

**SOCIETAL CHALLENGE 2 : presentation of the calls**  
**Food security,**  
**Sustainable Agriculture & Forestry,**  
**Marine, Maritime & inland Water Research**



1

## Call for Sustainable Food Security (SFS):

*Resilient and resource-efficient value chains*

***“Sustainable food security...”***

*“...when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life...”*

- **19** « topics » for 2018
- **26** « topics » for 2019
- **14** « topics » for 2020

## **Four action lines:**

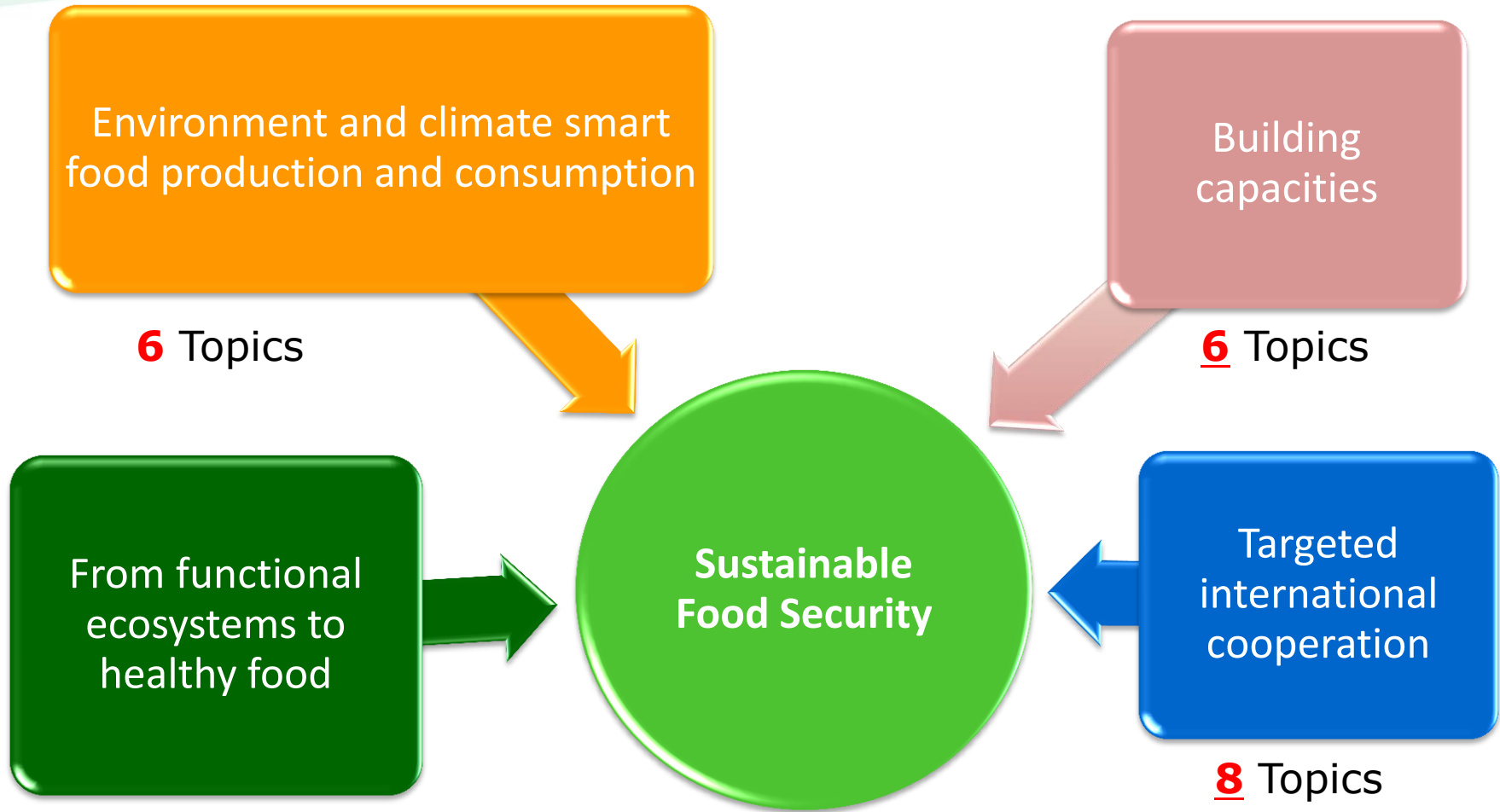
- Deliver diverse and healthy food from land and sea,
- Increase resource efficiency and environmental performance of food systems from primary production to consumers,
- Understand the impact of climate change on agriculture, resources, food quality and identify options to manage its effects,
- Reduce greenhouse gas emissions and emissions of air pollutants from land use and food production taking into account main drivers such as inputs and consumption patterns.

