

# EU Africa Research Cooperation in Horizon 2020: Health, Climate Change, and Agriculture



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## Building Bi-regional Partnerships for Global Challenges

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# National Contact Points (NCPs) for Horizon 2020

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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:

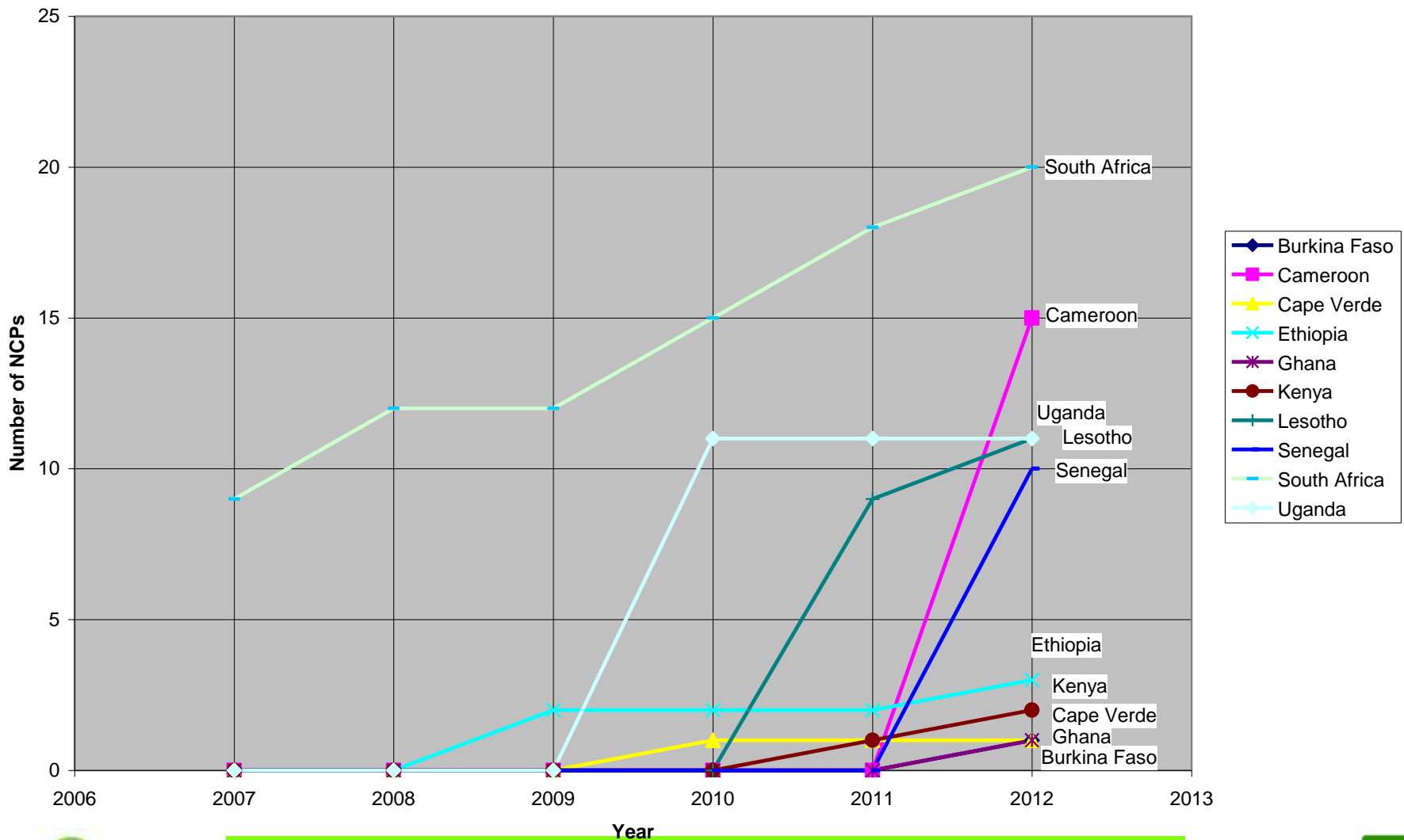
- Increased awareness of EU funding instruments (How the EC works)
- Timely and precise information on specific calls
- Technical understanding of requirements
- Support to partner search and networking
- Support with regards to legal and financial administration issues



