HORIZON 2020

Societal Challenge 2: Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy

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The Multiannual Financial Framework 2014-2020:
European Council conclusions, 8 February 2013

Key challenge: stabilise the financial and economic system while taking measures to create economic opportunities

1. **Smart & inclusive growth (€451 billion)**

€77 billion

| Education, Youth, Sport | Connecting Europe | Cohesion | Competitive Business SMEs | HORIZON 2020 |

2. **Sustainable growth, natural resources (€373 billion)**
3. **Security and citizenship (€16 billion)**
4. **Global Europe (€58 billion)**
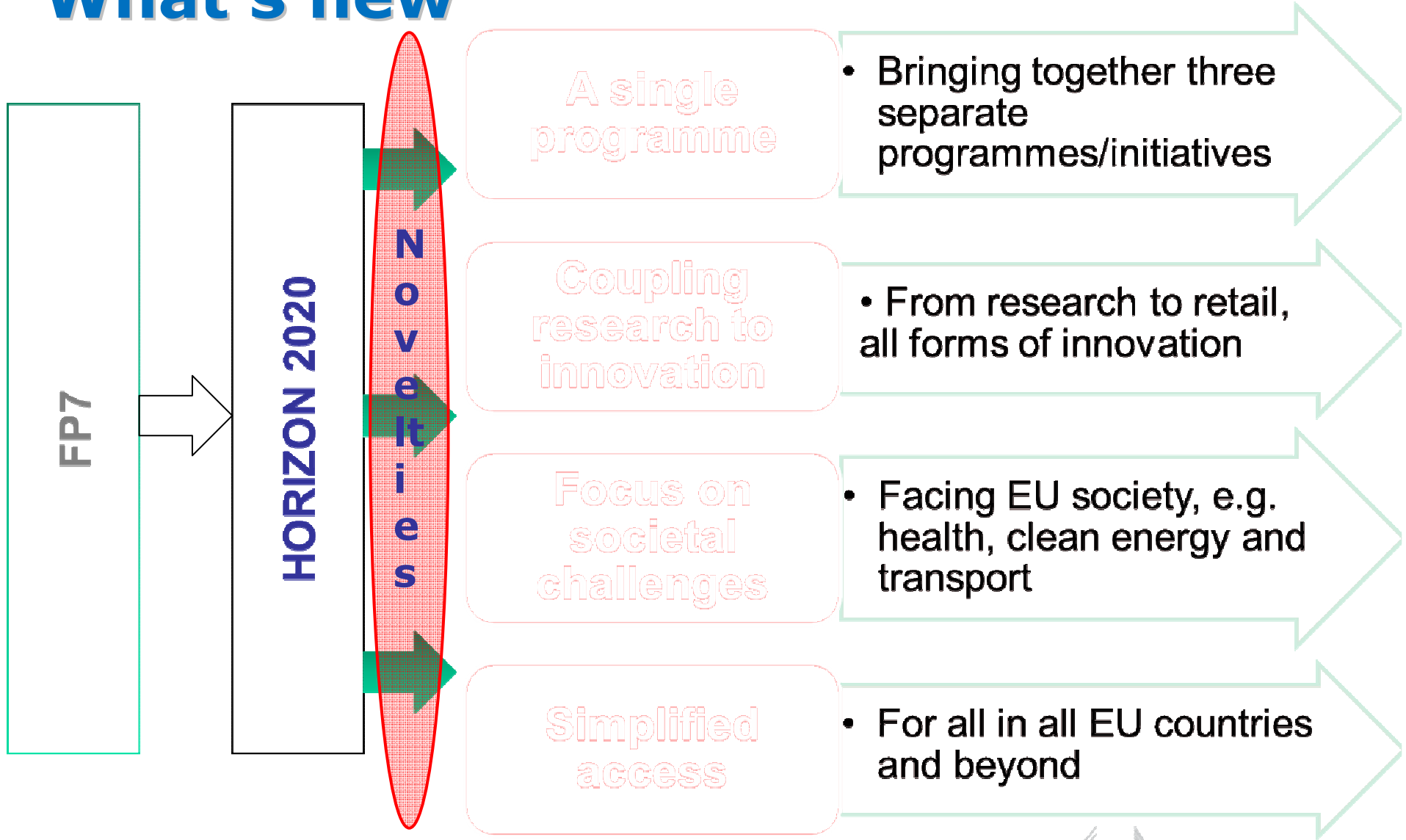5. **Administration (€61.6 billion)**

TOTAL
€960 billion

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What's new

FP7 → HORIZON 2020

Novelties

A single programme
- Bringing together three separate programmes/initiatives

Coupling research to innovation
- From research to retail, all forms of innovation

