HORIZON 2020

Societal Challenge 2
Work Programme 2017:

Blue Growth

Fiona Grant – NCP (marine) SC2
Fiona.grant@marine.ie

John Evans – National Delegate
John.evans@marine.ie

Patrick Barrett – NCP SC2
Patrick.barrett@agriculture.gov.ie

Richard Howell – DAFM National Delegate

Policy drivers

Why Food and Nutrition Research?

- 9 billion people by 2050

- Estimated need of a 70% increase of global food production

- Nowadays, 1.5 Earths needed for resources. Two Earths by 2030!

- 1.3 billion tonnes of food wasted per year – 100 kg per person in EU

- 795 million adults undernourished

- 1.9 billion adults overweight and/or obese

Algae Biorefinery

Service vessels

I'M ALLERGIC TO FISH

Offshore

Green & Blue concept — Leisure concept — Sustainable Production Complex

The Arctic

Cleaning the Sea

The BLUEMED Initiative

Observing systems

Aquaculture

3

European
Commission
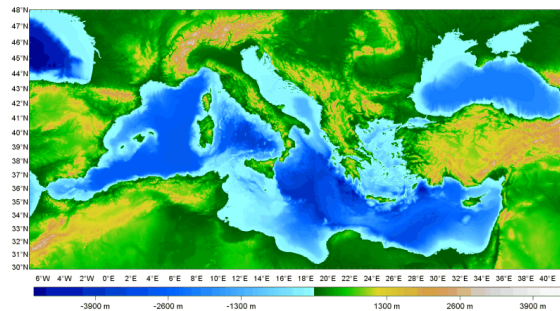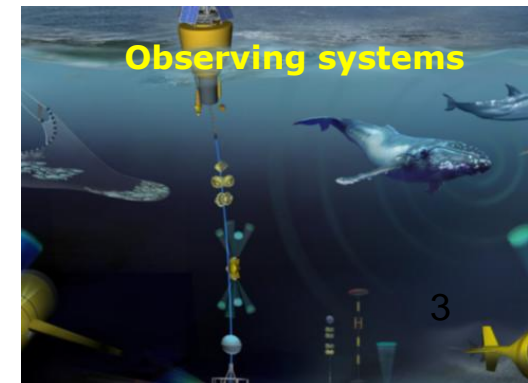
The EU 'Blue' Policy context:

2008:   **The EU Integrated Maritime Policy**

2012-2014:   **The EU Blue Growth Agenda with its Sea-basin
                Strategies e.g. the Atlantic Strategy and its Action Plan**

2014:   **Revised EU Common Fisheries Policy**

2014:   **Several Communications, such as**:

- the Blue Energy Communication
- the Blue Tourism Communication
- the Blue Innovation Communication *(Joint MARE&RTD*)

Directives: the Marine Strategy Framework Directive (2008), Maritime
Spatial Planning Legislation (2014), etc.

European
Commission

President Juncker's Commission Agenda

- President Juncker- Jobs, growth investment & stronger global actor
- Commissioner Moedas - Framework Conditions, Excellence, H2020 impact, 3 Os (open innovation, open science, open to the world)
- Blue Growth is a new economic setting for Europe to create jobs (up to 1.5m by 2020), notably in coastal areas

European
Commission

Blue Growth: Political opportunities

A. Demonstrating the innovation potential of seas and oceans

B. Seizing the opportunities of integrated sea basin strategies for science diplomacy

C. Engaging with citizens

European
Commission

Why a Blue Growth Focus Area in H2020 ?

- New activity 2.5 in Horizon 2020 Specific Programme: "cross-cutting marine and maritime research"

- Adopt a strategic approach to cross-cutting marine and maritime research to underpin Integrated Maritime Policy and Blue Growth Strategy

- Catalyse efforts of different Societal Challenges or H2020 priorities to address complex cross-cutting marine and maritime research questions that could not be tackled by a single Societal Challenge

- Take stock of and go further the FP7 experience "The Ocean of Tomorrow" (31 projects, 195M€) on cross-thematic marine and maritime research

3 Topics,
(2 IAs, 1 CSA)
21 M€

Linking healthy oceans and seas with healthy people

The Arctic Dimension

3 Topics,
(3 RIAs)
40 M€

Boosting innovation for emerging Blue Growth activities

Blue Growth

Valorising the Mediterranean Sea basin

5 Topics,
(3 IAs, 1 ERANET, 1 CSA)
57 M€

3 Topics,
(1 RIA, 1 CSA, 1 IA; complementing the 3 RIAs for the Mediterranean under SFS)
12.5 M€

TOTAL: 14 Topics & 1 SME topic, with 19,5 M€
6 IAs, 4 RIAs, 3 CSAs, 1 ERANET
130.5 M€ (+19,5 M€ = 150M), with contributions from 4 different Horizon 2020 parts