## **Opening to International Cooperation:**

- Support to the implementation of the EU-Africa Partnership on Food and Nutrition Security and Sustainable Agriculture,
- Implementation of the EU-China FAB Flagship initiative.

## **Support to policy priorities of UE:**

- Food security, preservation of resources, soils, biodiversity, environment...
- EIP-AGRI « Productive and Sustainable Agriculture »
- CAP, PCP, Health policy & consumers



## Contribution of SFS to Focus Areas

### LC Low Carbon

- LC-SFS-03-2018: Microbiome applications
- LC-SFS-15-2018: Future proofing our plants
- LC-SFS-17-2019: Alternative proteins for food and feed
- LC-SFS-19-2018-2019: Climate-smart and resilient farming
- LC-SFS-20-2019: European Joint Programme on agricultural soil management
- LC-SFS-22-2020: Forest soils Research and Innovation Action
- LC-SFS-34-2019: Food Systems Africa

### DT Digitisation

- DT-SFS-14-2018-2019: Personalised Nutrition
- DT-SFS-26-2019: Food Cloud Demonstrators

### CE Circular Economy

- CE—SFS-23-2019: Food systems approaches in cities
- CE-SFS-24-2018: Valorising urban biowaste

**SFS-01-2018/2019/2020** : Biodiversity in action : across farmland and the value chain

**A:2018** Small organisms, big effects for plants

RIA, 14 M€ (X2)

**B:2019** Capitalising on native biodiversity in farmland landscape

RIA, 16 M€ (X2)

**C:2020** From agrobiodiversity to dynamic value chains

RIA

**LC-SFS-03-2018** : Microbiome applications for sustainable food systems

**IA, 42 M€ (X4)**

**SFS-04-2019/2020** : Integrated health approaches and alternatives towards pesticide use

**A:2019** Integration of plant protection in a global Health approach

RIA, 15 M€

**B: 2020** Biocidal and plant protection products

IA

**SFS-05-2018/2019/2020** : New and emerging risks to plant health

**RIA, 7M€**

**SFS-06-2019/2020** : Stepping up integrated pest management

**A: 2018** Decision support systems  
5M€

RIA,

**B: 2020** EU wide demonstration farm network

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CSA

**SFS-07-2018** : Making European beekeeping healthy and sustainable

**RIA, 8 M€**

**SFS-08-2018/2019** : Improving animal welfare

**A:2018** Organic and low-input farming

**RIA, 10M€ (X2)**

**B:2019** Precision livestock farming

**IA, 6M€**

**SFS-11-2018/2019** : Anti-microbials and animal production

**A:2018** Rethinking management of health of farmed animals

**RIA, 12M€ (X2)**

**B:2019** Alternative to anti-microbials

**RIA, 6M€**

**SFS-12-2019** : A vaccine against African Swine Fever

**IA, 10M€**

**DT-SFS-14-2018/2019** : Personalized Nutrition

**IA, 28M€ (X4)**

**LC- SFS-15-2018** : Future proofing our plants

**CSA, 3M€**

**SFS-16-2018** : Towards healthier and sustainable food

**RIA, 14 M€ (X2)**

**LC-SFS-17-2019** : Alternative proteins for food and feed

**IA, 32M€ (X4)**

**Focus areas :** (DT) digitisation (LC) Low Carbon



## 1.2 Environment and climate smart food production and consumption – *(5 topics)*

**LC-SFS-19-2018-2019** : Climate-smart and resilient farming

A: 2018 Microclimate management : from field to landscape

RIA, 7M€

B: 2019 Efficiency and resilience of mixed farming and agroforestry systems

RIA, 14M€

(X2)

