



H2020 Societal Challenge 2 Funding opportunities for Research and innovation under Work Programme 2016-2017

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

Alexia Rouby – InfoDay H2020 - Lisbon – 13/10/2015



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- ✓ Four challenges
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3. Societal Challenge 2 in other calls

4. Good practices and critical success factors for applications

- ✓ Some tips
- ✓ Evaluation criteria
- ✓ Resources for applicants

The challenges and the Calls



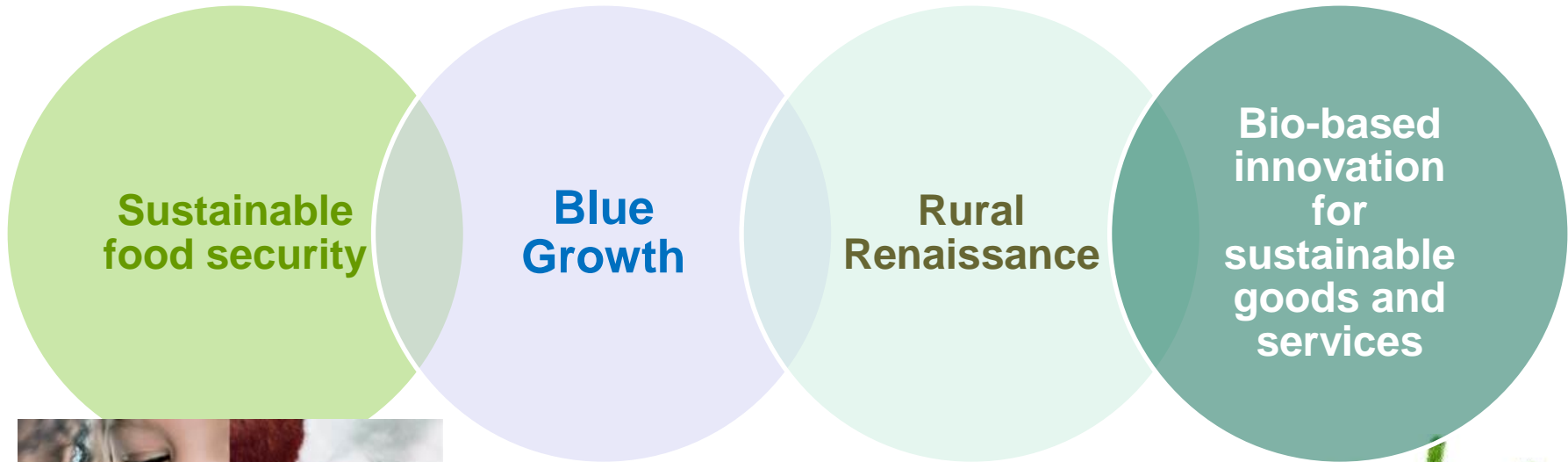
Horizon 2020 work programme 2016-2017: Proposing solutions to global challenges

- **Feed 9 billion people by 2050** by improving farming and food systems' capacity to sustainably supply sufficient and healthy food
- **Unlock the potential of seas and oceans** which cover 70% of the Earth's surface and host 50% of known species
- **Raise the sustainable growth potential of rural areas** and their ability to cope with demographic, climatic and economic change
- **Boost bio-based markets** to create for example over 3% growth/year in the bio-based chemistry sector

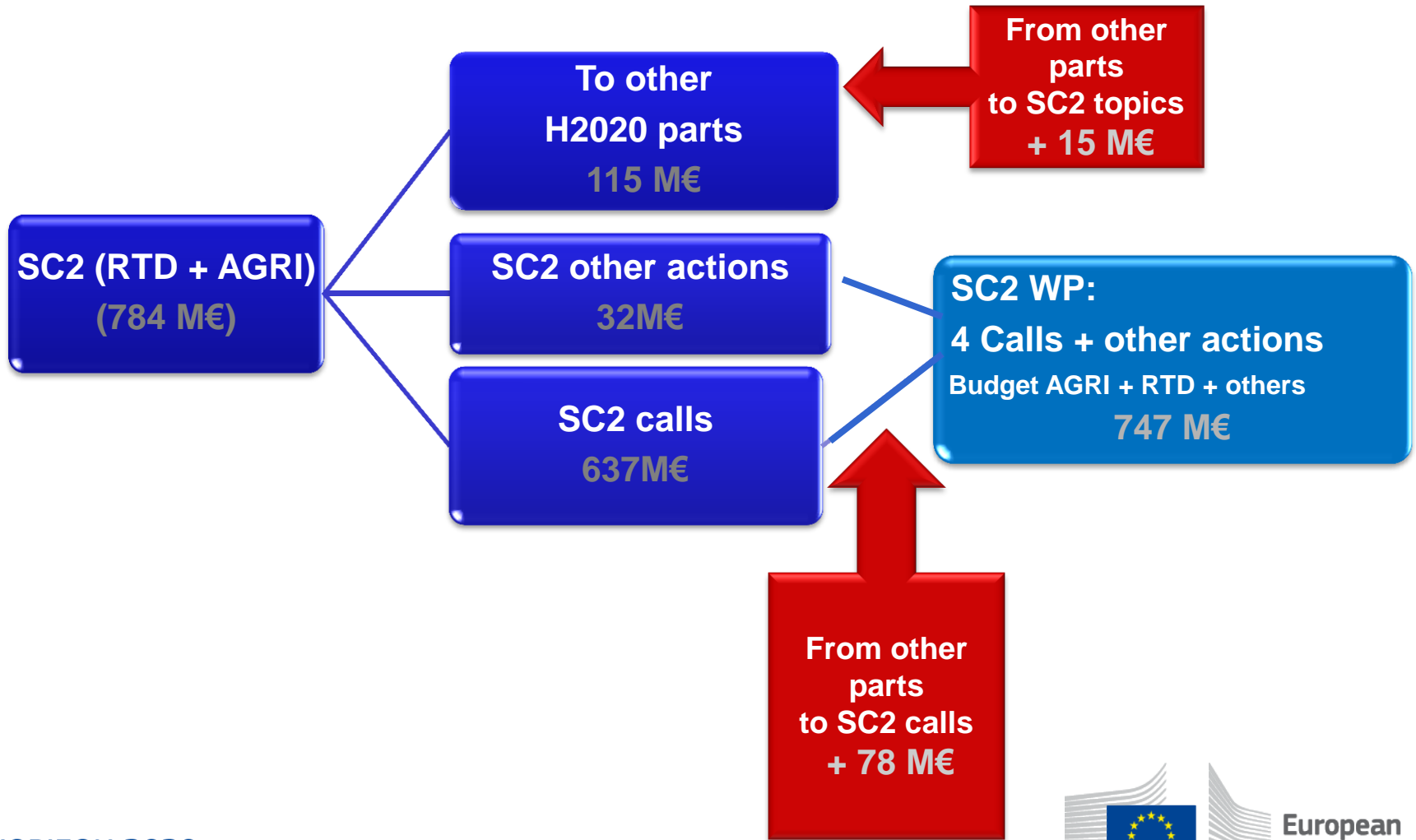
Horizon 2020 work programme 2016-2017: Four core objectives

- **Ensure food and nutrition security by fostering resilient and resource efficient** primary production and industry as well as **sustainable and healthy consumption**
- **Demonstrate the innovative potential of the Oceans** by bringing technology to market
- **Foster innovation and business opportunities for rural and coastal areas** through new territorial approaches and business models
- **Re-industrialise Europe** through new bio-based value-chains, securing sustainable biomass