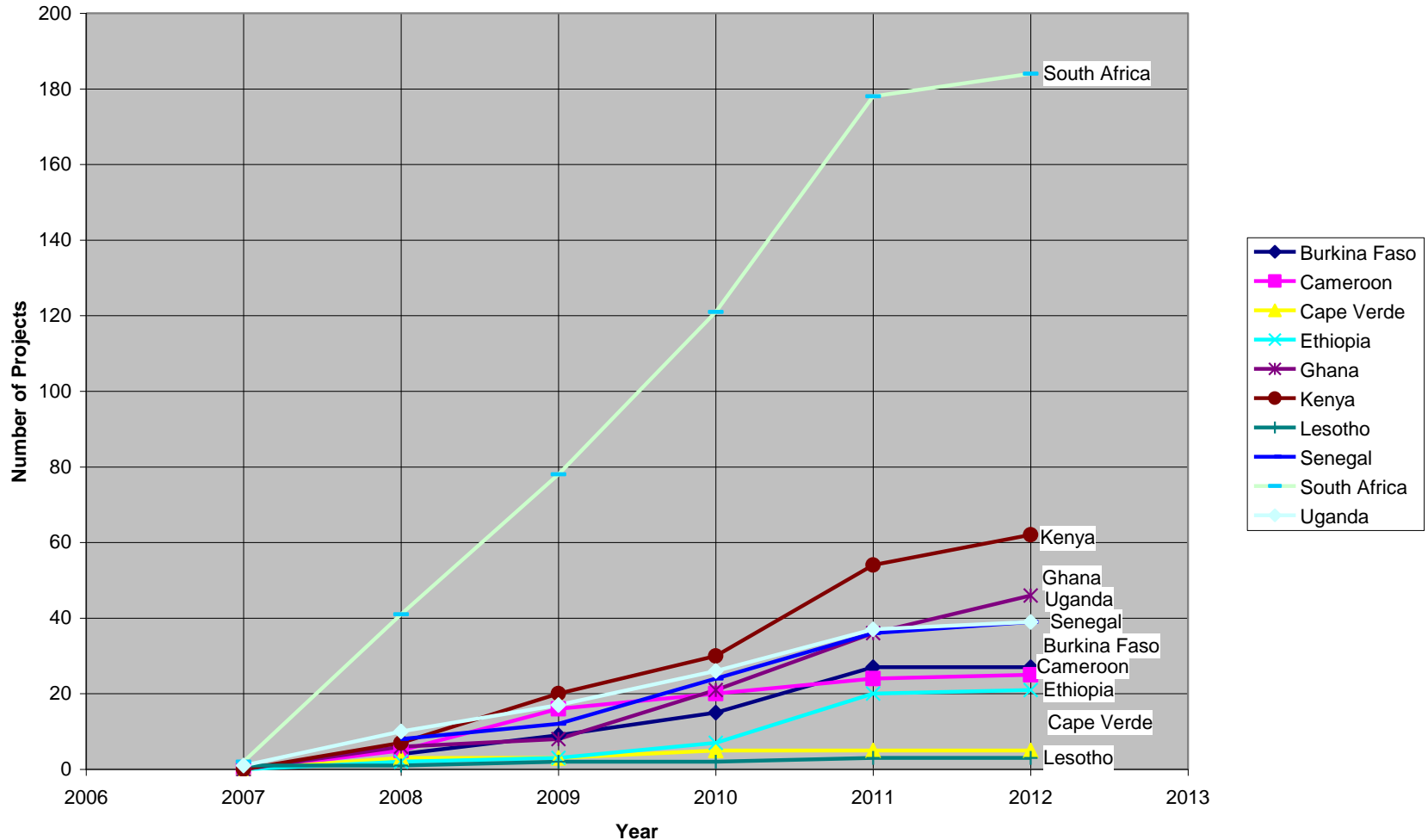
# Benefits of establishing and maintaining a robust NCP system

- 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 Framework 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

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• National NCP Coordinator</li><li>• Legal and Financial aspects</li><li>• SMEs</li><li>• Access to Finance*</li><li>• European Research Council</li><li>• 'Future and Emerging Technologies';</li><li>• 'Marie Curie actions on skills, training and career development';</li><li>• 'European research infrastructures;</li><li>• 'Information and Communication Technologies (ICT)';</li><li>• 'Nanotechnologies, advanced materials and advanced manufacturing and processing';</li></ul> | <ul style="list-style-type: none"><li>• 'Space';</li><li>• 'Health, demographic change and wellbeing';</li><li>• 'Food security, sustainable agriculture, marine and maritime research and the bio-economy'; &amp; 'Biotechnology';</li><li>• 'Secure, clean and efficient energy';</li><li>• 'Smart, green and integrated transport';</li><li>• 'Climate action, resource efficiency and raw materials';</li><li>• 'Inclusive, innovative and secure societies';</li><li>• Security'</li><li>• Joint Research Centre</li></ul> |
|--|---|

# 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/](http://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](http://www.cordis.europa.eu)
  - Basic information
  - Partner search and project database
  - Contacts to NCPs
- INCO-Wiki: [www.ncp-incontact.eu](http://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](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.

# 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](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-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-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: 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: 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 CO<sub>2</sub> 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 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](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-climate_en.pdf)

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**4.11.2013**

# 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-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-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**

SC5-1 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

SC5-5-2014/2015. 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

**SC5-14-2014. 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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**CAAST-Net Plus**

**Building bi-regional partnerships for global challenges**

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