Focus on societal challenges
- Facing EU society, e.g. health, clean energy and transport

Simplified access
- For all in all EU countries and beyond

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Three priorities:

Excellent science

Industrial leadership

Societal challenges

1. **Health, demographic change and wellbeing**

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

3. **Secure, clean and efficient energy**
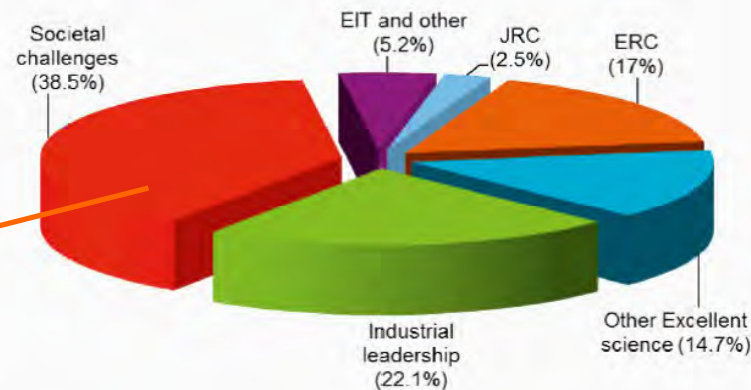
4. **Smart, green and integrated transport**

5. **Climate action, resource efficiency and raw materials**

6. **Inclusive, innovative and reflective societies**

7. **Secure societies**

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H2020 budget € 77 billion

Societal challenges (38.5%)

EIT and other (5.2%)

JRC (2.5%)

ERC (17%)

Other Excellent science (14.7%)

Industrial leadership (22.1%)

Budget for SC2:< €3,8 billion = More than double of budget under FP7

Biggest EU investment in Research and Innovation

Research and Innovation

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→ **Making the best from our biological resources**

Objectives:

- Sufficient supplies of safe and high quality food and bio-based products,

- productive and resource-efficient primary production systems,

- competitive and low carbon supply chains.

o accelerate the transition to a sustainable European bioecono

→ **Bioeconomy Strategy**

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Activities:

Agriculture and forestry

Agri-food sector for a safe and healthy diet

Aquatic living resources

Bio-based industries and bioeconomy

Marine and maritime research
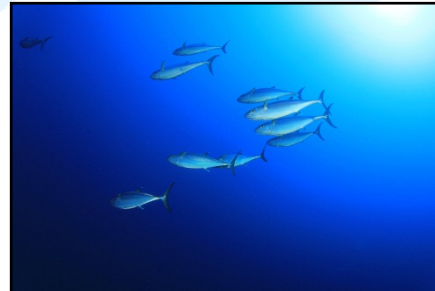
Activity 2.1. Sustainable Agriculture and Forestry

- 2.1.1. Increasing **production** efficiency, coping with **climate change**, while ensuring **sustainability and resilience**

- 2.1.2. Providing **ecosystem services** and public goods

- 2.1.3. Empowerment of **rural areas**, support to policies and rural innovation

- 2.1.4. Sustainable **Forestry**

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Activity 2.2 Sustainable and competitive agri-food sector for a safe and healthy diet

- 2.2.1. Informed **consumer choices**

- 2.2.2. **Healthy and safe foods** and diets for all

- 2.2.3. A sustainable and competitive **agri-food industry**

Activity 2.3. Unlocking the potential of aquatic living resources

- 2.3.1. Developing sustainable and environmentally-friendly **fisheries**

- 2.3.2. Developing competitive and environmentally-friendly **European aquaculture**