Four Societal Challenge 2 Calls

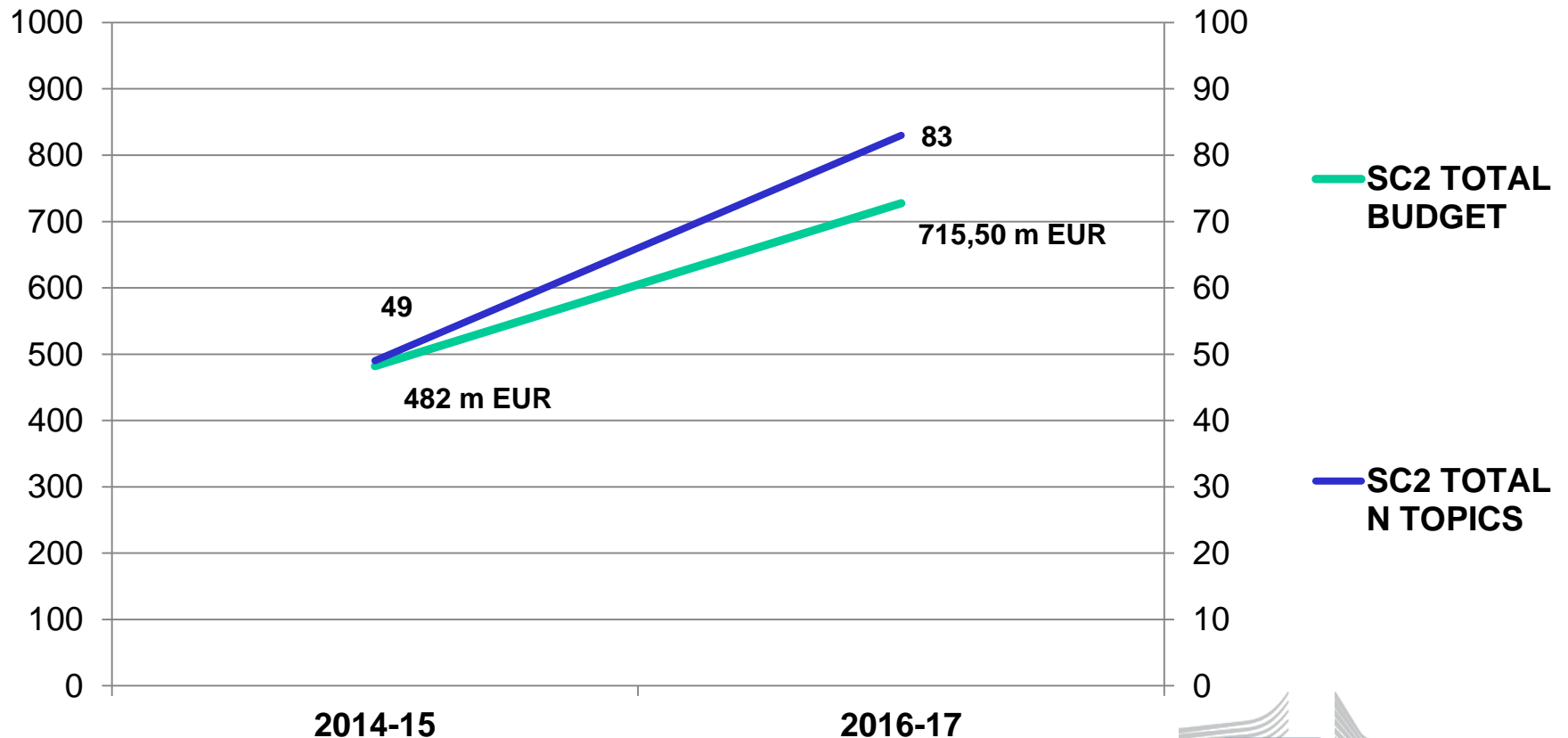


Societal Challenge 2 2016-17 Budget



SC2 Topics & Budget change: 2014-15 to 2016-17

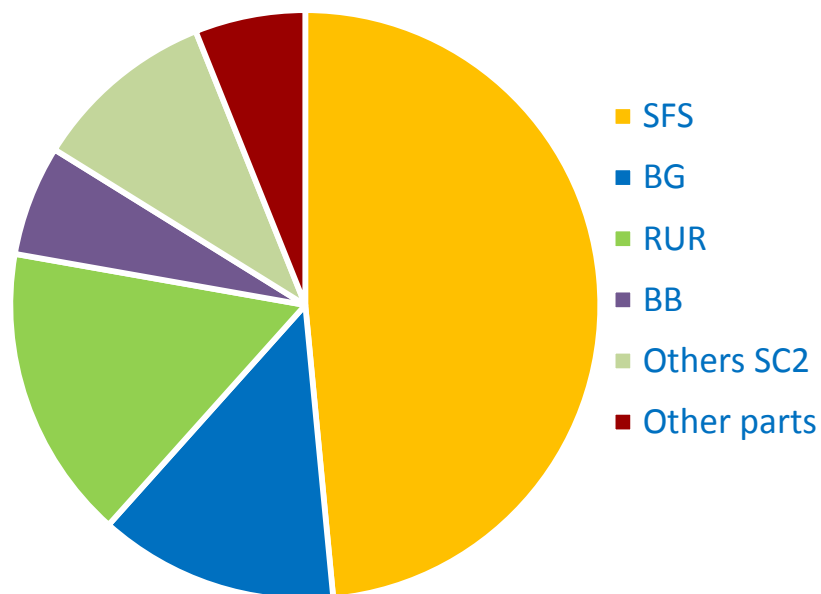
Societal Challenge 2 calls: 4 Calls, 83 topics, 715.5M €



Topic distribution and budget distribution between calls

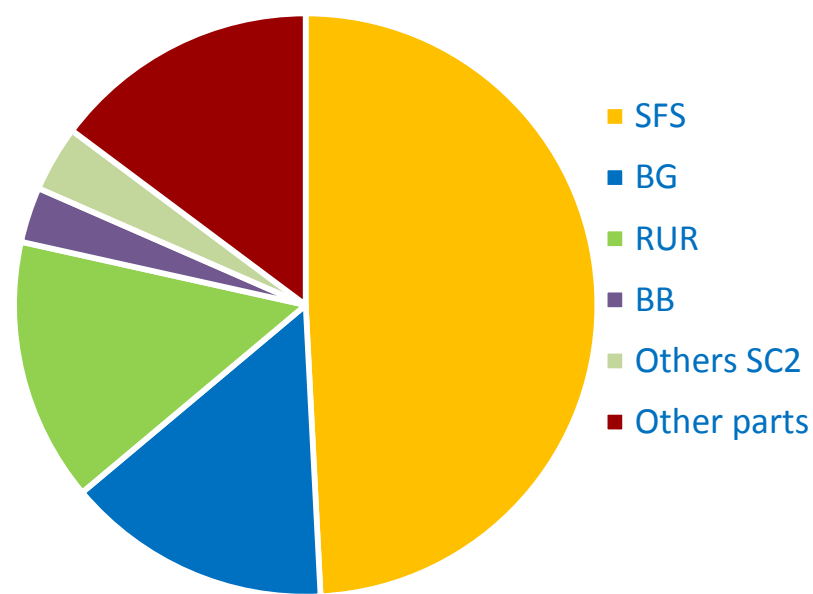
Topics

(including other contributions)



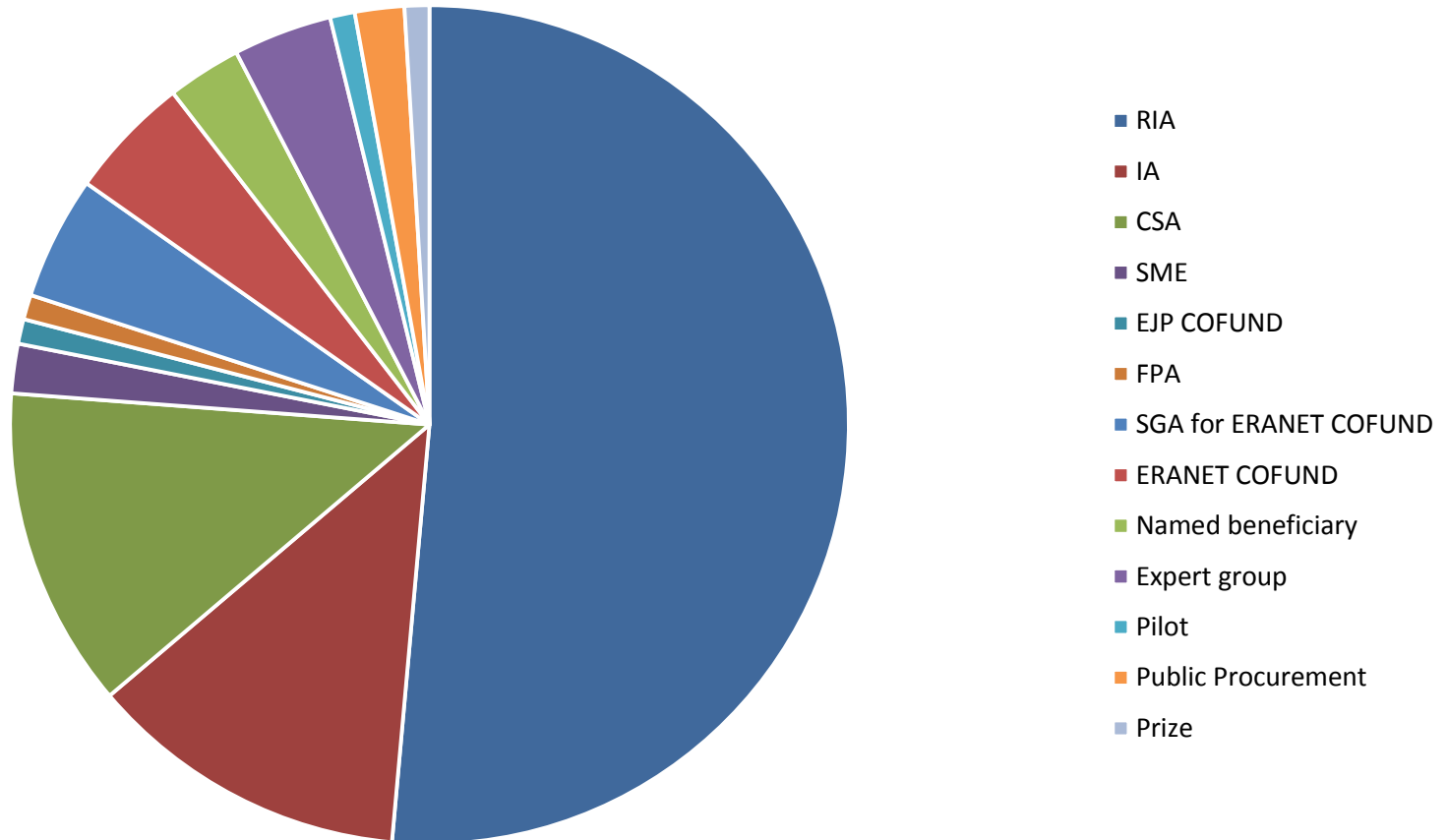
Budget

(including other contributions)



Instruments: a varied landscape

Types of actions under Societal Challenge 2



Four societal challenge 2 calls





Focus Area Call

Sustainable Food Security - Resilient and resource efficient value chains (SFS)

431 M€ to ensure sufficient, safe and nutritious food for all while safeguarding natural resources



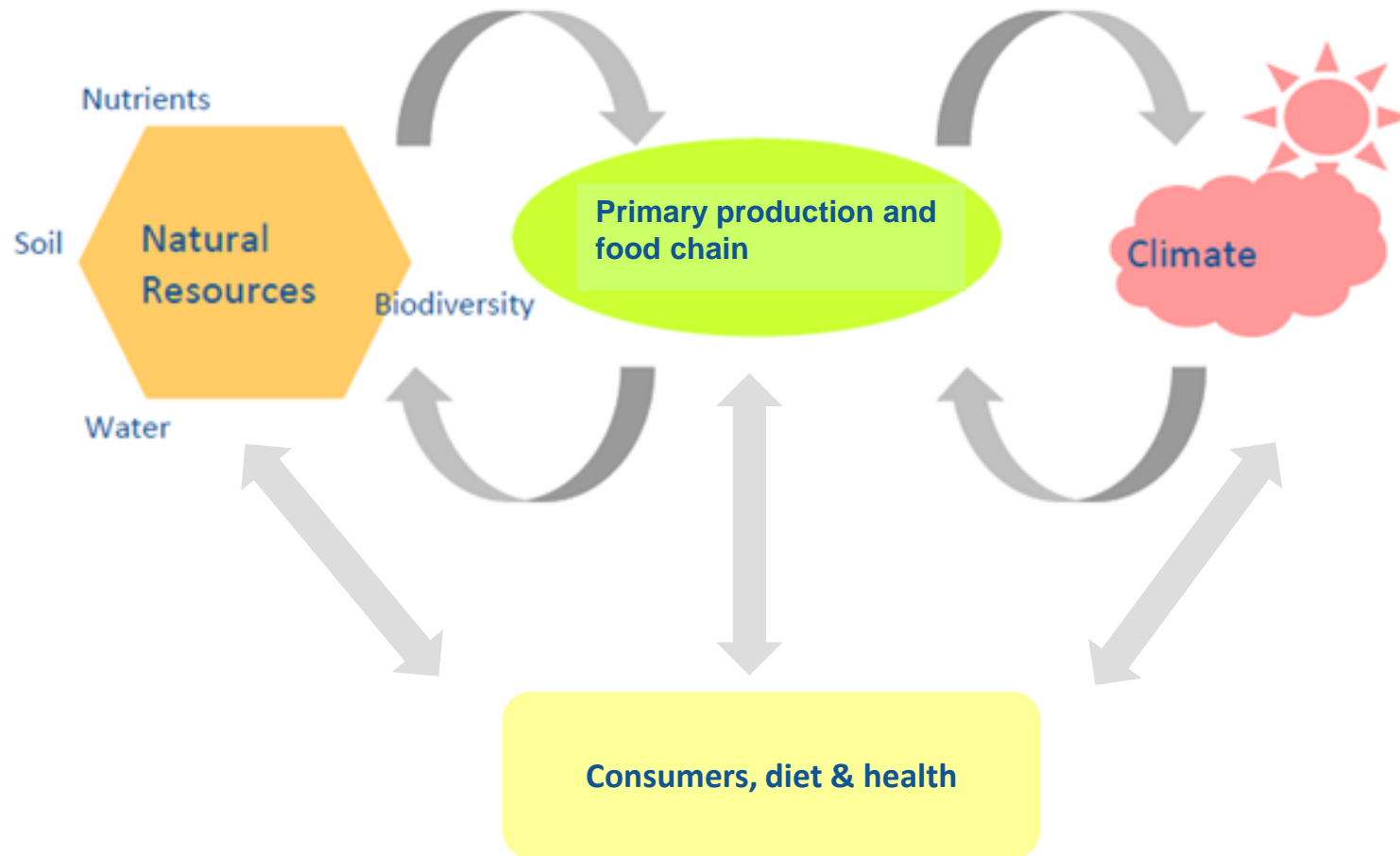
Sustainable Food Security call

€ 431,5 million budget split in six areas to:

- ➔ Improve farming and food systems' capacity to sustainably supply sufficient and healthy food to 9 billion people
- ➔ Ensure global sustainable food and nutrition security



The Sustainable Food Security call at a glance



Sustainable Food Security: our daily bread
€ 431,5 million to ensure sufficient, safe and good food for all while safeguarding natural resources



Putting nature- and resource-based approaches at the heart of research investments



Focusing on climate smart agro-food chains

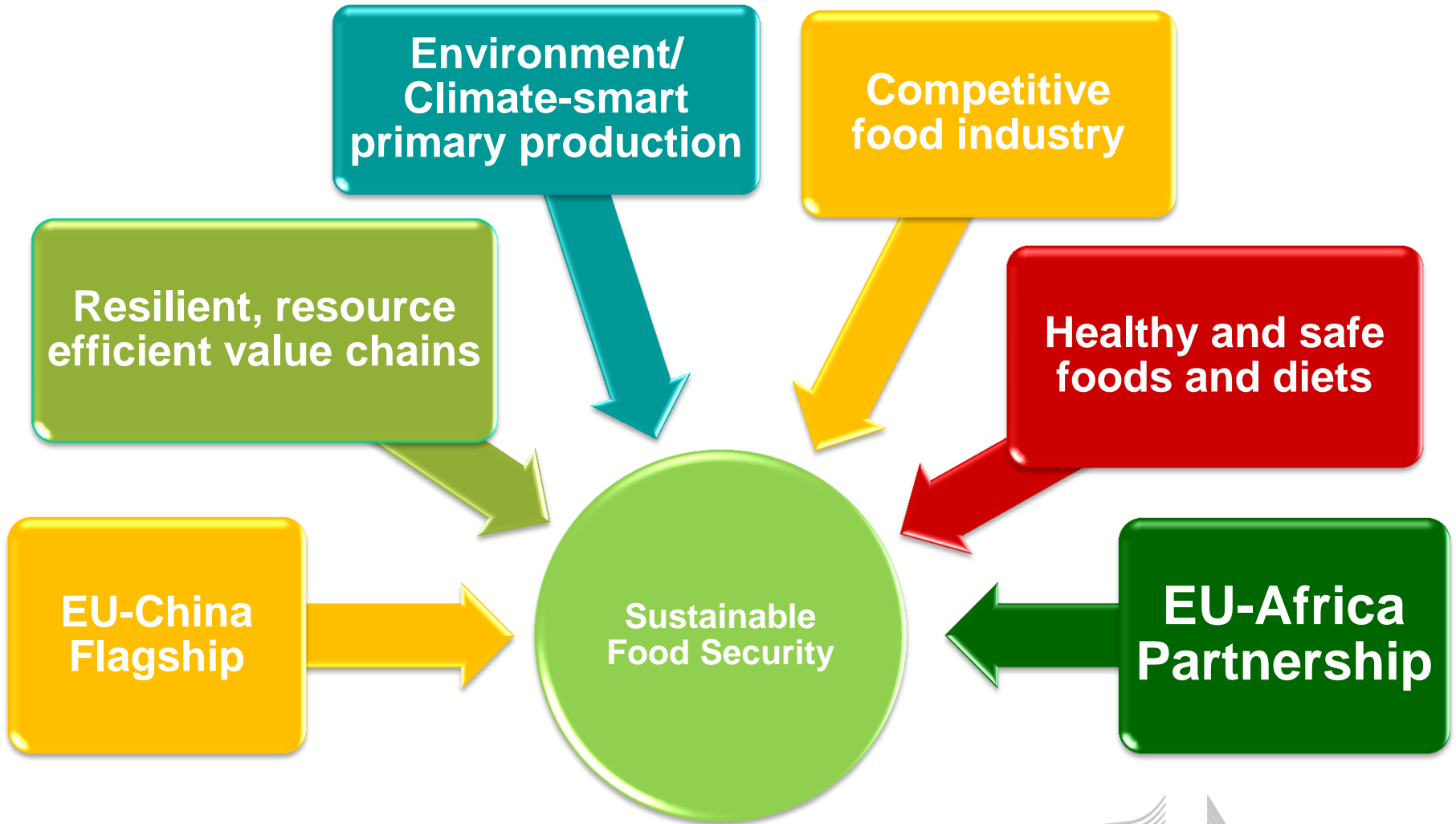


Putting nutritious and healthy food from land and seas on our plates

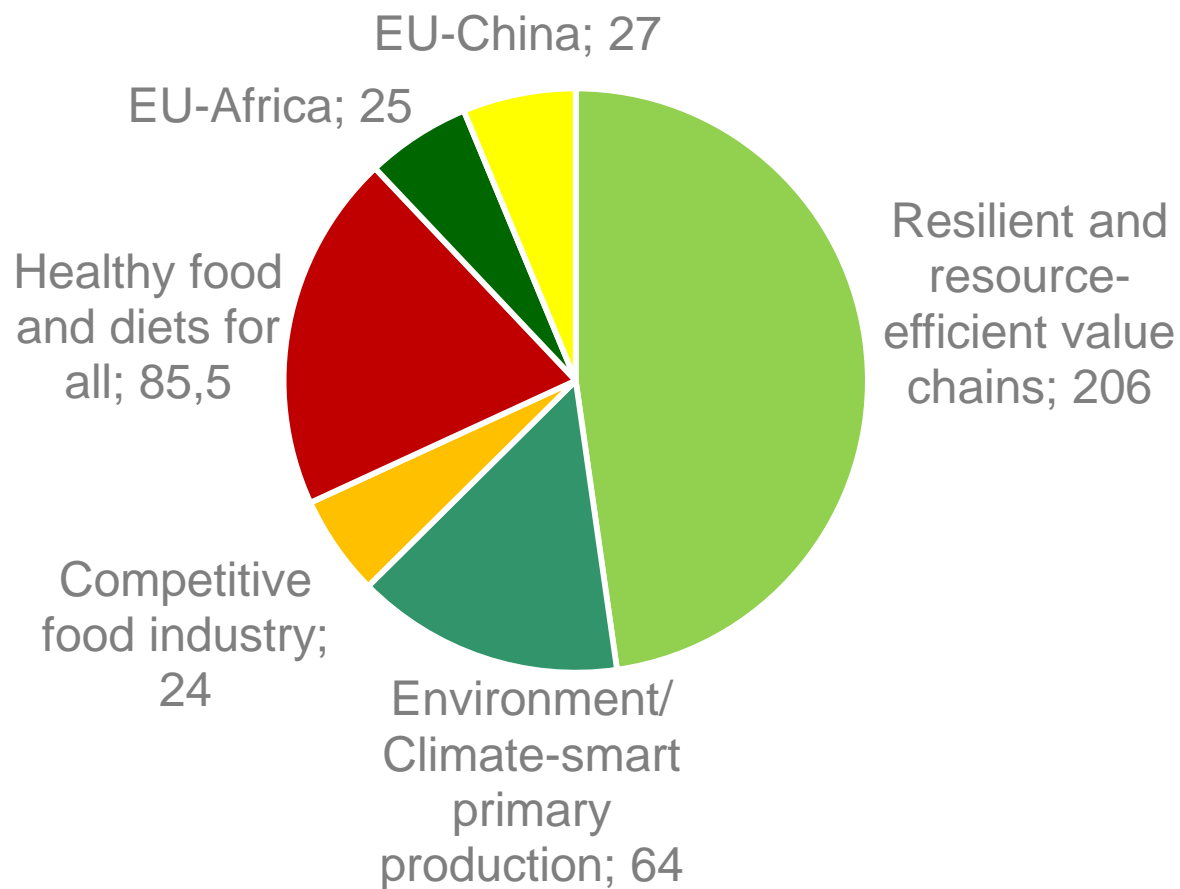


Going global: 52 M€ for joint actions with Africa and China

Sustainable Food Security : 6 areas



Budget distribution within the call (M€)



Resilient, resource-efficient value chains

25 topics – 206 M€

- **Abiotic stresses** (water, nutrients) and efficient resource use
- **Biotic stresses** (Plant and animal health; IPM approaches; diagnostic tools; bee health)
- **Operationalising the resilience concept** (diversity; genetic resources, plant and animal breeding)
- **Optimising/reducing use of (critical) inputs** (robotics (CNECT), weeding, pesticides)
- **Specific actions for organic farming**
- **Sustainable fisheries and aquaculture management**

+ **ERANETs + SME**



Environment and climate-smart primary production



7 topics – 64 M€

- **Carbon and nitrogen cycling in agro-ecosystems**
- **Specific agro-ecological production systems** (legumes, grassland)
- **Ecosystem services** (soil based, pollination, pest predators, economics of ES)
- **Socio-economics, demography and resilience of farms**

+ **ERA-NETs**



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Competitive food industry



3 topics – 24 M€

- **Understanding Food value chain dynamics**
- **Innovative agri-food chains**
- **Sustainable Food packaging**

+ **ERA-NET + SME**



© Thinkstock

Healthy and safe foods and diets for all

5 topics – 85,5 M€

- Co-fund on "One Health" (zoonoses – emerging threats);
- The impact of consumer practices in food safety
- Impulsivity and compulsivity and the link with nutrition, lifestyle and the socio-economic environment
- How to tackle childhood obesity?
- Sweeteners and sweetness enhancers

+ *ERA-NETs*



EU-Africa Partnership



3 topics – 25M€

- ERANET Cofund
- Innovation for promoting food and nutrition security and sustainable agriculture in Africa
- Earth observation services for the monitoring of agricultural production in Africa