European Commission

From unlocking to demonstrating the potential of Ocean

Demonstrating an ocean of opportunities

Boosting innovation for emerging Blue Growth activities

Linking healthy oceans and seas with healthy people

The Arctic dimension

Valorising the Mediterranean Sea basin

	N° Topics	% Budget
IA	6	43
RIA	4	32
CSA	3	4
SME	1	13
ERANET	1	6
	14	

**Blue Growth
WP 2016-2017:
aim**

**Topics under Blue Growth
and Sustainable Food
Security**

European
Commission

Expected impacts

- EU added value
- Scientific excellence
- Technological innovation
- Economic advantage
- Societal benefit
- Skills development (in all topics except BG3 and BG5)
- Open Access (in all RIAs and CSAs)

Scope of the topics

- Broad and non-prescriptive
- Cross-disciplinary and cross-sectorial
- Innovation-oriented

European Commission

BG-1 (2016)	Large-scale algae biomass integrated biorefineries (IA)	22 M€ SC2
BG-2 (2016-2017)	High value-added specialised vessel concepts enabling more efficient servicing of emerging coastal and offshore activities (IA)	15 M€ SC4 (*Transport*)
BG-3 (2016)	Multi-use of the oceans marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues (CSA)	2 M€ SC3 (*Energy*)
BG-4 (2017)	Multi-use of the oceans' marine space, offshore and near-shore: enabling technologies (IA)	8 M€ SC2
BG-5 (2016)	ERANET Cofund on marine technologies	10 SC2+SC4+LEIT

European Commission

BG-6 (2017)	Interaction between people, oceans and seas: a strategic approach towards healthcare and wellbeing (CSA)	2 M€ SC2	
BG-7 (2017)	Blue green innovation for clean coasts and seas (IA)	12 M€ SC2	
BG-8 (2017)	Innovative sustainable solutions for improving the safety and dietary properties of seafood (IA)	7 M€ SC2	

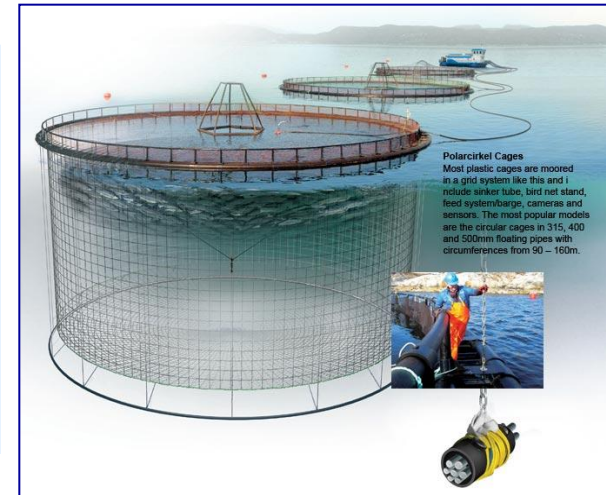| BG-9 (2016)	An integrated Arctic observation system (RIA)	15 M€ SC5 (*Climate*)
BG-10 (2016)	Impact of Arctic changes on the weather and climate of the Northern Hemisphere (RIA)	15 M€ SC5 (*Climate*)
BG-11 (2017)	The effect of climate change on Arctic permafrost and its socio-economic impact, with a focus on coastal areas (RIA)	10 M€ SC5 (*Climate*)

European Commission
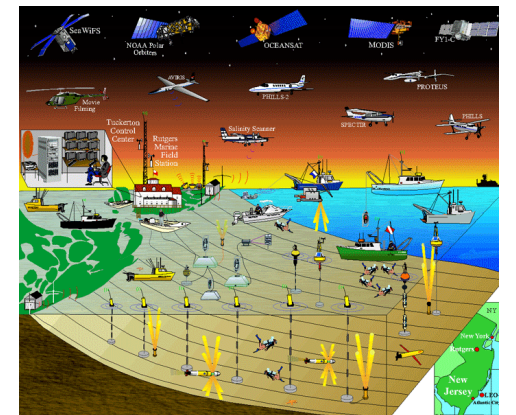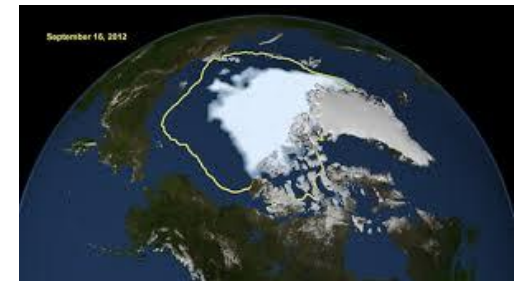
BG-12 (2016)	Towards an integrated Mediterranean Sea Observing System (RIA)	8 M€ SC2
BG-13 (2016)	Support to the BLUEMED Initiative: Coordination of marine and maritime research and innovation activities in the Mediterranean (CSA)	3 M€ SC2
BG-14 (2017)	Monitoring and assessing fish stocks, other pelagic species and habitats with an automated, non-invasive, opto-acoustic system (IA)	1.4 M€ SC2

