperation in research and innovation international cooperation is encouraged, in particular with non-EU Mediterranean countries and Africa. Proposals should include participation of organizations from the above-mentioned regions.

> Research and Innovation actions & Coordination and support actions

Societal Challenge 5: Raw Materials

Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

- Aim is to support businesses in developing and bringing to the market eco-innovative solutions and to encourage their take-up; to improve our understanding of the complex interactions within, across and between ecosystems and the different elements driving changes in the environment, in order to better tackle these challenges and to use available knowledge; and to bring together and better coordinate research and innovation actions within Europe and beyond.
- Activities are foreseen at the **EU level and beyond**, also supporting relevant **international** efforts and initiatives.

Societal Challenge 5: Raw Materials/Overview

Topics

FIGHTING AND ADAPTING TO CLIMATE CHANGE

SC-5-1 and SC5-2-2014/2015. Climate Services for Europe and globally

SC5-1-2014. Advanced Earth-system models

SC5-2-2015. ERA for Climate Services

SC5-3-2014. The economics of climate change and linkages with sustainable development

SC5-4-2015. Improving the air quality and reducing the carbon footprint of European cities

SC5-5-2014/2015. Coordinating and supporting research and innovation for climate action

PROTECTING THE ENVIRONMENT, SUSTAINABLY MANAGING NATURAL RESOURCES, WATER, BIODIVERSITY AND ECOSYSTEMS

SC5-6-2014. Biodiversity and ecosystem services: drivers of change and causalities

SC5-7-2015. More effective ecosystem restoration in the EU

SC5-8-2014. Preparing and promoting innovation procurement for soil decontamination

SC5-9-2014. Consolidating the European Research Area on biodiversity and ecosystem services

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

Societal Challenge 5: Raw Materials / Overview

Topics

ENSURING THE SUSTAINABLE SUPPLY OF NON-ENERGY AND NON-AGRICULTURE RAW MATERIALS

SC5-11-2014/2015. New solutions for sustainable production of raw materials

SC5-12-2014/2015. Innovative and sustainable solutions leading to substitution of raw materials

SC5-13-2014/2015. Coordinating and supporting raw materials research and innovation

ENABLING THE TRANSITION TOWARDS A GREEN ECONOMY THROUGH ECO-INNOVATION

SC5-14-2014. Consolidating global knowledge on the green economy in support of sustainable development objectives in Europe and internationally

DEVELOPING A COMPREHENSIVE AND SUSTAINED GLOBAL ENVIRONMENTAL OBSERVATION AND INFORMATION SYSTEMS

SC5-15-2015. Strengthening the European Research Area in the area of Earth Observation

SC-16-2014. Making Earth Observation and Monitoring Data usable for ecosystem modelling and services

SC5-17-2015. Demonstrating the concept of 'Citizen Observatories'

SC5-18-2014/2015. Coordinating and supporting Earth Observation research and innovation in Europe and in the North African, Middle East, and Balkan Region

Societal Challenge 5: Raw Materials / Overview

Topics

CROSS-CHALLENGE TOPICS

SC5-19-2014/2015. Coordinating and supporting research and innovation in the area of climate action, environment, resource efficiency and raw materials.

SC5-20-2014/2015. Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials

Societal Challenge 5: Raw Materials

SC5-3-2014. The economics of climate change and linkages with sustainable development

Call: H2020-SC5-2014-two-stage Deadline: 8.4.2014

Stage 2: 16.9.2014

Scope: Proposals should address one of the following :

- a. **Economic Assessment of Climate Change.** Developing a comprehensive economic assessment of climate change. The assessment should consider different mitigation and adaptation strategies, focusing on the low-carbon transformation of the economy, and evaluate as well as the costs of inaction. Actions should quantify the costs, benefits and risks of different technological and societal transitional changes of the energy system, examine the impacts on green growth, innovation dynamics, job creation and social cohesion, and develop tools and methodologies in support of evidence-based decision making.
- b. **Linkages between climate change actions and sustainable development.** Examining the link between climate change actions and sustainable development through **international research collaboration efforts and developing a science dialogue between the EU and third countries, with a focus on G20 countries.** Proposals should develop technological and socio-economic mitigation pathways and adaptation strategies in the context of wider sustainable development goals, examine actual and prospective mitigation policies in various countries to support evidence-based policy making for climate action in the context of sustainable development, and **undertake international collaboration with scientists with insights into the local challenges and opportunities.** In line with the EU's strategy for international cooperation in research and **innovation proposals should contribute to provide support for capacity-building and knowledge-sharing goals** under the UNFCCC and contribute to major international scientific assessments.