EU-China Flagship initiative

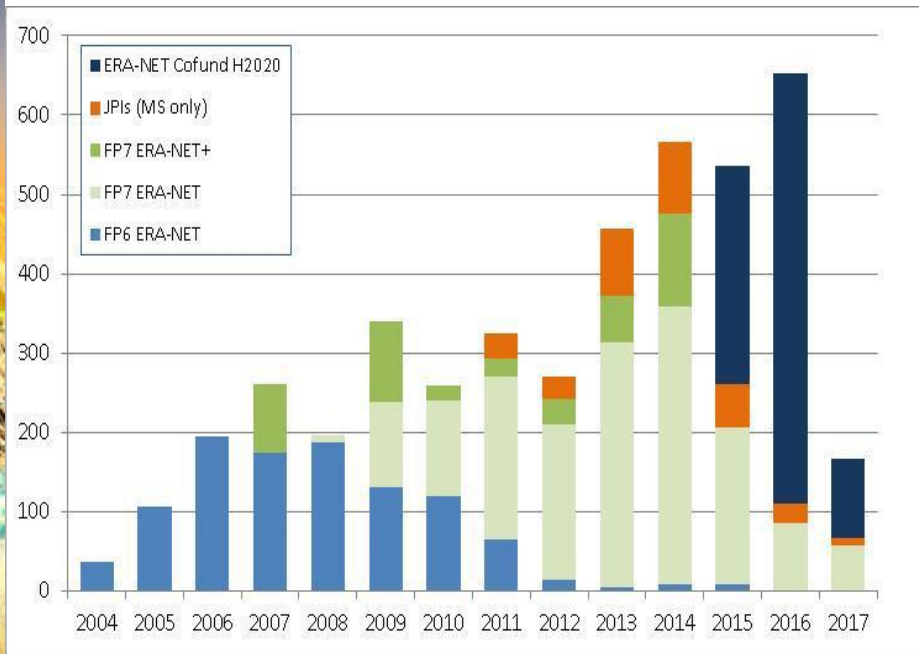


5 topics – 27 M€

- **Soil and water-use efficiency in agriculture**
- **Plant breeding of protein crops**
- **Resource-efficient Urban agriculture**
- **Welfare and environmental friendly livestock production systems**
- **Traceability of processed food products**



ERA-NETs 2016

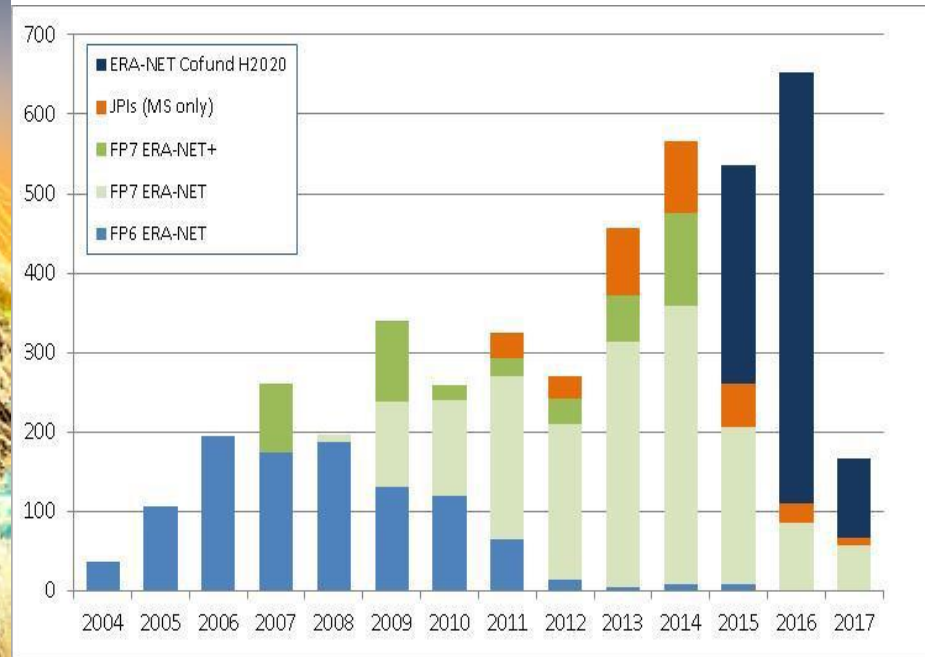


Public-Public Partnerships in the Bioeconomy

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

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

ERA-NETS 2017



OTHER-2: Specific Grant Agreements for ERANET Cofund Actions

supporting Joint Actions towards Public-Private Partnerships in the Bioeconomy

- **A - Sustainable crop production**
- **B - Innovative forest-based bioeconomy**
- **C - GMO research**
- **D - Nutrition/epigenome**
- **E - Plant molecular factory**

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Focus Area Call

Blue growth (BG)



129 M€ to demonstrate the innovation potential of the oceans



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Blue growth at a glance: scope



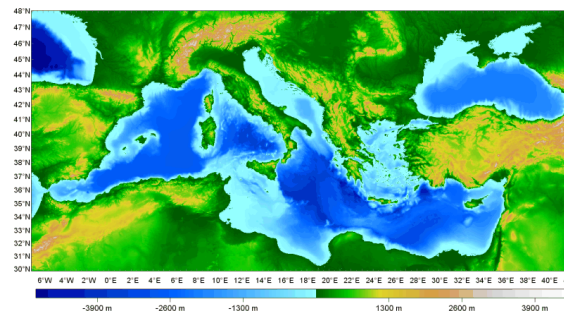
Offshore



Cleaning the Sea



The Med Initiative

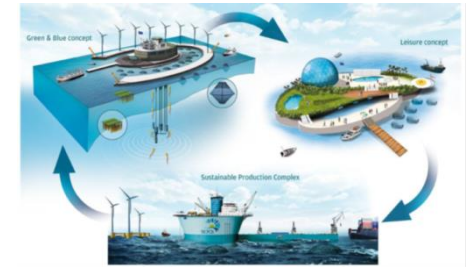


Blue growth at a glance: political opportunities

A - Demonstrating the **innovation potential** of seas and oceans for new jobs, growth and investments