H2020-**SMEInst**-26-2016-2017-BG	Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth	19,5 M€ SC2	

Polarcirkel Cages
Most plastic cages are moored in a grid system like this and include sinker tube, bird net stand, feed system/barge, cameras and sensors. The most popular models are the circular cages in 315, 400 and 500mm floating pipes with circumferences from 90 – 160m.

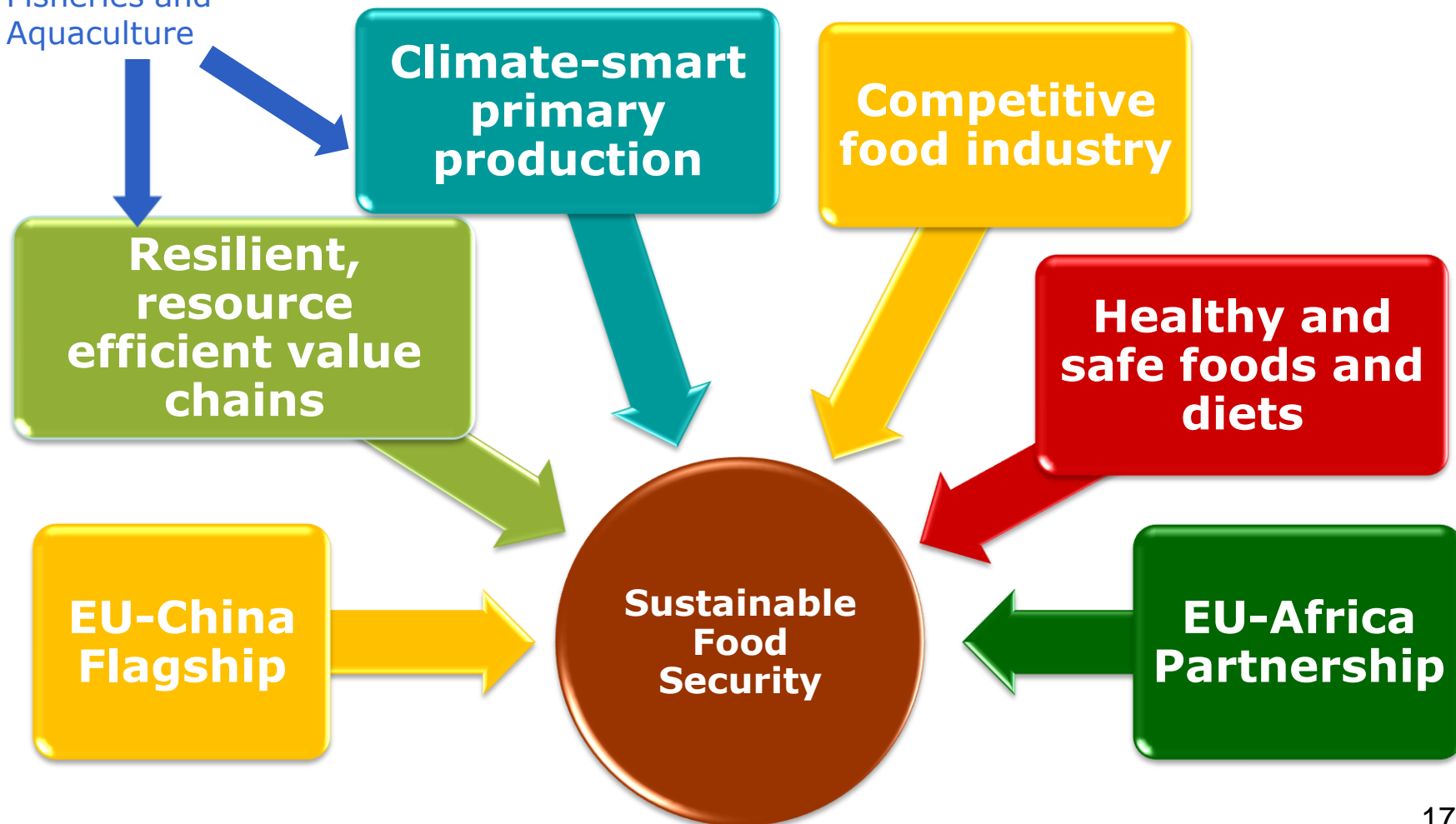## CROSS-REFERENCES BETWEEN BLUE GROWTH FOCUS AREA AND OTHER SC2 CALLS

Synergies and/or complementarities will be welcome across projects selected for funding within Societal Challenge 2 for example between those in <u>Blue Growth Focus Area (BG)</u> and <u>Rural Renaissance</u> (RUR) call tackling domains like healthy oceans and seas for healthy people

e.g. "BG-8-2016: Innovative sustainable solutions for improving the safety and dietary properties of seafood"

in connection with new approaches towards policies and governance

e.g. "RUR-2-2017: Coastal-rural interactions: Enhancing synergies between land and sea-based activities".

Topics on Fisheries and Aquaculture

Climate-smart primary production

Competitive food industry

Resilient, resource efficient value chains

Healthy and safe foods and diets

EU-China Flagship

Sustainable Food Security

EU-Africa Partnership

17

SFS 20 (2017)	Towards a science-based regionalisation of the Common Fisheries Policy (RIA)	6 M€
SFS 21 (2016-2017)	Advancing basic biological knowledge and improving management tools for commercially important fish and other seafood species (RIA)	10 M€
SFS 22 (2017)	Smart fisheries technologies for an efficient, compliant and environmentally friendly fishing sector (IA)	6 M€
SFS 23 (2016)	Improving the technical performance of Mediterranean aquaculture (RIA)	7 M€