- 2.3.3. Boosting **marine and maritime innovation** through biotechnology
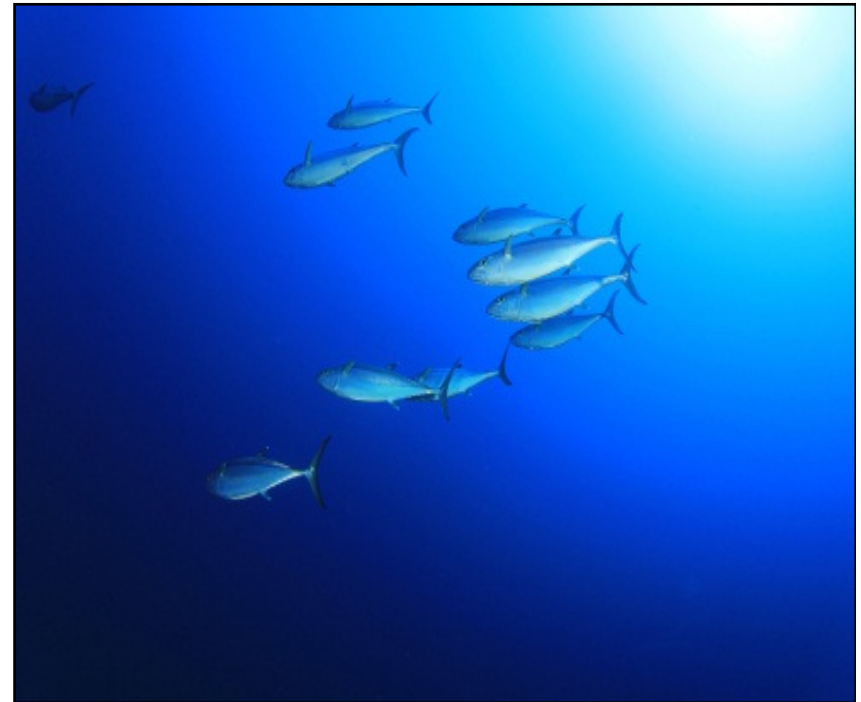
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Activity 2.4. Sustainable and competitive bio-based industries and (...) bioeconomy

Full title: Activity 2.4. Sustainable and competitive bio-based industries and supporting the development of a European bioeconomy

2.4.1. Fostering the **bioeconomy** for **bio-based industries**

2.4.2. Developing integrated **biorefineries**

2.4.3. Supporting **market development** for bio-based products and processes

Most activities related to sustainable and competitive bio-based industries as defined in the Horizon 2020 Specific Programme will be implemented through the Joint Technology Initiative (JTI) on Bio-based Industries.