> Research and Innovation actions

Societal Challenge 5: Raw Materials

SC5-5-2014/2015. Coordinating and supporting research and innovation for climate action

Call: H2020-SC5-2014-one-stage & H2020-SC5-2015-one-stage

Deadline: 8.4.2014 & 10.3.2015

Scope: Creation of European climate change networks to facilitate dialogue among the relevant scientific communities, funding bodies and user communities in Europe throughout the duration of Horizon 2020 and enhance effective communication and dissemination activities targeting different stakeholders, to maximize the impacts of the research and innovation initiatives and increase public awareness about climate science and research results. Proposals should cover activities such as clustering, **coordinating and creating synergies between international, EU and nationally funded climate change research and innovation actions**, developing joint programmes and projects, **creating links with related international programmes**, forward looking analysis to establish emerging needs, and effective mechanisms to strengthen science-policy interface. This requires genuinely cross-disciplinary, integrated and systemic approach – including the socio-economic dimension-, as well as the engagement and collaboration between the climate science and the broader stakeholder communities. Actions should address one of the following:

Societal Challenge 5: Raw Materials

Scope (continued):

- a. **[2014] Climate mitigation options:** establishment of a comprehensive mapping and assessment of climate mitigation options, policies and related technologies in the EU taking into account their costs and opportunities. **It should include analyses of the potential for international cooperation/co-development with emerging economies and developing countries**, with the aim of ensuring synergies amongst research projects, **foster collaboration with national and international research programmes** and maximize impacts and outreach of EU-funded activities, also in view of accelerating technology transfer. Furthermore, the risks, benefits and socio-economic aspects of negative emission technologies (including geo-engineering) should also be addressed, together with new approaches for linking research on impacts and adaptation with those on mitigation options and economic costs. **In line with the EU's strategy for international cooperation in research and innovation international cooperation is encouraged, in particular with emerging economies and developing countries.**
- b. **[2015] Earth-system modelling and climate services:** parallel development of a EU-wide climate modelling and service framework to enable and encourage open exchange of knowledge, expertise and data in order to more accurately simulate climate evolution, and to improve the reliability of science based climate information at local, regional and global scales. It should integrate the European climate modelling, observations and service infrastructure initiatives and provide a science-stakeholder communication platform to better manage European resources, reduce fragmentation and **improve synergies between national, EU , and international activities.**

> Coordination and support action

Societal Challenge 5: Raw Materials

SC5-9-2014. Consolidating the European Research Area on biodiversity and ecosystem services

Call: H2020-SC5-2014-one-stage

Deadline: 8.4.2014

Scope: Proposals should pool the necessary financial resources from the participating national (or regional) research programmes with a view to implementing a joint call for proposals with EU co-funding in this area, based on a joint vision and a common strategic research agenda for biodiversity and ecosystem services, involving also social sciences and humanities as appropriate.

The joint call should be implemented in cooperation with non-EU countries where relevant, and by developing links with relevant research infrastructures. In line with the EU's strategy for international cooperation in research and innovation international cooperation with international partners is encouraged. Proposers should also consider implementing other joint activities, including the establishment of a pan-European network of funding agencies and other key players in Europe, building on previous experience and avoiding overlaps with other initiatives, support to mutual learning and training, exchange of good practice, researcher mobility and equal opportunities (e.g. through EURAXESS) and better careers in the field as well as additional joint calls without EU co-funding.

> ERA-NET

Societal Challenge 5: Raw Materials

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

Call: H2020-SC5-2014-one-stage & H2020-SC5-2015-one-stage

Deadline: 8.4.2014 & 10.3.2015

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 integrated, systemic approach, especially between socio-economic and environmental sciences.

Proposals should 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 a national level in order to guide policy- and decision-making. It should also analyze 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 with the Economics of Ecosystems and Biodiversity (TEEB) studies.

Societal Challenge 5: Raw Materials

Scope (continued):

- 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 could potentially be implemented through future joint calls. Examples of relevant issues are: land-use change effects and trends, spatial planning, **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. **[2014] An EU support mechanism for evidence-based policy on biodiversity & ecosystem 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.**
- > Coordination and support action

Societal Challenge 5: Raw Materials

SC5-14-2014. Consolidating global knowledge on the green economy in support of sustainable development objectives in the EU and internationally

Call: H2020-SC5-2014-one-stage

Deadline: 8.4.2014

Scope: Creation of networks to facilitate dialogue among the relevant scientific communities in the EU and beyond throughout the duration of Horizon 2020. Proposals should cover activities such as clustering, **coordinating and creating links and synergies between international and European research and innovation programmes** and other initiatives in the area of climate action, environment, resource efficiency and raw materials, and communication and dissemination activities for an improved science-policy interface in response to decision-making requirements. Network activities between stakeholders should contribute to consolidating European experience and research findings that are relevant to the green economy, including on systemic eco-innovation. This requires cross-disciplinary interaction and an integrated, systemic approach, especially between socio-economic and environmental sciences to support European initiatives for a green economy, **in which global aspects are taken into due consideration.**

In line with the EU's strategy for international cooperation in research and innovation proposals should contribute to establish effective links to relevant international networks and initiatives, particularly those supporting the Rio+20 follow up and the green economy agenda at an international level. Examples of areas of activity include: sustainable consumption and production, greening global value chains, green growth and jobs, green behavior, climate resilience, economic and environmental policies, etc. **Proposals should be geared towards supporting the development and implementation of sustainable development goals.**

Proposals should include a sufficient number of international partners from the target region(s) to ensure adequate scale and scope of cooperation.

> Coordination and support action

Thank you



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