SFS 24 (2016)	Reinforcing international cooperation on sustainable aquaculture production with countries from South-East Asia (CSA)	2 M€
SFS 32 (2017)	Promoting and supporting the eco-intensification of aquaculture production systems: inland (including fresh water), coastal zone and offshore (RIA)	12 M€

Links with other parts of Horizon 2020

Societal Challenges:

- **SC3 (Energy):** 2 topics on <u>ocean energy</u> under Competitive Low Carbon Energy call & mentions across other 9 others.

- **SC4 (Transport):** 2 topics on <u>waterborne transport</u> under Mobility for Growth & mentions in 6 others.

- **SC5 (Climate):** 4 topics under Climate Services encompassing <u>oceanic measurements, ocean climate, coastal areas, and plastic-free seas and oceans</u>.

Leadership in Enabling Technologies LEIT- NMBP:

• Two topics on materials for buildings and infrastructure including <u>offshore</u> and on <u>biotechnology</u> opportunities for industry.

and other relevant parts of H2020 like Research Infrastructures

Marine topics in other Societal Challenges

LCE-15-2016	Scaling up in the ocean energy sector to arrays (IA)	10-15 M€
LCE-16-2017	2nd generation of design tools for ocean energy devices and arrays development and deployment (IA)	5-7 M€
LCE-26-2016	Cross-thematic ERA-NET on applied geosciences	10 M€
MG-2.1-2017	Innovations for energy efficiency and emission control in waterborne transport (IA)	5 - 9 M€
MG-2.4-2017	Complex and value-added specialised vessels (IA)	8 - 12 M€
CULT-COOP-07-2017	Cultural heritage of European coastal and maritime regions (RIA)	2.5 M€
SEC-BES7-2016	Data fusion for maritime security applications (RIA)	4 – 6 M€
SEC-BES8-2016 & 2017	PCP of systems to support maritime security	8 – 12 M€