Activity 2.5. Cross-cutting marine and maritime research

2.5.1. **Climate change impact** on marine ecosystems and maritime economy

2.5.2. Developing the potential of **marine resources** through an integrated approach
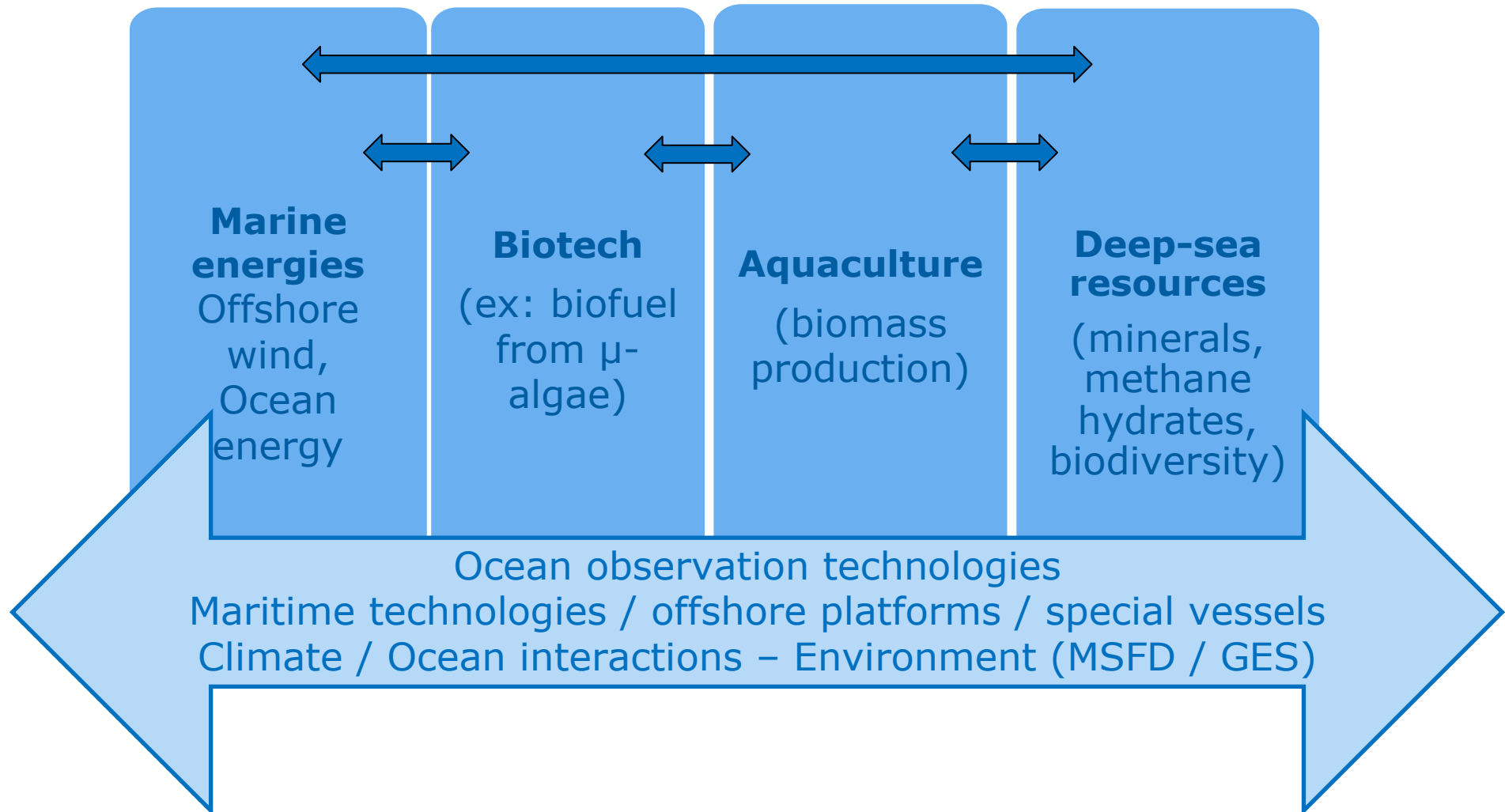
2.5.3. Cross-cutting concepts and technologies **enabling maritime growth**
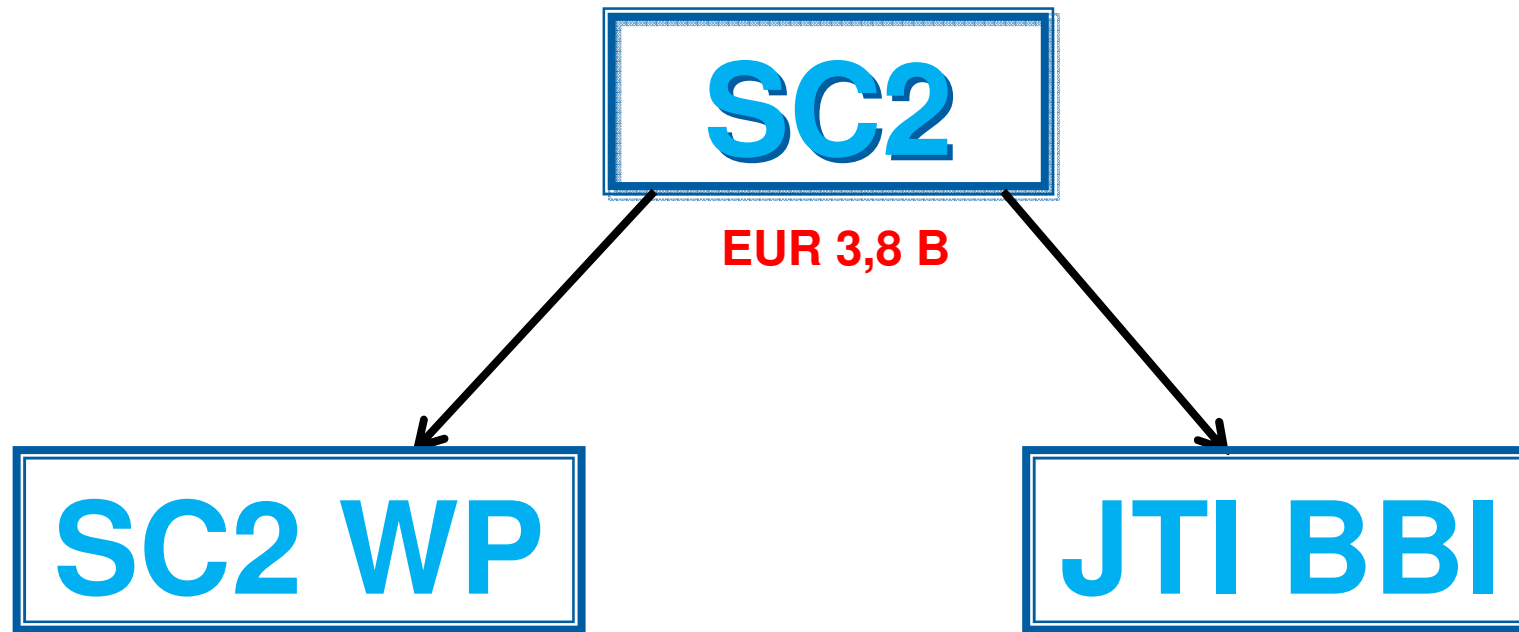
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Activity 2.5. Cross-cutting marine and maritime research

Horizon 2020 – Blue Growth

Marine energies
Offshore wind, Ocean energy

Biotech
(ex: biofuel from µ-algae)

Aquaculture
(biomass production)