**LC-SFS-20-2019** : European Joint Programme on agricultural soil management

**EJP Co-fund (50%), 40M€**

**LC-SFS-22-2020** : Forest soils Research and Innovation Action

**SFS-23-2019** : Integrated water management in small agriculture catchments

**CE-SFS-24-2019** : Innovative and citizen-driven food system approaches in cities

RIA, 14M€ (X2)

IA, 12M€ (X2)

**CE-SFS-25-2018**: Integrated system innovation in valorising urban biowaste

IA, 20M€ (X2)

**DT-SFS-26-2019** : Food Cloud demonstrators

From TRL 4-5 to TRL 6-7

**IA, 10M€**

**SFS-27-2018** Monitoring food R&I investments and impacts

**RIA, 7M€**

**SFS-28-2018/2019/2020** : Genetic Resources and pre-breeding communities

**A: 2018** Joining forces for GenRes and biodiversity management

**CSA, 3M€**

**B: 2019** Adding value to plant GenRes

**RIA, 14M€ (X2)**

**C: 2020** The GenRes-user interface and pre-breeding activities

**IA**

**SFS-29-2018** : Innovations in plant variety testing – *nouvelles variétés végétales*

**RIA, 8 M€**

**SFS-30-2018/2019/2020** : Agri-Aqua Labs

**A:2018** Understanding the genome of farmed animals, its expression and translation into traits-

**IA, 18M€ (X3)**

**B: 2019** Looking beyond plant adaptation

**RIA, 10M€ (X2)**

**C: 2020** Plant energy biology

**SFS-31-2019** : ERANETs in agri-food (*tbc*)

**A: 2019** ICT-Enabled Agri-food Systems

**Eranet Cofund, 6M€**

**B: 2019** Climate change and Food Systems

**Eranet Cofund, 5M€**

**C: 2019** International Veterinary Vaccinology

**Eranet Cofund, 5M€**

**SFS-32-2018 (LC)** : Supporting Microbiome Coordination and the International Bioeconomy Forum

**CSA, 3M€**

*EU- Africa partnership on food and nutrition security and sustainable agriculture*

**SFS-33-2018**: Support to the implementation of EU-Africa Research and Innovation Partnership on Food and Nutrition Security & Sustainable Agriculture (FNSSA)

**CSA, 5M€**

**LC-SFS-34-2019** : Food Systems Africa

**RIA, 21M€ (X3)**

**SFS-35-2019/2020** : Sustainable Intensification in Africa

**A:2019 African Farming Systems, sustainable intensification pathways** RIA, 7,5 M€  
**B:2019 Soil system for Africa** RIA, 5M€

