

**PACE-NET** PLUS



PACIFIC-EUROPE NETWORK FOR SCIENCE, TECHNOLOGY AND INNOVATION

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*Societal Challenge 2*

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

## Horizon 2020 Societal Challenges

1. Health, demographic change and well-being
- 2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy**
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
5. Climate action, environment, resource efficiency and raw materials
6. Europe in a changing world — inclusive, innovative and reflective societies
7. Secure societies — protecting freedom and security of Europe and its citizens

## Considerations

- Solutions should duly integrate Socio-economic approaches. Sciences and Humanities are involved in cross-cutting way.
- Some activities are open to third countries and strong efforts are made to encourage them to seize this opportunity. Bilateral and multilateral proposals are encouraged (involving stakeholders from economy and the public sector).
- Several topics have been specifically flagged for international cooperation

## Background

### Aim

Making the best of our biological resources in a sustainable way

### Objective

Contribute to securing sufficient supplies of safe, healthy and high quality food and other bio-based products, by developing productive, sustainable and resource-efficient primary production systems, fostering related ecosystem services and the recovery of biological diversity, alongside competitive and low carbon supply chains

Deadlines between February & June 2014

## The subtopics

### 1. Sustainable Food Security

- Sustainable Food Production systems
- Safe food and healthy diets and sustainable consumption
- Global drivers of food security

H2020-SFS-2014, €138 million, 15 topics

## The subtopics

### 2. Blue Growth: Unlocking the potential of Seas and Oceans

- Sustainably exploiting the diversity of marine life
- New offshore challenges
- Ocean observation technologies/systems
- Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the blue growth focus areas

H2020-BG-2014, €59 million, 12 topics

## The subtopics

### 3. Innovative, Sustainable and Inclusive Bioeconomy

- Sustainable Agriculture and Forestry
- Sustainable and competitive bio-based industries
- Cross-cutting actions covering all activities

H2020-ISIB-2014, €44.5 million, 10 topics

## Sustainable Food Security

### Sustainable food production systems

- Sustainable terrestrial livestock production
  - Genetics and nutrition and alternative feed sources for terrestrial livestock production
  - Tackling losses from terrestrial animal diseases

*Note: China & other third countries*
- Sustainable crop production
  - External nutrient inputs
- Practical solutions for native and alien pests affecting plants
  - Native and alien pests in agriculture and forestry
  - EU-China cooperation on Integrated Pest Management (IPM) in agriculture



## Sustainable Food Security

### Sustainable food production systems

- Soil quality and function
  - Note: China & other third countries*
- Sustainable intensification pathways of agro-food systems in Africa
- Genetic resources and agricultural diversity for food security, productivity and resilience
  - Traditional resources for agricultural diversity and the food chain
- Resource-efficient eco-innovative food production and processing
  - Note: SME focus*
- Towards a gradual elimination of discards in European fisheries

## Sustainable Food Security

### Sustainable food production systems

- Tackling disease related challenges and threats faced by European farmed aquatic animals
  - Scientific basis and tools for preventing and mitigating parasitic diseases of European farmed fish
- Implementation of an Ecosystem-based approach for European aquaculture
  - Optimizing space availability for European Aquaculture

## Sustainable Food Security

### Safe food and healthy diets and sustainable consumption

- Assessing the health risks of combined human exposure to multiple food-related toxic substances
- Authentication of food products
  - Authentication of olive oil  
*Note: third countries*
- Proteins of the future  
*Note: third countries & SME focus*
- Innovative solutions for sustainable novel food processing  
*Note: SME focus*

## Sustainable Food Security

### Global drivers of food security

- Sustainable food and nutrition security through evidence based EU agro-food policies
  - Strengthening the analytical capacity on food and nutrition security
  - Understanding relevant issues impacting the agro-food sector

*Note: Africa & Asia*

## Blue Growth: Unlocking the potential of Seas and Oceans

### **Sustainably exploiting the diversity of marine life**

- Novel marine derived biomolecules and industrial biomaterials
- Enhancing the industrial exploitation potential of marine-derived enzymes

### **New offshore challenges**

- Preparing for the future innovative offshore economy
- Delivering the sub-sea technologies for new services at sea

### **Ocean observation technologies/systems**

- Developing in-situ Atlantic Ocean Observations for a better management and sustainable exploitation of the maritime resources
- Acoustic and imaging technologies

## Blue Growth: Unlocking the potential of Seas and Oceans

### **Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the blue growth focus area**

- Consolidating the economic sustainability and competitiveness of European fisheries and aquaculture sectors to reap the potential of seafood markets
- Monitoring, dissemination and uptake of marine and maritime research
- Supporting SMEs efforts for the development – deployment and market replication of innovative solutions for blue growth
- Ocean literacy – Engaging with society – Social Innovation
- Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance
- European polar research cooperation

## Innovative, Sustainable and Inclusive Bioeconomy

### Sustainable Agriculture and Forestry

- Provision of public goods by EU agriculture and forestry: Putting the concept into practice
- Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange
- Improved data and management models for sustainable forestry
  - Improved forest data

### Sustainable and competitive bio-based industries

- Renewable oil crops as a source of bio-based products
- Public procurement networks on innovative bio-based products

## Innovative, Sustainable and Inclusive Bioeconomy

### Cross-cutting actions covering all activities

- Towards an innovative and responsible bioeconomy
  - Engaging society, reaching end users and linking with policy makers for a participative governance of the bioeconomy
  - Bridging research and innovation efforts for a sustainable bioeconomy
- Supporting National Contact Points for Societal Challenge 2 and the Key Enabling Technology (KET) 'Biotechnology'  
*Note: third countries*
- Networking of Bioeconomy relevant ERA-NETs



## Innovative, Sustainable and Inclusive Bioeconomy

### Cross-cutting actions covering all activities

- Coordination action in support of the implementation by participating States of a Joint Programming Initiative on Agriculture, Food Security and Climate Change
- Public-Public Partnerships in the bioeconomy
  - Sustainable and resilient agriculture for food and non-food systems

Thank you