Deep-sea resources
(minerals, methane hydrates, biodiversity)

Ocean observation technologies
Maritime technologies / offshore platforms / special vessels
Climate / Ocean interactions – Environment (MSFD / GES)

Implementing H2020 SC2

SC2

EUR 3,8 B

SC2 WP

JTI BBI

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

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Implementing H2020 SC2

A strategic programming approach

Work programme preparation based on strategic programming exercise for the next three years

To increase impact of the funding, and a more integrated approach

Leitmotiv of the first work programme is the economic crisis and the path to sustainable growth - Horizon 2020 can make a significant contribution to this effort

Identify 12 focus areas on which resources and effort will be concentrated for maximum impact

Implementing H2020 SC2

Specificities of the new Framework Programme

Challenge-based approach

Less prescription

Broader topics

Simplified list of possible types of action

Cross-cutting issues mainstreamed

Work programmes with a **2 year-duration**

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Implementing H2020 SC2

Specificities of the new Work Programme
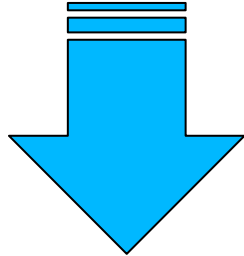
**It reflects
the challenge-based approach of H2020:**

- ## Specific Challenge
  - o sets the context, the problem to be addressed, why intervention is necessary

- ## Scope
  - o delineates the problem, specifies the focus and the boundaries of the potential action BUT without overly describing specific approaches

- ## Expected Impact
  - o describe the key elements of what is expected to be achieved in relation to the specific challenge

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SC2 Work Programme 2014-2015

Strategic Programming

WORK PROGRAMME

SC2 SPECIFIC PROGRAMME

Sustainable Agriculture and Forestry

Sustainable and Competitive agri-food sector for a safe and healthy diet

Unlocking the potential of aquatic living resources

Sustainable and competitive bio-based industries and supporting the development of a European bio-economy

Cross-cutting marine and maritime research

JTI BBI

138 M
110,5 M — *Call SFS*

59 M
26 M — *Call Blue Growth* **100 M**
+ SC3, SC4 and SC5 **45 M** as contributors

44,5 M
42 M — *Call ISIB*

5 M — Personalising Health and Care Focus Area

9 M
14 M — Waste Focus Area

3 M — Water Focus Area

Budgets:
2014
2015

SC2: Three calls

Sustainable Food Security

- **Sustainable food production systems**
- **Safe *food and healthy* diets and sustainable consumption**
- **Global drivers of food security**

Blue Growth

- **Sustainably exploiting the diversity of marine life**
- **New offshore challenges**
- **Ocean observation technologies/systems**
- **Socio-economic dimension - engagement with society**

Innovative, Sustainable and Inclusive Bioeconomy

- **Sustainable agriculture and forestry**
- **Sustainable and competitive bio-based industries**
- **Cross-cutting actions covering all the activities**

SC2: Sustainable Food Security Call

Examples of topics:

1. Sustainable food production systems

- SFS-1-2014/2015: Sustainable terrestrial livestock production
- SFS-2-2014/2015: Sustainable crop production
- SFS-8-2014/2015: Resource-efficient eco-innovative food production and processing
- SFS-9-2014: Towards a gradual elimination of discards in European fisheries

2. Safe food and healthy diets and sustainable consumption

- SFS-12-2014: Assessing the health risks of combined human exposure to multiple food-related toxic substances
- SFS-13-2015: Biological contamination of crops and the food chain
- SFS-14-2014/2015: Authentication of food products
- SFS-15-2014: Proteins of the future
- SFS-16-2015: Tackling malnutrition in the elderly
- SFS-17-2014: Innovative solutions for sustainable novel food processing

3. Global drivers of food security

- SFS-19-2014: Sustainable food and nutrition security through evidence based EU agro-food policies

SC2: Blue Growth Call

Sustainably exploiting the diversity of marine life

- BG1-2015: Atlantic marine ecosystems
- BG2-2015: Effects of climate change on F&A
- BG3-2014: Novel marine biomolecules
- BG4-2014: Potential of marine derived enzymes

New offshore challenges

- BG5-2014: Innovative offshore economy
- BG6-2014: Sub-sea technologies
- BG7-2015: Response capacities to oil spills and marine pollutions

Ocean observation technologies/systems

- BG8-2014:Atlantic Ocean observation
- BG9-2014: Acoustic and imaging technologies