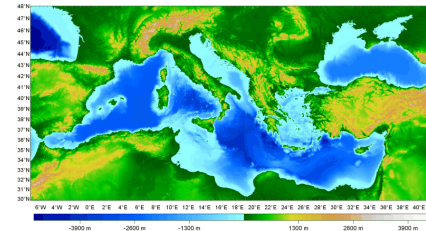
Offshore



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

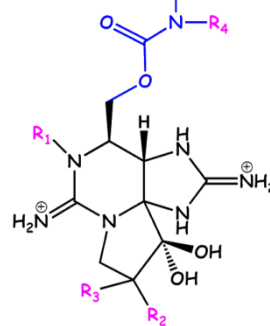


The Med Initiative



C. Engaging with citizens through **ocean literacy**

New marine toxins



New medicines



Cleaning the Sea



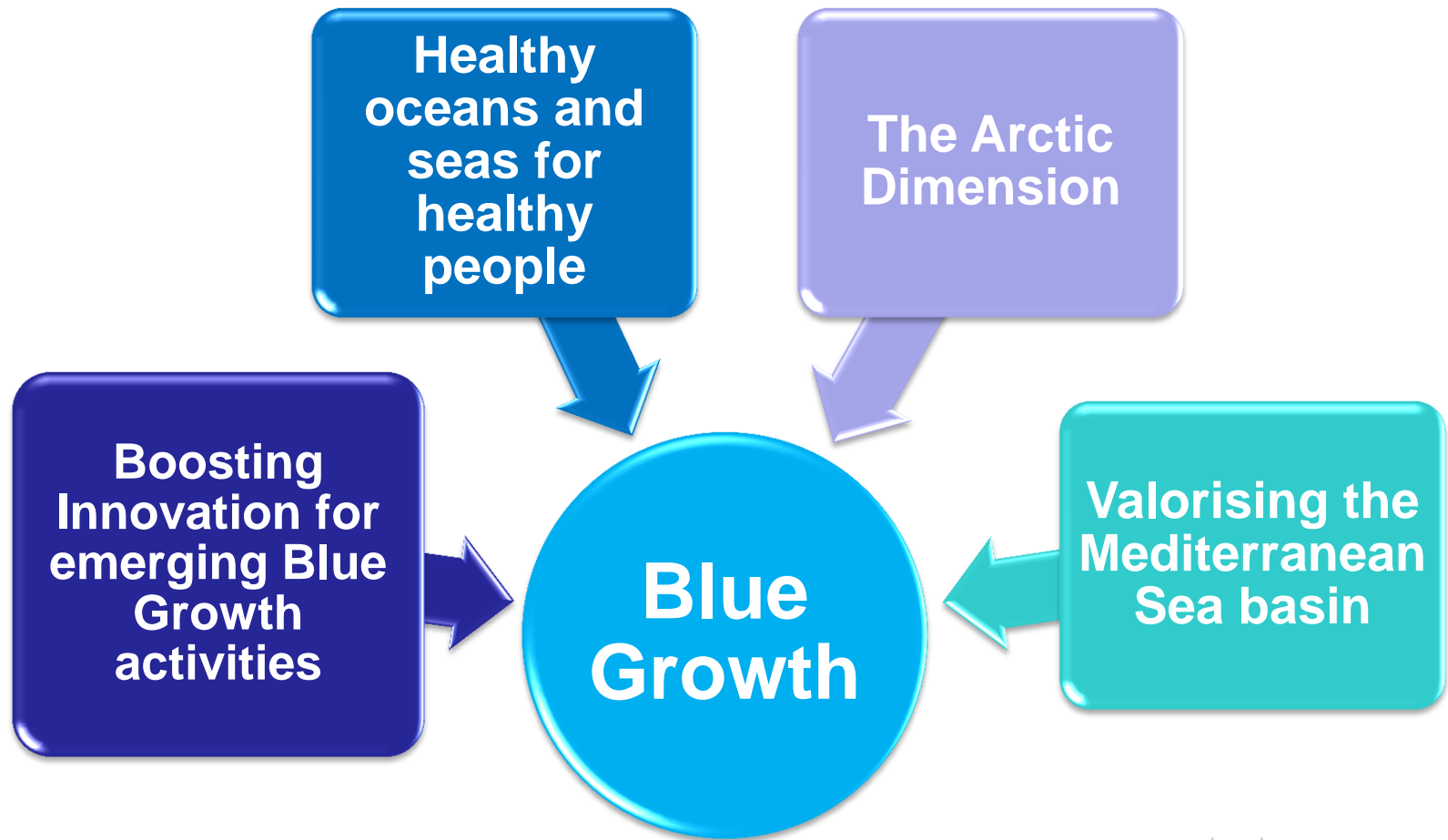
Blue Growth

€ 129 million to demonstrate an ocean of opportunities

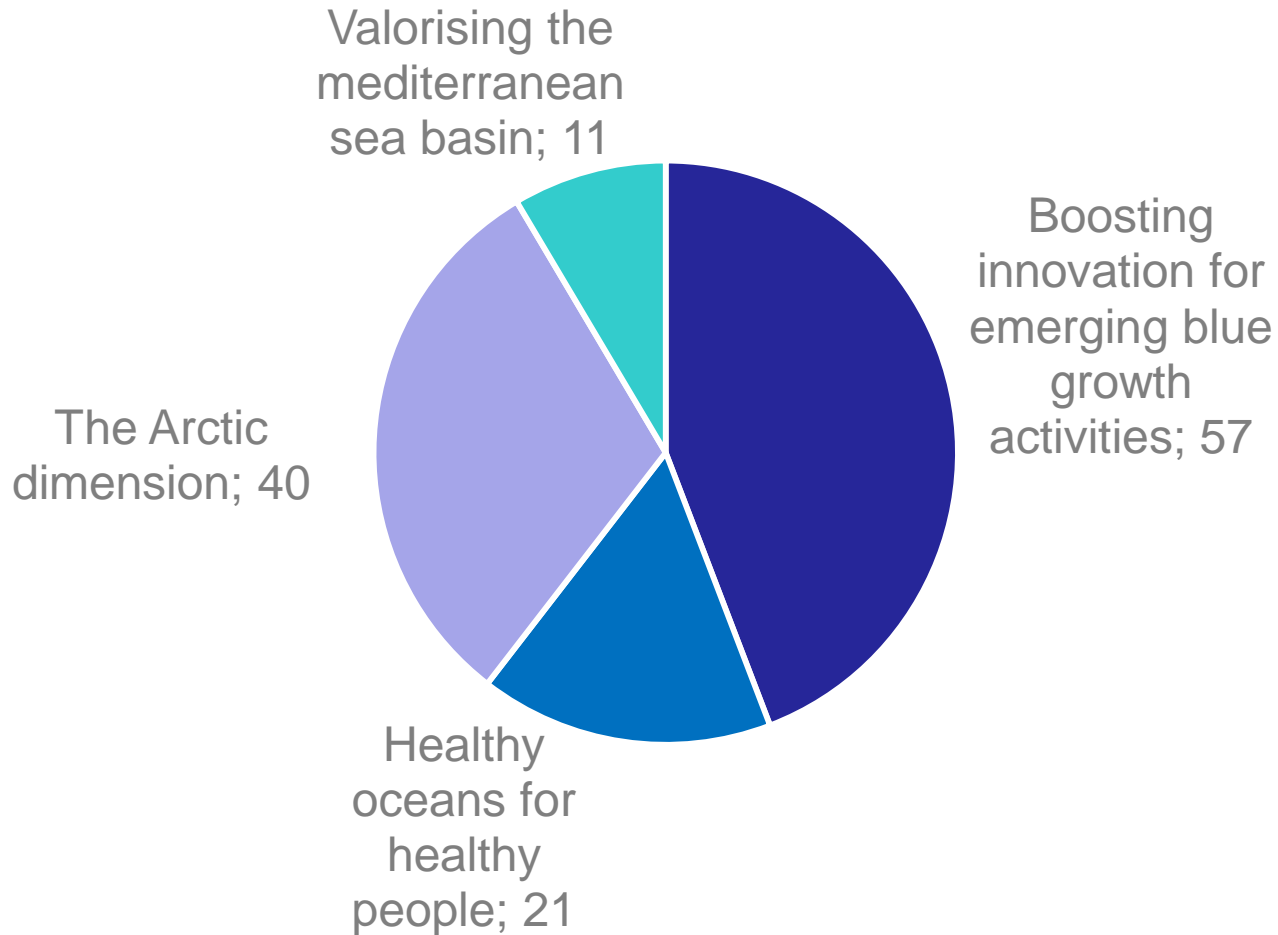
- **Demonstrate the innovative potential of the oceans by bringing technologies to the market**
- **Ensure a healthy ocean for healthy people**
- **Seize the opportunities of integrated sea basin Strategies (the Mediterranean and the Arctic)**



Blue Growth: 4 areas



Budget distribution within the call (M€)



Boosting Innovation for emerging Blue Growth activities



5 topics – 57 M€

BG1	Large-scale integrated algae biorefineries (IA)	22 M€ SC2
BG2	High value-added specialised vessel concepts enabling more efficient servicing of emerging coastal and offshore activities (IA)	15 M€ SC4
BG3	Multi-use of the oceans marine space, offshore and near-shore: compatibility, regulations, environmental and legal issues (CSA)	2 M€ SC3
BG4	Multi-use of the oceans marine space, offshore and near-shore: enabling technologies (IA)	8 M€ SC2
BG5	ERANET COFUND on marine technologies	10 M€ SC2, SC4 + LEIT/KETs



Healthy oceans and seas for healthy people

3 topics – 21 M€

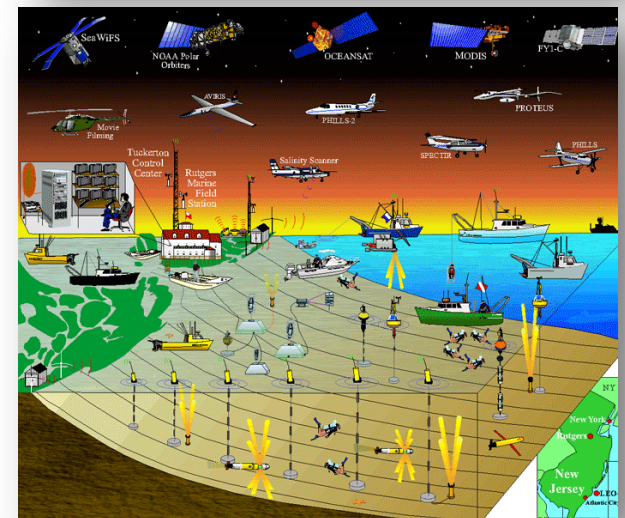
BG6	Interaction between humans, oceans and seas: a strategic approach towards healthcare and wellbeing (CSA)	2 M€ SC2
BG7	Blue green innovation for clean coasts and seas (IA)	12 M€ SC2
BG8	Innovative sustainable solutions for improving the safety and dietary properties of seafood (IA)	5 M€ SC2



The Arctic Dimension

3 topics – 40 M€

BG9	An integrated Arctic Observing System (RIA)	15 M€ SC5
BG10	Impact of Arctic changes on the weather and climate of the Northern Hemisphere (RIA)	15 M€ SC5
BG11	Climate impacts on Arctic permafrost and its socio-economic impact, with a focus on coastal areas (RIA)	10 M€ SC5



Valorising the Mediterranean Sea basin



2 topics – 11 M€

BG12	Towards an integrated Mediterranean Sea Observing System (RIA)	8 M€ SC2
BG13	Support to the Blue Med Initiative: Coordination of marine and maritime research and innovation activities in the Mediterranean (CSA)	3 M€ SC2



Marine & Maritime Research in other parts of H2020

SOCIETAL CHALLENGES:

- **SC3 (Energy):** 2 topics on ocean energy under Competitive Low Carbon Energy call & mentions across other 8 others.
- **SC4 (Transport):** 2 topics on waterborne transport under Mobility for Growth & mentions in 6 others.
- **SC5 (Climate):** 4 topics under Climate Services encompassing oceanic measurements, ocean climate, coastal areas, and plastic-free seas and oceans.

LEIT- NMBP

- Two topics on materials for buildings and infrastructure including offshore and on biotechnology opportunities for industry.

and other relevant parts of H2020



Call Rural renaissance : Fostering innovation and business opportunities (RUR)



*128M€ to grasp promising opportunities to
boost rural growth and jobs*



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Rural renaissance at a glance: what is it about?

- Opportunities for **sustainable rural growth**...
 - ... looked at through **integrated approaches**...
 - ... cutting **across sectors**...
 - ... taking a **territorial perspective**...
-
- ... with the ambition to:
 - **modernize** policies & governance
 - **foster** new business development
 - **boost** innovation, co-creation and exploitation of knowledge
 - **enhance** social and human capital



Rural Renaissance call

€ 128 million to:



Grasp promising opportunities to boost rural growth and jobs



Develop rural and coastal areas through new territorial approaches and business models



Rural renaissance: our territories

€ 128 million to grasp promising opportunities to boost rural growth and jobs



Invest in businesses:

47 M€ for new business models, new value chains and better connectivity



Invest in people:

49 M€ to boost innovation, co-creation and exploitation of knowledge by improving skills and innovation systems



Invest in better decision-making:

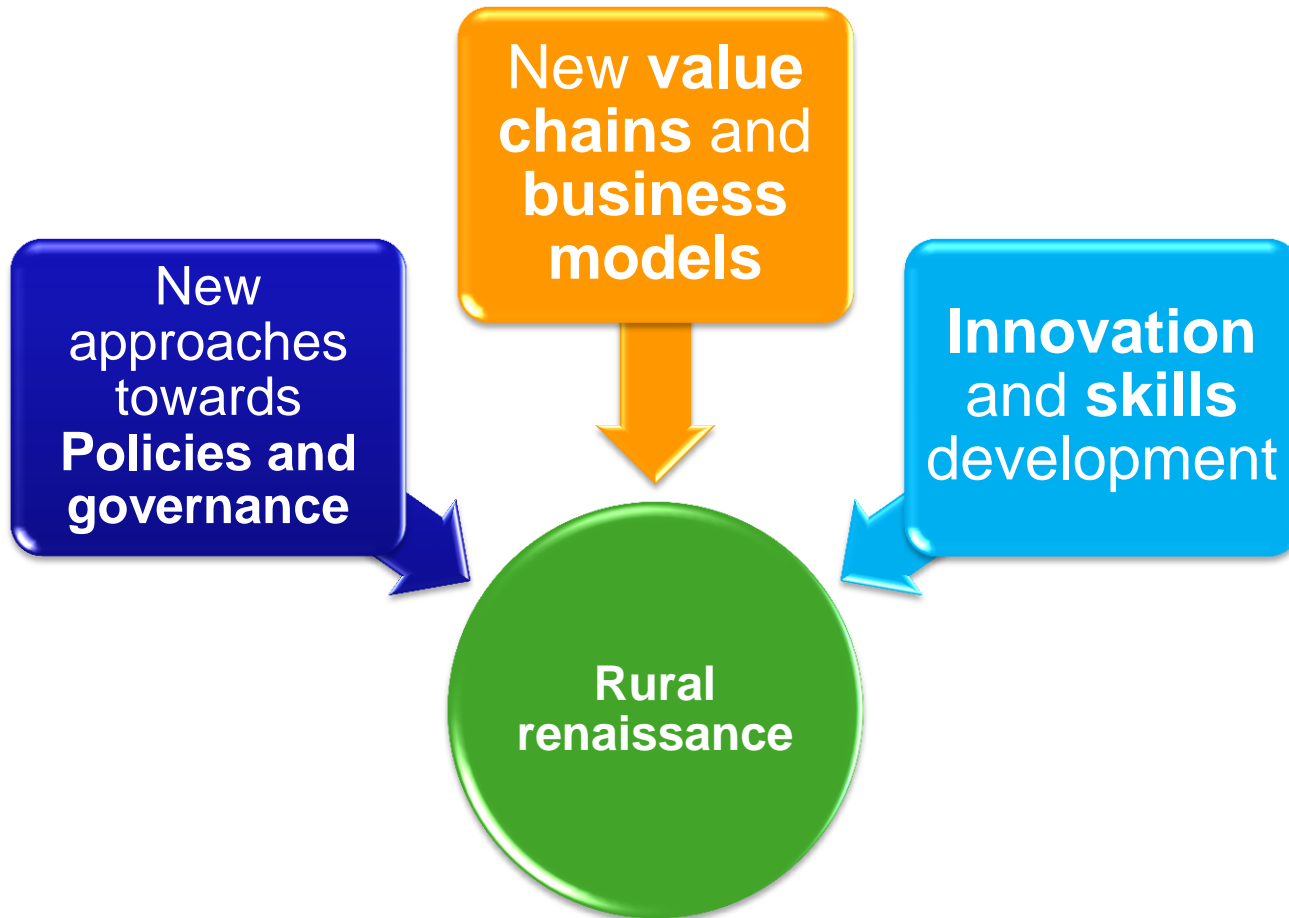
25 M€ to modernize policies and governance to make the most out of our resourceful territories sustainably