*EU-China FAB Flagship initiative*

**CE-SFS-36-2020** : Diversifying farmers' income through small bio-based concepts

**SFS-37-2019**: Integrated approaches to food safety controls across the agri-food chain

**RIA, 8 M€ (X2)**

**SFS-38-2018** : Highly efficient management of soil quality and land resources

**IA, 5M€**

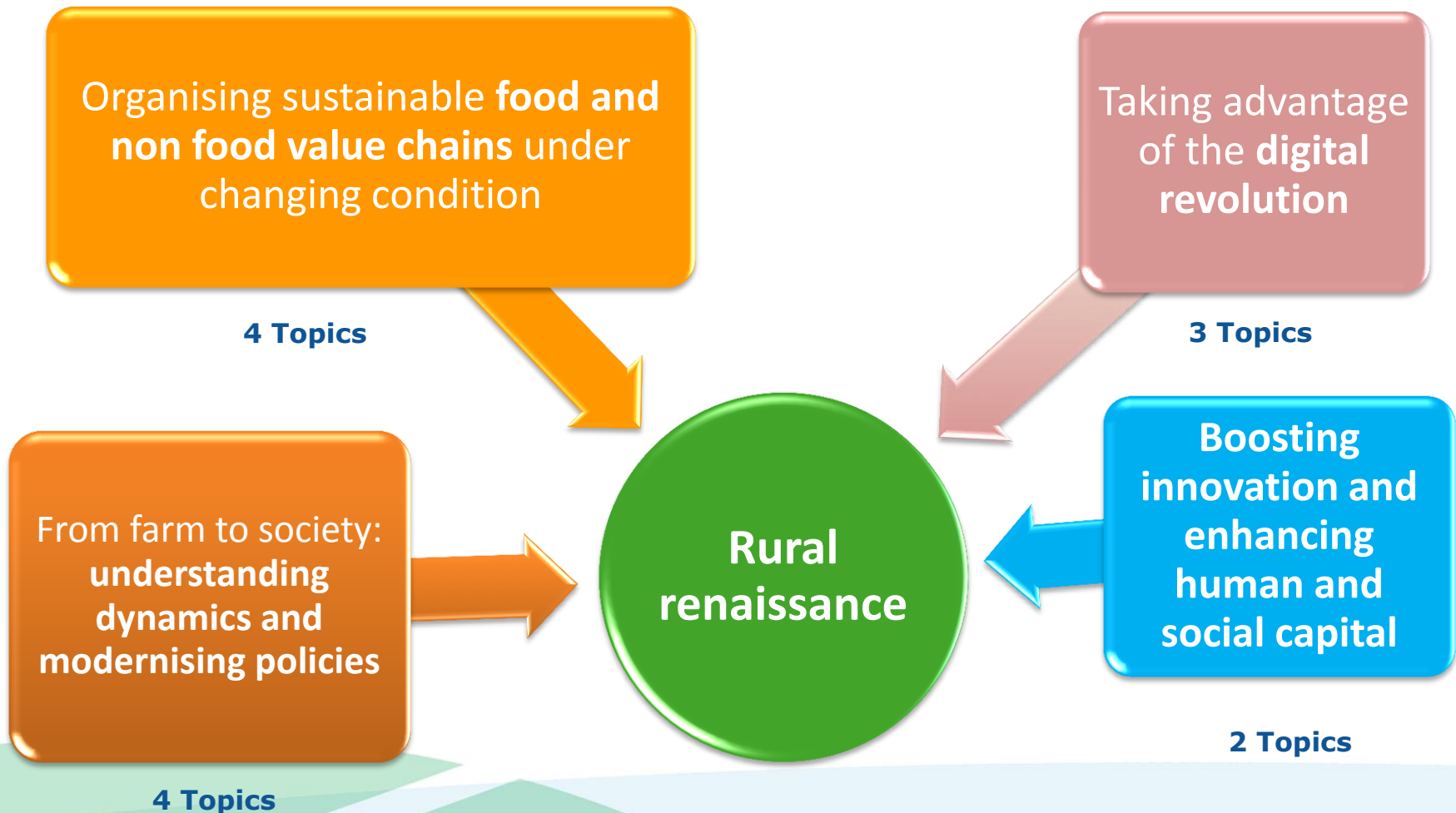
**CE-SFS-39-2019** : High-quality organic fertilisers from biogas digestate **IA, 5M€**

**2**

# Call for a Rural Renaissance (**RUR**) Fostering innovation and business opportunities

- *10 topics for 2018*
- *7 topics for 2019*
- *5 topics for 2020*

# 2018/2020 RUR Call structure



## Contributions to focus areas

### DT Digitisation

- **DT-RUR-12-2018 ICT Innovation for agriculture – Digital Innovation Hubs for Agriculture**
- **DT-RUR-13-2018 Enabling the farm advisor community to prepare farmers for the digital age**
- **DT-RUR-14 -2018 ICT Digital solutions and e-tools to modernize the CAP**

### LC Low Carbon

- **LC-RUR-11-2019-2020 Sustainable wood value chains**

### CE Circular Economy

- **CE-RUR-08-2018-2019-2020 Closing nutrient cycles**
- **CE-RUR-10-2019 Circular biobased business models for rural communities**

## 2.1 From farm to society: understanding dynamics and modernising policies – (4 topics)

RUR-01-2018-2019 : Building modern rural policies on long-term visions and societal engagement

