HORIZON 2020

Societal Challenge 2
Blue Growth including Food Security, Marine and Maritime and Inland Water Research, and the Bioeconomy

Work Programme 2018-2020
Dr Elaine Groom, NICP Agri-Food
Overview

• SC-2 at a glance
• Highlights
• Integration of SFS terrestrial and aquatic issues
• Blue Growth topics
• Marine Across the other Societal Challenges
• Info Days
• Contact Information
SC2 WP
at a glance

5 priorities

Smart, connected territories in rural and coastal areas
Transition towards a circular bioeconomy

Major innovation on land and sea

Climate change and resilience on land and sea

Functional ecosystems, sustainable food systems, healthy lifestyles

5 priorities

Understanding, preserve and valorize oceans

Boost and modernise rural economies and communities

Nourish people sustainably today and tomorrow

3 missions

Sustainable food security ca. €710M

Blue Growth ca. €215M

Rural renaissance ca. €295M

Circular Bioeconomy Investment Platform €100M

3 calls + FI

Sustainable food from land and sea for healthy diets; resource-efficient, resilient food systems, less waste; Less greenhouse gas emissions; Improved ecosystems

Productive, healthy, resilient seas & oceans; sustainable aquatic resources for food & bio-based value chains; strong Blue economy

Enhance innovation uptake, circular economy and digitisation for strong and attractive rural areas

De-risking investments in innovative technologies fostering industrial, rural and coastal development

key impacts
Highlights

Building sustainable food systems for healthy people & environment
- Valorising functional biodiversity; Unlocking the potential of microbiome in a food systems approach; more healthy and sustainable foods, animals, plants, marine; personalised nutrition; alternative proteins; better water and waste management; Building capacities around clouds, labs, genetics; research in the context of the International Bioeconomy Forum (IBF);
- Total investment €135 million for the microbiome across Horizon 2020

Building a circular bioeconomy
- Circular Bioeconomy Thematic Investment Platform.
- Total EU contribution to risk-sharing financial instrument €100 million

Oceans and Seas research flagships
- All Atlantic Ocean Research Alliance: coordination of maritime research and innovation in the Atlantic; marine ecosystems; new aquaculture value chains;
- Future of the Seas and Oceans flagship: Blue cloud; observations and forecasting; observation technologies
- Total investment over €100 million

Enabling the digital revolution in rural economies
- Digital integration platforms; digital service platforms for rural and coastal economies; digital innovation hubs; preparing farmers/fishers for the digital age; digital solutions and tools for CAP/CFP modernisation
- Total investment over €60 million

EU-Africa Partnership on Food and Nutrition Security and Sustainable Agriculture & EU-China Flagship initiative
- Total investment €115 million
SFS structure

Environment and climate smart food production and consumption

From functional ecosystems to healthy food

Sustainable Food Security

Building capacities

Targeted international cooperation

European Commission
Integration of SFS terrestrial and aquatic issues

LC-SFS-03-2018: Microbiome applications
LC-SFS-17-2019: Alternative proteins for food and feed
SFS-27-2018: Monitoring food R&I investments and impacts
Blue Growth Call 2018-2019

Indicative BUDGET: 169,5 M€
2018: 80,5 M€
2019: 89 M€

Activity lines:
- 2.3 Exploiting the potential of aquatic living resources
- 2.5 Cross cutting marine and maritime research

9 Topics
MISSION
- Climate - Ocean
- Sustainable food chains
- De-risking Investments
- Land-Sea Connection
- International Cooperation

TOPICS
- Baltic and North Sea
- Blue Bioeconomy
- Marine bioresources
- Aquaculture
- Platforms
- Bio-based Plastics
- Future of Seas & Oceans
- Atlantic Alliance
- Black Sea
- Fisheries

2018
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2018-19
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2019
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2019-20
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2020
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TOPICS - RIAs & IAs

- **LC-BG-03-2018**: Sustainable harvesting of marine biological resources
  - RIA, 13 M€ (2018)  2 x 6.5 M€