Research Infrastructures

Sample Topics
Marine biological stations
Research infrastructures for research on biomass conversion and biorefinery
Research infastructures for offshore renewable energy
Research infastructures for terrestrial research in the Arctic
Mesocosms facilities for research on marine and freshwater ecosystems
Multidisciplinary marine data centres for ocean and marine data management
GÉANT Partnership Projects (b) Trans-Atlantic submarine cable
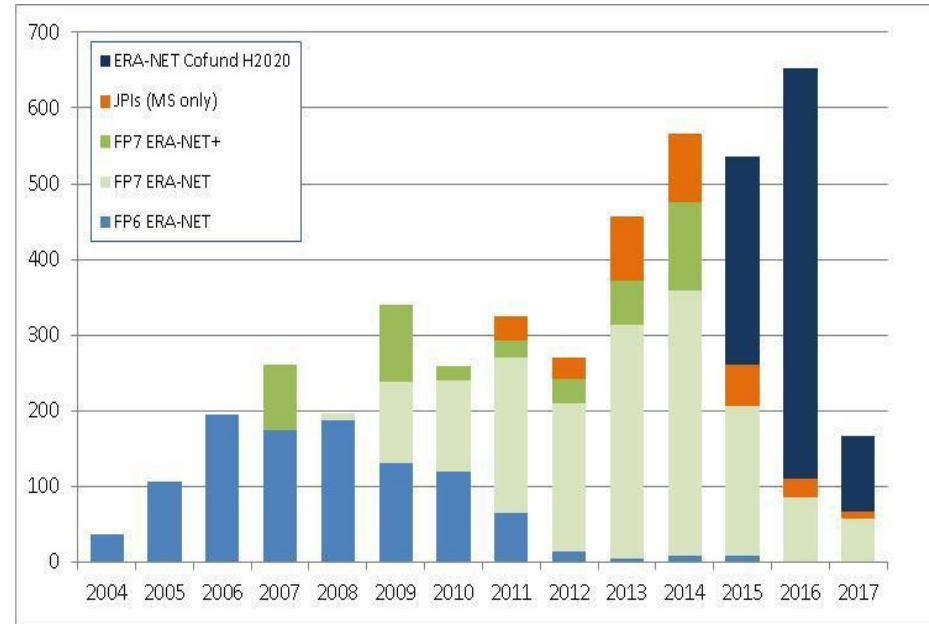
ERANET COFUND

- Public-Private Partnerships in the Bioeconomy

- – Organic farming and food production
- – Sustainable food production and consumption
- – A knowledge platform for the intestinal microbiome

– **Marine Technologies**

Success rates: new rule for two-stage calls

- **In 2014- 2015 calls**, low success rates at second stage level

- Introduction of **dynamic threshold** in the first stage evaluation (see General Annexes of Work Programme 2016- 2017):

    Intention: to get a number of proposals which represent approximately 3 times the available budget to second stage.

Blue Growth

H2020-BG-2016-1 call closed on the 17th February 2016. 47 proposals were submitted in response to this call. Evaluation results are expected to be communicated in June 2016.

BG-01-2016 IA: 18 proposals – Algae biorefinery
BG-02-2016 IA: 9 proposals – Vessel design
BG-03-2016 CSA: 8 proposals – Multiuse offshore space
BG-05-2016 ERANET: 2 proposals – Marine Technologies co-fund
BG-09-2016 RIA: 2 proposals – Arctic Observing System
BG-10-2016 RIA: 4 proposals – Impact changes Arctic weather & climate
BG-13-2016 CSA: 4 proposals – Support to the BlueMed initiative

H2020-BG-2016-2 call closed on the 17th February 2016
BG-12-2016 RIA: 4 proposals – Mediterranean Observing System

2 proposals reached second stage

European Commission

Irish researchers won €2.2m in H2020 funding in marine related topics in 2015, which represents an overall take of 4.6% of the available budget.

8 proposals with Irish partners were submitted to the Blue Growth topics, with 15 Irish participants. Of those, 2 projects were successfully funded with 5 Irish partners. This represents an average 10% success rate for Irish researchers in Blue Growth, rising to 17% for individual topics.

Within the Sustainable Food Security topics, 2 proposals (out of a total of 5) were submitted with 2 participants from Ireland. Both projects were funded, representing a success rate of between 33-50% for individual topics.

Programming Cycle

European Commission

EXTERNAL ADVICE and SOCIETAL ENGAGEMENT

EC

MEMBER STATES

| EXTERNAL STAKEHOLDERS | ADVISORY GROUP | RTD & AGRI | Horizon Group (Policy DGs) | Programme Committee (Strategic) | Programme Committee (SC2) |

2016   QUESTIONNAIRE   **2016**

QUESTIONNAIRE, Workshop   **REPORT**

Scoping paper

CONSULTATION

CONSULTATION   CONSULTATIONS

Strategic Programme

2017

Work Programme 2018-2020

2017

CONSULTATION

Financial Supports

Enterprise Ireland – Coordination grant and Travel Supports

Intertrade Ireland: H2020 Travel Scheme

SFI: Conference and Workshop grants

Marine Institute:

Subscribe to funding calls

Networking and Travel Initiative

European Commission:

Register as an expert evaluator

Thank you for your attention

Horizon 2020 website -
http://www.horizon2020.ie/

http://ec.europa.eu/programmes/horizon2020/

Fiona.grant@marine.ie