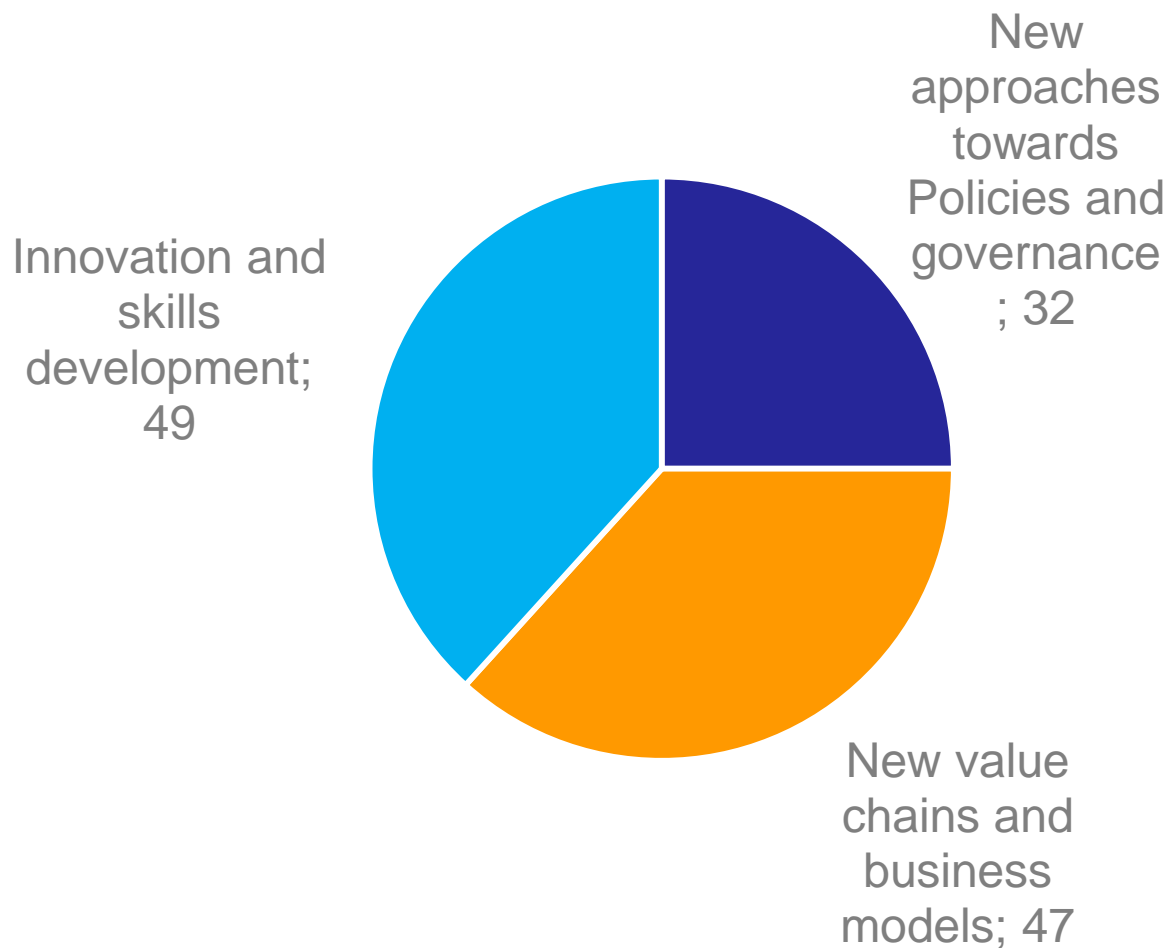
Help us to have it all:

more and better jobs, better environment, better social cohesion

Rural renaissance : 3 areas



Budget distribution within the call (M€)



New approaches towards policies and governance



5 topics – 32 M€

- **Territorial interactions:** enhance synergies, adapt policies, foster cross-sectorial cooperation
 - ✓ Rural-urban
 - ✓ Land-sea
- **'Towards 2030':** policies and decision tools for an integrated management of natural resources
- **Economic benefits from ecosystem services:**
 - ✓ Farming & drinking water
 - ✓ Forest ecosystem services (IA)



New value chains and business models



4 topics – 47 M€

- **Crop diversification systems** for delivery of food, feed, industrial products and ecosystem services
- Resource-efficient and profitable **industrial crops on marginal lands**
- Demonstration of **integrated logistics** for food and non-food applications
- **Business models** for modern rural economies



Innovation and skills development



7 topics – 49 M€

- **Thematic networks**
- **Experimental and demonstration farms:**
 - ✓ Mapping & linking
 - ✓ Thematic networks of demonstration farms
- Building a future **science and education system**
- **Advisors' role in agriculture knowledge and innovation systems (AKIS)**
- **Working together in EU countries where cooperation level is low**
- **Optimising interactive innovation projects and policies for innovation**





Call **Bio-based innovation for sustainable goods and services** (BB)



Bio-based Innovation for Sustainable Goods and Services CALL a global € 27 million budget to:



Boost bio-based markets to create over 3% growth per year in this sector and 90 000 jobs

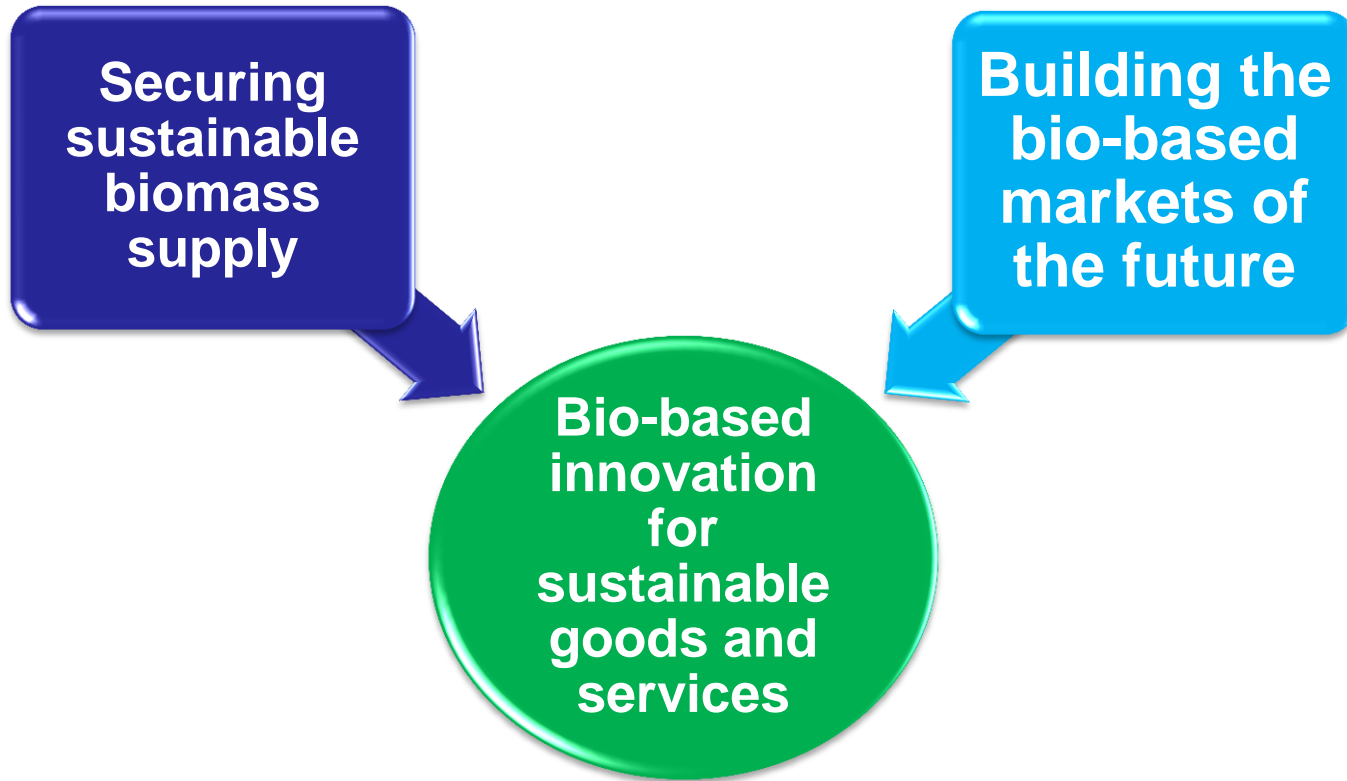


Re-industrialise the EU through new bio-based value chains, securing sustainable biomass