- **DT-BG-04-2018-2019**: Sustainable EU Aquaculture 4.0 – nutrition and breeding
  - IA, 24 M€ (2018-19)  4 x 6 M€

- **BG-05-2019**: Multi-use of the marine space, offshore and near-shore: pilot demonstrators
  - IA, 18 M€ (2019)  2 X 9M€

- **CE-BG-06-2019**: Sustainable solutions for bio-based plastics on land and sea
  - IA, 18 M€ (2019)  2 X 9M€
TOPICS - Coordination and Support Actions

- Towards a Baltic and North Sea R&I programme
  2,5 M€, CSA (2018)

- Coordination of marine and maritime R&I in the Black Sea
  2 M€, CSA (2019)
BG-02-2018 Blue Bioeconomy PPP
Activities shall address innovative, sustainable and climate-friendly possibilities to produce, harvest and exploit aquatic biomass from different trophic levels for use in food and other value chains.

The ERA-NET Cofund shall address research and innovation gaps such as: achieving zero waste by optimising the use of underutilised and waste material from fisheries and aquaculture and apply biotechnology and ICT in the blue bioeconomy to develop smart, efficient, traceable food systems and other biomaterials and create synergies between aquaculture and fisheries (e.g. through genetic assessment); to unlock the potential of microbiomes in aquaculture, fisheries, food processing and biotechnology; to create predictive tools to improve the identification, targeting and conservation of biodiversity “hot-spots” in the oceans (e.g. through omics-based technologies); explore synergies with land-based production in areas such as food and feed processing, biorefining, bioenergy, biomaterials, chemicals and nutrients, and include waste streams from aquatic to terrestrial value chains; to improve aquaculture and fisheries by using a combination of methods, processes and technologies such as biotechnology to create innovative feeds, improve brood stock, introduce new species, improve biosecurity, define stock baselines, and assess stocks.
FLAGSHIPS

  - Co-ordinating Atlantic R&I CSA, 4 M€
  - Ecosystems assessment RIA, 3-4 x 9 M€
  - Aquaculture value chains RIA, 3-4 x 8 M€

  - Blue Cloud IA, 6 M€
  - Observations and forecasting IA, 12 M€
  - Technologies for Observations (tbc 2020)
## Key Dates

<table>
<thead>
<tr>
<th>Topics (Type of Action)</th>
<th>Budgets (EUR million)</th>
<th>Deadlines</th>
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<td>2018</td>
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<td>Opening: 31 Oct 2017</td>
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<td>BG-08-2018-2019 (RIA)</td>
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<td>13 Feb 2018 (First Stage)</td>
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<td>23 Jan 2019 (First Stage)</td>
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<td>04 Sep 2019 (Second Stage)</td>
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BLUES GROWTH
beyond SC2-BG
Blue Growth across H2020

**Societal Challenges**

**SC3 Energy**
- wave energy
- floating wind farms
- aquatic biomass biofuel
- offshore storage of CO2
- Shipping renewable fuel
- Energy islands

**SC4 Transport**
- Innovative ships
- autonomous ships
- ship emissions
- unmanned activities
- underwater noise
- maritime transport safety
- Marine accidents response

**SC5 Climate**
- Climate change, biodiversity and ecosystems
- recovery of sea resources
- sea level changes
- Cryosphere
Blue Growth across H2020

**Industrial Leadership / Research Infrastructures**

**Examples**

- SPACE – Copernicus Marine Services, ocean models
- NMBP: off-shore energy materials
- Research Vessels
Societal Challenge 2 InfoWeek

14 - 17 November 2017

- 14/11: Infoday (+webstreamed)
- 15/11: Brokerage event
- 16/11: Bioeconomy day
- 17/11: Agri-Digitisation day
  Special session on Blue Growth

- Societal Challenge 2 National Info Day 21\textsuperscript{st} November - Belfast (InterTrade Ireland)
- Dedicated Marine info session 12\textsuperscript{th} December - Galway
Contact Information

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  Agri-food and BBI topics

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  Marine topics