A: 2018 Rural society-science-policy hub CSA, 5M€

B: 2018 Renewing rural generations, jobs and farms RIA, 6M€

C: 2019 Building resilient mountain value chains delivering private and public goods RIA, 6M€

RUR-02-2018 : Socio-economic impacts of digitisation of agriculture and rural areas

RIA, 5M€

RUR-03-2018 : Contracts for effective and lasting delivery of agri-environmental public goods

RIA, 5M€

RUR-04-2018-19 : Analytical tools and models to support policies related to agriculture and food

A: 2018 Developing new models supporting policies related to agriculture RIA, 4M€

B: 2019 Modelling international trade in agri-food products RIA, 5M€

## 2.2 Organising sustainable food and non-food value chains under changing conditions –

### CE-RUR-08-2018/2019/2020 : Closing nutrient cycles

A: 2018 Understanding properties and impacts of bio-based fertilisers

RIA, 6M€

B: 2018-19-20 Bio-based fertilisers from animal manure

IA, 8M€

C: 2020 Bio-based fertilisers from other by-products of the agro-food, fisheries, aquaculture or forestry sectors

IA, 8M€

### RUR-09-2018 : Realising the potential of regional and local bio-based economies

CSA, 3M€

### CE- RUR-10-2019/2020 : Circular bio-based business models for rural communities

IA, 10M€

### LC- RUR-11-2019/2020: Sustainable wood value chains

A: 2019 Building with wood

IA, 10M€

B: 2020 Resilient forest systems

IA, 5M€



DT-RUR-12-2018 : ICT Innovation for agriculture – Digital Innovation Hubs for Agriculture

IA, 10M€

RUR-13-2020: Enabling the farm advisor community to prepare farmers for the digital age

CSA, 7M€

RUR-14-2018: Digital solutions and e-tools to modernise the CAP

IA, 10M€, maa



## 2. Call for a Rural renaissance

### HORIZON rural areas – (2 topics)

## 2.4 Boosting innovation and enhancing the human and social capital in

RUR-15-2018/2019/2020 : Thematic networks compiling knowledge ready for practice

CSA, 12,43M€ - 2018 – AKIS – EIP Agri

CSA, 10M€ - 2019

RUR-16-2019 : Fuelling the potential of advisors for innovation

CSA, 5M€ - AKIS



## **3** Call for Blue Growth (**BG**) : *demonstrating an Ocean of Opportunities*

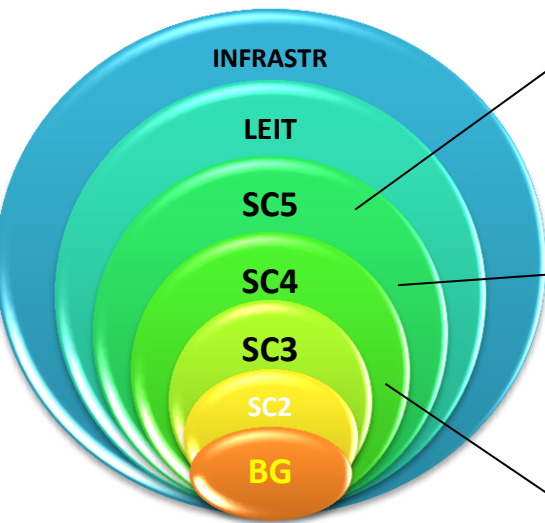
- **5** topics for 2018
- **6** topics for 2019
- **4** topics for 2020



HORIZON

Blue Growth across H2020

**SOCIETAL CHALLENGES**



**SC3  
Energy**

- wave energy
- floating wind farms
- aquatic biomass biofuel
- offshore storage of CO<sub>2</sub>
- 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