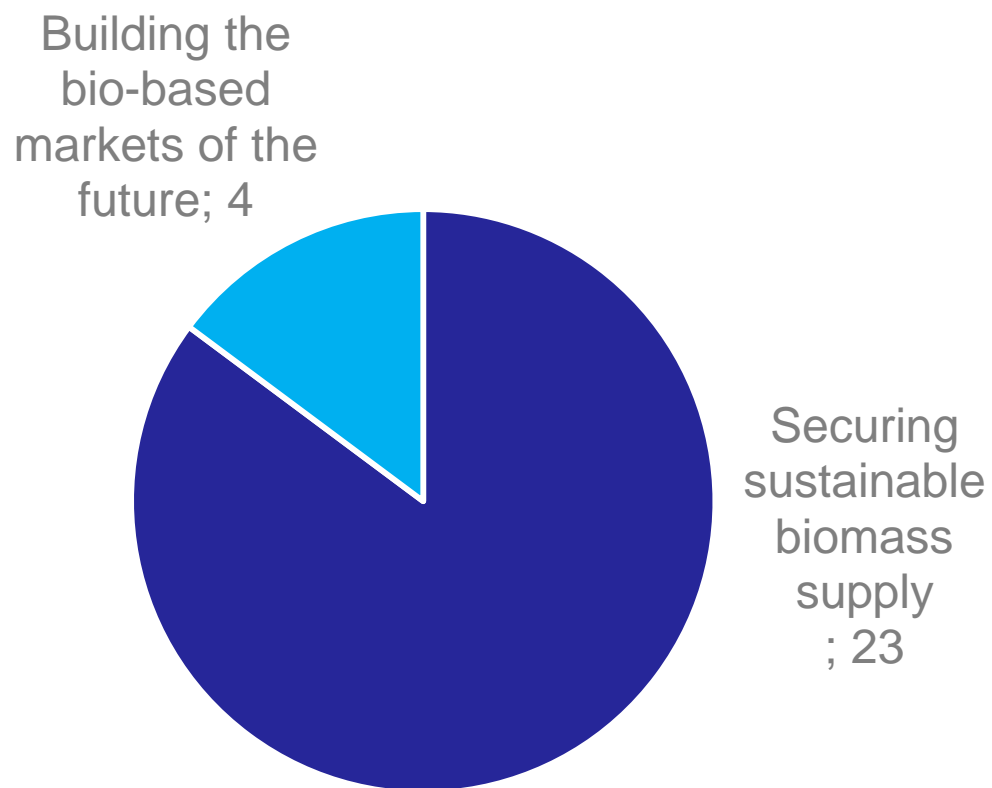
Activities of this call are complementary to the Joint Technology Initiative on Bio-based Industries 2016-17 Indicative Budget €300 million".



Bio-based innovation for sustainable goods and services areas



Budget distribution within the call (M€)



Securing sustainable biomass supply



4 topics – 23 M€

- **Sustainability schemes for the bio-based economy**
- **Towards a methodology for the collection of statistical data on bio-based industries and bio-based products**
- **Adaptive tree breeding strategies and tools for forest production systems resilient to climate change and natural disturbances**
- **Intelligent solutions and tools in forest production systems, fostering a sustainable supply of quality wood for the growing bioeconomy**



Building the bio-based markets of the future



2 topics – 4 M€

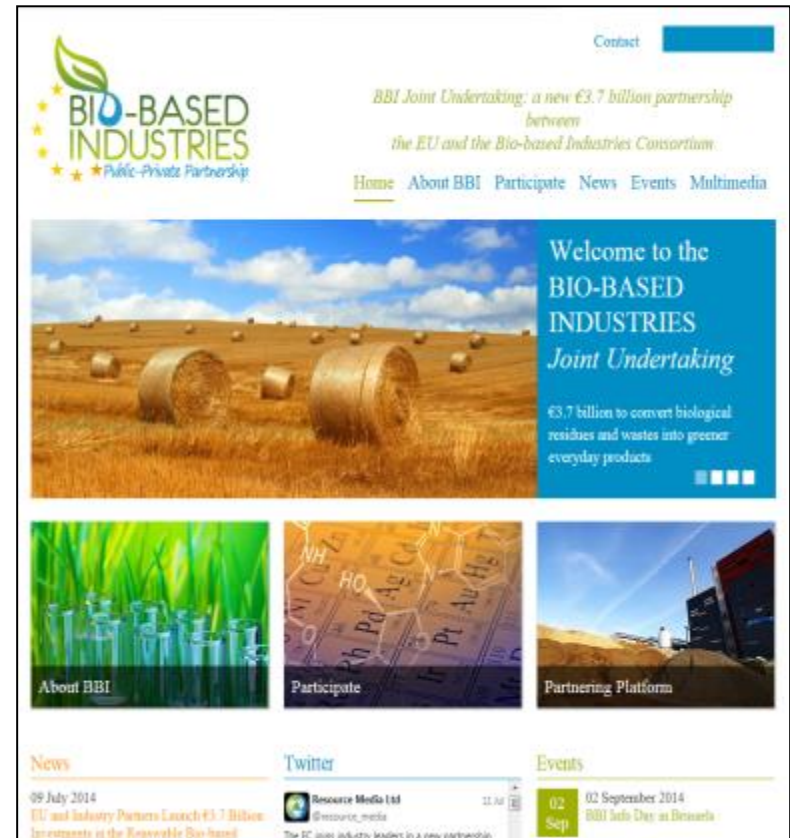
- **Bio-based products: mobilisation and mutual learning action plan**
- **Bio-based industries regional dimension**



Bio-based Industries Joint Undertaking (BBI – JU)

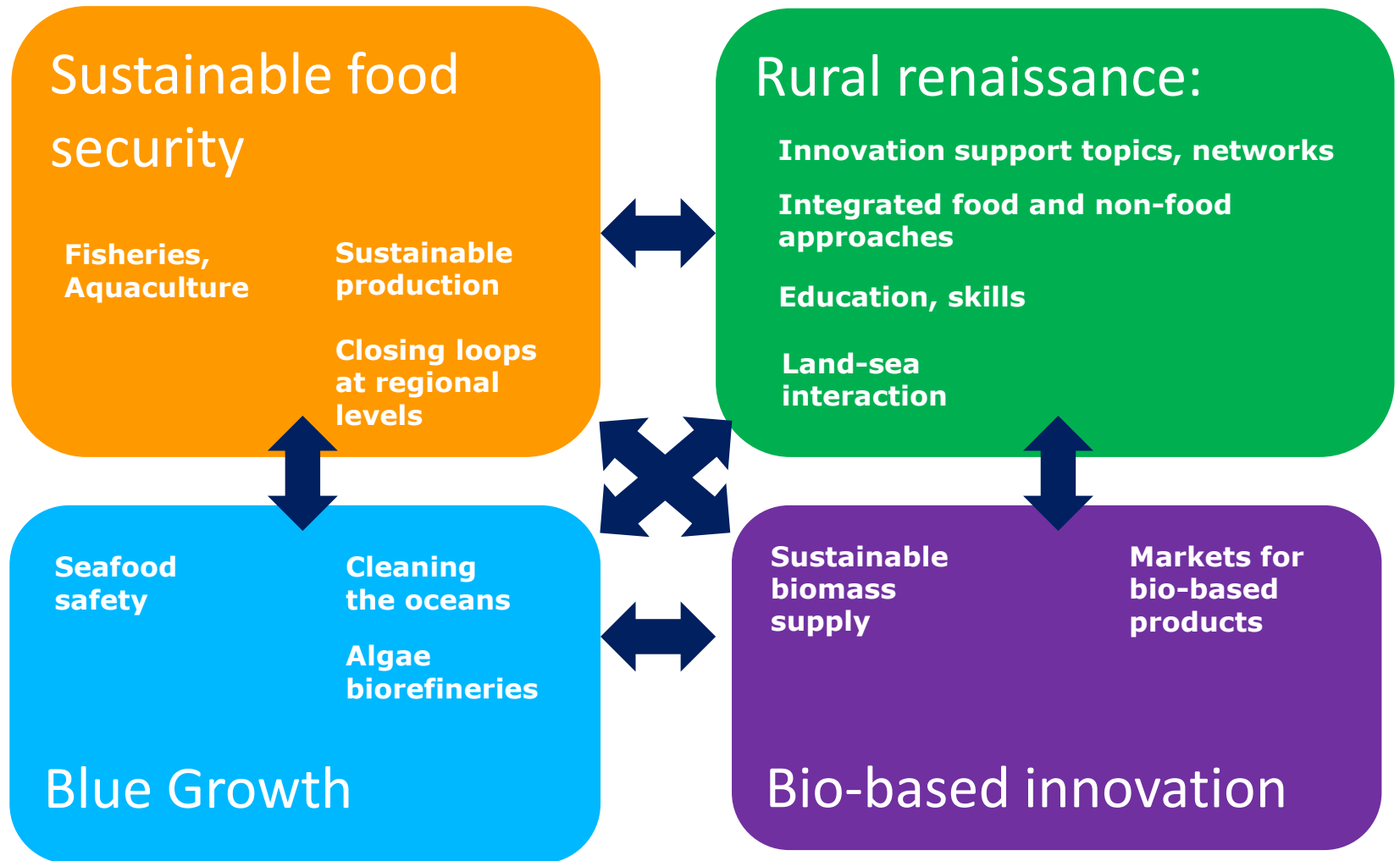
Public Private Partnership supporting R&I for bio-based industries:

- Partners: **European Commission and Bio-based Industries Consortium (BIC)**
- Budget: **€ 3.705 billion** (about 75% from industry)
- Implementation:
 - Principles of **openness, transparency and excellence**
 - Horizon 2020 rules for participation
- Objectives: At least **5 new bio-based value chains** for Europe based on **2nd generation/advanced biorefineries**



www.bbi-europe.eu

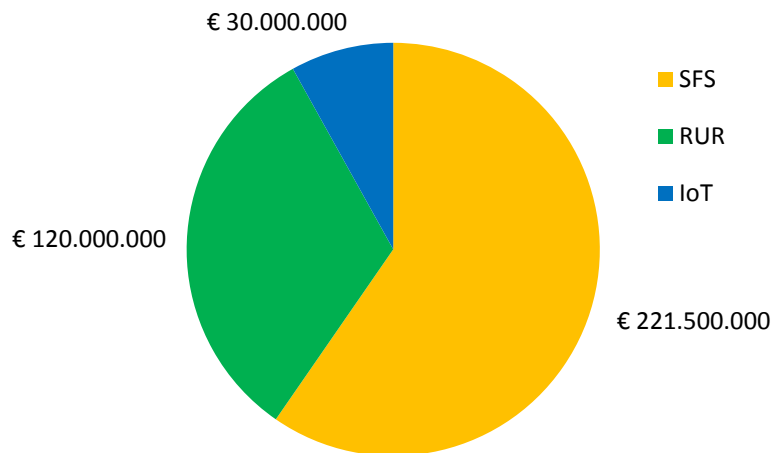
Four SC2 calls interact



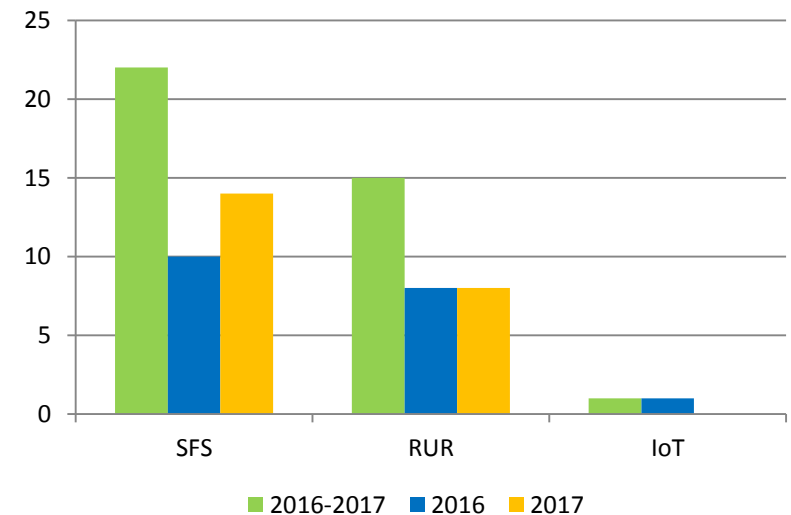
The Multi-actor approach under WP2016-2017