Horizontal aspects

- BG10-2014: Competitiveness of Seafood markets
- BG11-2014: Monitoring, disseminating and valorizing research outputs
- BG12-2014/2015: SME instrument
- BG13-2014: Ocean literacy
- BG14-2014: Atlantic Ocean Cooperation Research Alliance
- BG15-2014: Polar research
- BG16: JPI Oceans CSA

SC2: Innovative, Sustainable and Inclusive Bioeconomy Call

Sustainable Agriculture and Forestry

- ISIB-1-2014: Provision of public goods by EU agriculture and forestry: Putting the concept into practice
- ISIB-2-2014/2015: Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange
- ISIB-3-2015: Unlocking the growth potential of rural areas through enhanced governance and social innovation
- ISIB-4-2014/2015: Improved data and management models for sustainable forestry

Sustainable and competitive bio-based industries

- ISIB-5-2014: Renewable oil crops as a source of bio-based products
- ISIB-6-2015: Converting CO_2 into chemicals
- ISIB-7-2014: Public procurement networks on innovative bio-based products

Cross-cutting actions covering all activities

- ISIB-8-2014: Towards a sustainable Bioeconomy (Communication and dissemination activities)
- ISIB-9-2014 to ISIB-14-2014/2015: Support to ERANETS and JPIS

SC2: WP 2014-2015

Types of actions:

- 29 Research and Innovation Actions
- 2 Innovation actions

→ *Two-stage*

- 13 Coordination and Support actions
- 1 ERANET Cofund *(but 6 possible ERANETS)*

→ *Single-stage*

- 2 SME instrument → *multiple deadlines*

Budget and expected results:

- 2014: EUR 250 M → ~49 projects (average EUR 5,2M / project)
- 2015: EUR 200 M → ~36 projects (average EUR 5,5M / project)

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SC2: WP 2014-2015

Cross-cutting issues mainstreamed

SME: FP7:>15% H2020:>20%

- 2 SME instrument topics (5% of budget)
- SME-friendly topics

SSH integrated throughout the WP

- SSH dedicated topics
- SSH encouraged in other topics

Targeted International Cooperation

- General opening of all topics

Open Access: participants can opt in the pilot projects on Open Access to Data

Implementing H2020 SC2

Characteristics of projects I

Variety of type of **actions**

- But mainly Research and Innovation, though going more towards innovation

Variety of type of **beneficiaries**

- From research institutions to industries and farmers, Multi-actor approach strengthened

Management mode:

- Programme defined by DG RTD and DG AGRI
- Project management shared RTD/REA

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Implementing H2020 SC2

Characteristics of projects II

Average size of projects	FP7: €3,8 M	H2020: 2014: €5,2M	H2020 2015: €5,5M	Target = €6,8M

Average num. of Part./project	FP7: 15	Horizon 2020 ?↗ (multi-actor approach?)