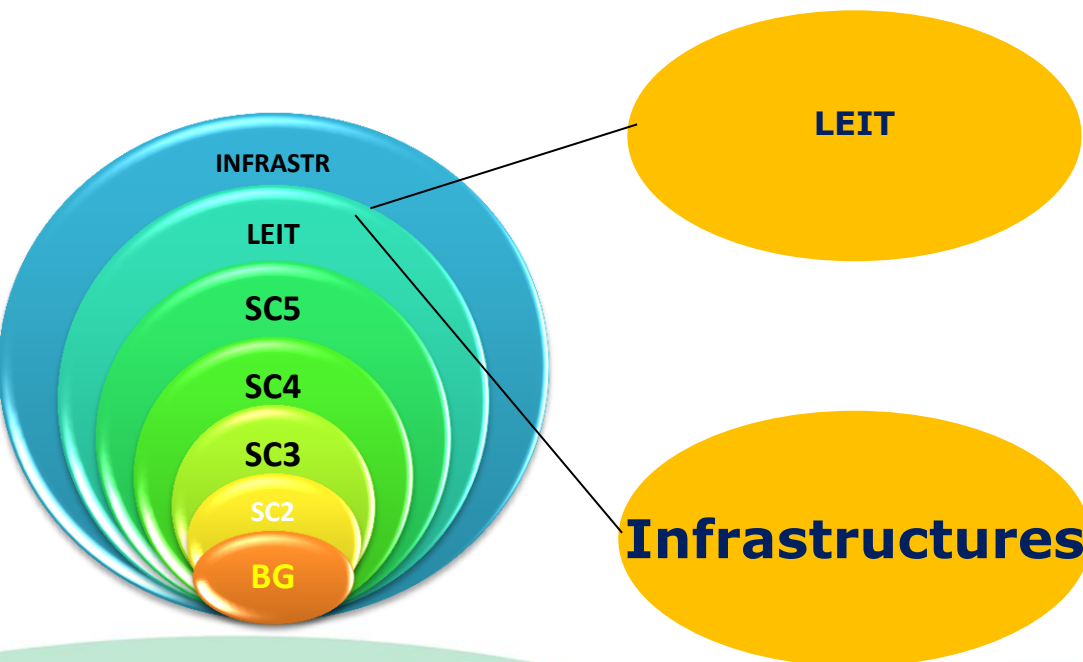
HORIZON

Blue Growth across H2020

DRAFT

**INDUSTRIAL LEADERSHIP / RESEARCH INFRASTRUCTURES**

EXAMPLES



- **SPACE – Copernicus Marine Services, ocean models**
- **NMBP: off-shore energy materials**

- **Research Vessels**



### 3. Call for Blue Growth: demonstrating an Ocean of Opportunities

**BG-01-2018** : Towards a Baltic and North Sea research and innovation programme

CSA, 2,5M€

**BG-02-2018** : Blue Bioeconomy Public-Public Partnership

**ERANet Cofund, 8M€**



### 3. Call for Blue Growth: Unlocking the potential of the Oceans

LC-BG-03-2018 : Sustainable harvesting of marine biological resources

RIA, 12 M€ (X2)

DT-BG-04-2018/2019 : Sustainable EU aquaculture 4.0: nutrition and breeding

2018 IA, 18M€ (X3)

BG-05-2019 : Multi-use of the marine space, offshore and near-shore: pilot demonstrators

IA, 18M€ (X2)

CE-BG-06-2019 : Sustainable solutions for bio-based plastics on land and sea

IA, 18M€ (X2)

### 3. Call for Blue Growth: Unlocking the potential of the Oceans

#### BG-07-2019/2020: The Future of Seas and Oceans Flagship Initiative

A: 2019 Blue Cloud Services	IA, 6M€
B: 2019 Observation and forecasting	IA, 12M€
C : 2020 Technologies for observations	IA

#### BG-08-2018/2019 : All Atlantic Ocean Research Alliance Flagship

A: Coordination of marine and maritime research and innovation activities in the Atlantic Ocean	CSA, 8M€ (X2)
B: Assessing the status of Atlantic marine ecosystems	RIA, 27M€ (X3)
C: New value chains for aquaculture production	RIA, 8M€

#### LC-BG-09-2019 : Coordination of marine and maritime research and innovation activities in the Black Sea

CSA, 2M€



# Deadlines for submission

1 step proposals : 13 February 2018  
23 January 2019

2 steps proposals: 13 February 2018/ 23 January 2019  
11 September 2018 / 04 September 2019