- Investment X 2,5 → 371,5 Million euros
- 38 topics in 3 calls: SFS, RUR, IoT

Distribution of budget for multi-actor projects



Number of multi-actor topics in WP2016-2017



The multi-actor approach under WP2016-2017: Key elements

- Description now in **WP introduction p. 9-10**
- Multi-actor projects are about **interactive innovation**
- **Beyond dissemination** requirement and stakeholders' board
- **Genuine and sufficient** involvement of various actors **all along the project**, from planning to demonstration
- **Demonstrate** how project will respond to **end-users needs**
- **Substantial practical knowledge easily accessible and understandable**
- **Material** → **EIP-AGRI** (for EIP-AGRI related areas)
 - Common format
 - Connect with operational groups

Call 2016 deadlines

Publication	Submission		<u>Deadlines</u>	Information to applicants	Grant Agreements
14 OCT 2016	two-stage submission (RIA with some exceptions)	1st stage	17 Feb 2016	May 2016	-
		2nd stage	13 Sept 2016	Nov 2016	May 2017
	single stage submission (IA, CSA, ERA Net)	Single stage	17 Feb 2016	May 2016	October 2016

Societal challenge 2 in other calls



SC2 contributions to other calls

- **SME dedicated call:**

- **"Land"- 58M€:** Stimulating the innovation potential of SMEs for sustainable and competitive agriculture, forestry, agri-food and bio-based sectors (SME-Inst07)
- **"Sea" – 19,5M€:** Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth (SME-Inst08)

- **Cross-cutting activities:**

- **Unlocking the potential of urban organic waste** (Industry 2020 and the circular economy; CIRC-05-2016 – 3M€)
- **Large Scale Pilot on Smart Farming & Food Security** (Internet of Things; Iot-01-2016 – Pilot 2 - 30M€)

- **Fast-track to innovation;**

- **InnovFIN:** BioBlue Window (**10M€**)

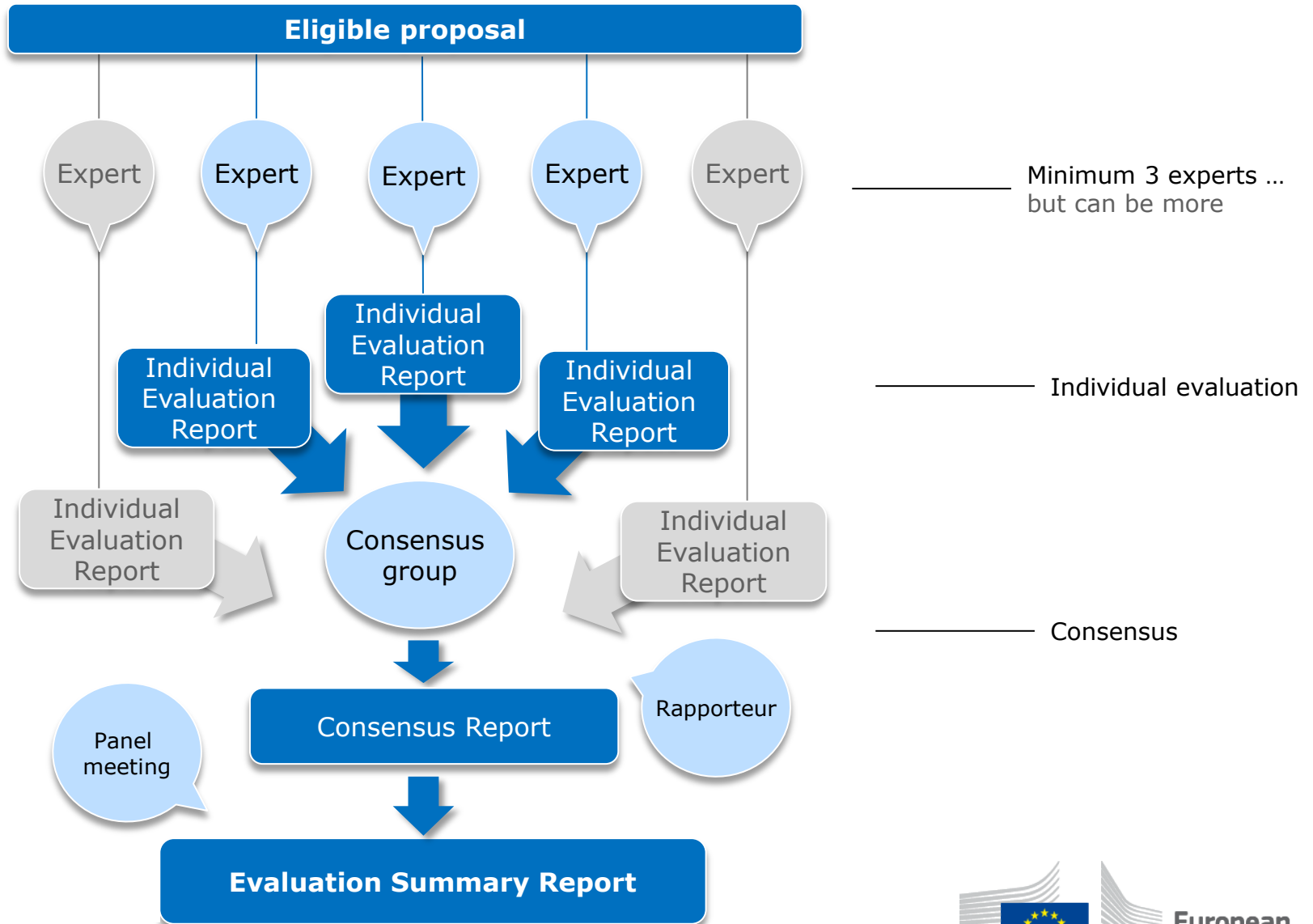
Tips & success factors for applications



Some tips on how to succeed

- Start **in time**
- **Choose your partners well**
- **Avoid “recycling”** of former projects or project partners which do not have a specific contribution to the topic.
- Check for **eligibility**
- Read **the evaluation criteria** – imagine what the evaluator will think
- Excellent science is not enough: consider **all the criteria**
- **Impact matters as much as excellence!** → Check the expected impacts and scope of the topic in detail
- Consider **sub-criteria**

Evaluation process for each call



Evaluation criteria

Research and Innovation Actions/Innovation Actions

Excellence

- **Clarity and pertinence of the objectives**
- **Soundness of the concept and credibility of the proposed methodology**
- **Extent that proposed work is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches), and demonstrates innovation potential**
- **Credibility of the proposed approach**
- **Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge.**

Impact

- **The expected impacts listed in the work programme under the relevant topic**
- Any substantial impacts not mentioned in the work programme, that would enhance innovation capacity; create new market opportunities, strengthen competitiveness and growth of companies, protect the environment or bring other important benefits for society.
- Quality of the proposed measures to:
 - Exploit and disseminate the project results (including management of IPR), and to manage research data where relevant.
 - Communicate the project activities to different target audiences

Implementation

- Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables
- Appropriateness of the management structures and procedures, including risk and innovation management.
- Complementarity of the participants and extent to which the consortium as whole brings together the necessary expertise
- Appropriateness of the allocation of tasks, ensuring that all participants have a valid role and adequate resources in the project to fulfil that role

Scores

0

The proposal **fails** to address the criterion or cannot be assessed due to missing or incomplete information.

1

Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.

2

Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.

3

Good. The proposal addresses the criterion well, but a number of shortcomings are present.

4

Very Good. The proposal addresses the criterion very well, but a small number of shortcomings are present.

5

Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Some tips on how to succeed

- **Write clearly and concisely** - ask someone impartial to proofread your proposal
- Respect the **page limits**
- **Be coherent!** Make sure that the chosen objectives are coherent with the foreseen project activities, the competence of the partners and the planned budget per activity.
- **Is your project good value for money?** Make sure the cost/benefit ratio is sound. Keep in mind that all costs should be reasonable in the light of the foreseen outcomes.

Resources, guidance and tools



Useful pages and documents

- Horizon 2020 [online manual](#)
- [Reference documents](#) : work programmes, legal and guidance documents
- [Frequently asked questions](#) (FAQ) on participant portal
- [IT Helpdesk](#) for questions about the Participant Portal tools and processes.

You have a specific question?

- Contact your [National Contact Point](#) or the Horizon 2020 [helpdesk](#) for guidance, practical information and assistance on all aspects of participation in Horizon 2020.

Guidance and tools on horizontal issues



- **Communication and dissemination matters!**
 - **Look at the [communication and dissemination guide](#)**
- **Applying to a topic with a strong Social Science and Humanities (SSH) dimension?**
 - [SSH page](#) of the H2020 Manual
 - Tips on the [NET4SOCIETY](#) website and partner [directory](#)
- **How to engage the public in your research activities?**
 - EIP-AGRI brochure on participatory approaches
 - [Tools](#) developed by the [Engage 2020 project](#)

Work Programme pre-publication

- Draft versions of the Horizon 2020 work programmes for 2016-2017 are made public just before the adoption process.
- These versions are not yet endorsed by the Commission and they do not in any way prejudice the final decision of the Commission.
- The adoption and the publication of the work programme by the Commission are expected today 13 October 2015 and publication tomorrow 14/10/2015.

Only the adopted work programme will have legal value.

<https://ec.europa.eu/programmes/horizon2020/en/draft-work-programmes-2016-17>

This presentation shall neither be binding nor construed as constituting commitment by the European Commission



HORIZON 2020

**Thank you
for your attention!**

Find out more:

www.ec.europa.eu/research/horizon2020