Average duration of projects	FP7: ~4 years	Horizon 2020 ~5 years

Number of projects	FP7: 500; 2013: 76	H2020 2014: 49 2015: 36

Number of proposals	FP7: 3037 (16%) 2013: 467 (16%);	H2020:?↗ Success rate↘

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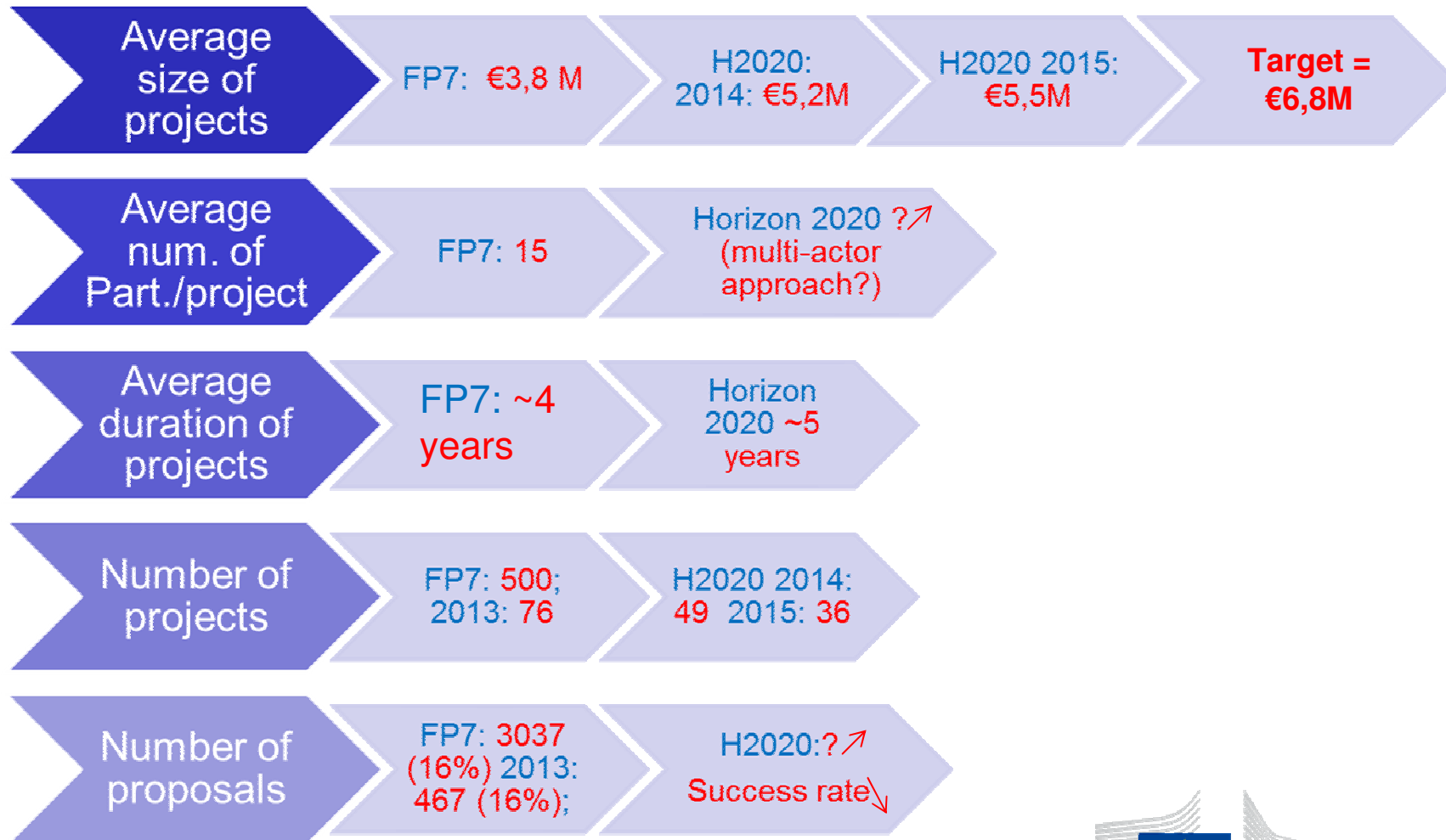
Horizon 2020: Rules for participation

Three main objectives

Innovation,
Simplification
and Coherence
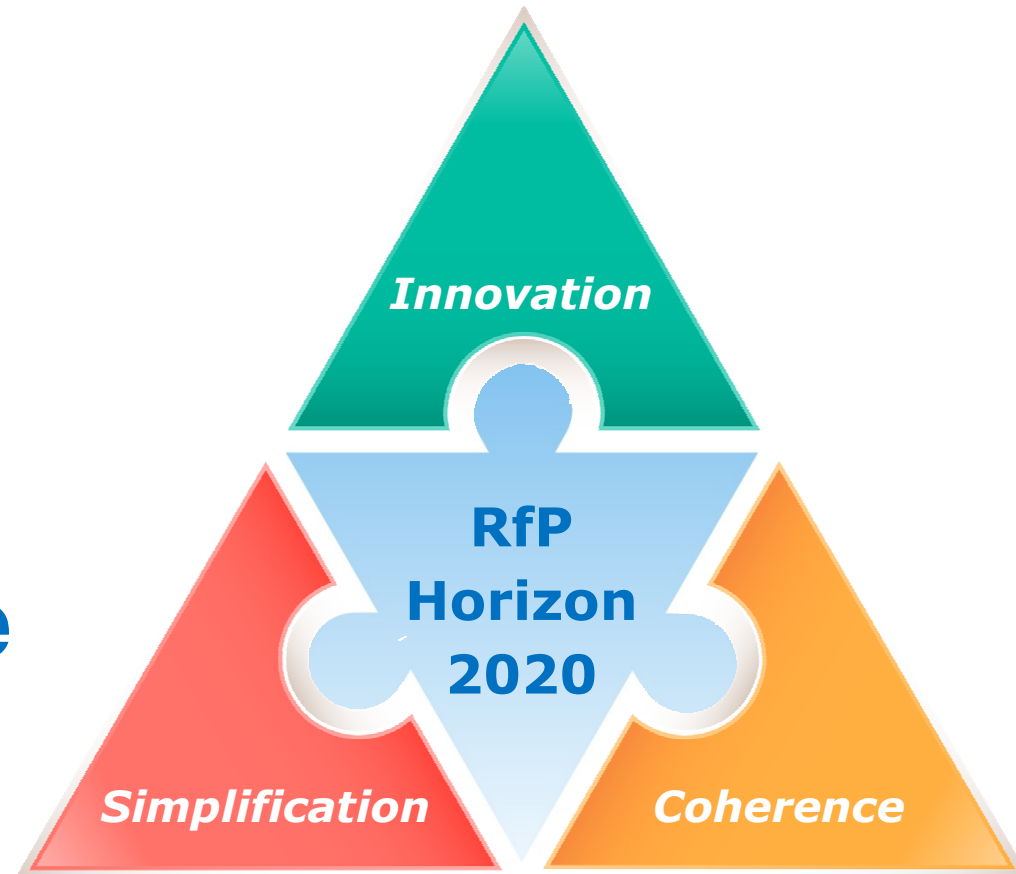
Horizon 2020: A single set of rules

EU Financial Regulation

Specific rules for participation

> Covering all H2020 research and innovation actions

> Keeping flexibility where needed

etc.

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Horizon 2020: Conditions for Participation

Minimum conditions

✓ **Standard collaborative actions**

At least three legal entities each established in a different Member State or an Associated Country;

✓ **ERC, SME instrument, programme co-fund, coordination and support, training and mobility actions:**

One legal entity established in a Member State or in an Associated Country

Additional Conditions
✓ **In the work programme or work plan**

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Horizon 2020: Conditions for Participation

Proposal Structure

Based around evaluation criteria:

✓**Excellence**

Eg. Objectives, concept, progress beyond state-of-art…

✓**Impact**

Eg. Potential impact (*incl. with reference to WP*); measures to maximise impact (*dissemination, communication, exploitation*)

✓**Implementation**
Including work packages descriptions

Provisional

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Horizon 2020: Conditions for Participation

Submission

Provisional

✓ Full use if pre-registered data (PIC etc)

✓ Self check for SME status, financial viability

✓ Proposal "part B" structure closely matching criteria

✓ Aligned with Grant Agreement "Description of Work"

✓ Simpler but tougher page limits
  "warn and watermark" in first round of calls

✓ More 2-stage procedure; with simplified approaches for short proposals

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Participant Portal : H2020 calls - Full tree structure

Participant Portal : Search topics results

RESEARCH & INNOVATION

European Commission   Participant Portal

BETA VERSION 4

European Commission > Research & Innovation > Participant Portal > Funding Opportunities

HOME   FUNDING OPPORTUNITIES   HOW TO PARTICIPATE   EXPERTS   SUPPORT ▼   🔒 LOGIN   👤 REGISTER

Calls
- Horizon 2020
- COSME

Search Topics

Call Updates

Other Funding Opportunities

Previous Framework Programmes (FP7 & CIP)

SEARCH TOPICS

FUNDING GUIDE

Search keywords: climate change   **Search**

Horizon 2020 predefined criteria:

Cross-cutting Key-Enabling Technologies (KETs) ⓘ   International cooperation ⓘ
ERA-NET ⓘ   SME Instrument ⓘ
~~Coordin~~ ⓘ   Socio-economic science and Humanities ⓘ

3 results   **Filter options:**   ◉ Open calls   ○ Closed calls   ○ Forthcoming calls   **Sort by:**   ○ Publication date   ◉ Deadline   ○ Title   ○ Call ID

Topic: SFS 7 – 2014: Optimising external nutrient inputs in intensive crop production systems in Europe
European crop production is facing more and more difficulties in remaining competitive in the global market for many reasons. One of these reasons is certainly the high cost of external nutrient inputs necessary
More…

Call title: Sustainable Food Security   Status: **Open**
Call identifier: _H2020-SFS-2014/2015_   Deadline: **2014-03-18**

Topic: WATER 2 – 2014/2015: Integrated approaches to water and climate change
The rising demands of a growing world population for food, water, materials and energy will put increasing pressures on land use, water resources and ecosystems. Energy consumption is expected to increase, More…

Call title: Water Innovation: Boosting its value for Europe   Status: **Open**
Call identifier: _H2020-WATER-2014/2015_   Deadline: **2014-03-18**

Topic: WATER 5 – 2014/2015: Strengthening international R&I cooperation in the field of water
Developing countries, especially in Africa, are facing serious challenges for sustaining its development. Sustainable water supply and sanitation is fundamental to the food security, health, survival   More…

Call title: Water Innovation: Boosting its value for Europe   Status: **Open**

Stay informed

RSS feed ⓘ
iCal ⓘ

Participant Portal : Topic details - conditions

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Calls

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COSME

Search Topics

Call Updates

Other Funding Opportunities

Previous Framework Programmes (FP7 & CIP)

Stay informed

RSS feed ⓘ
iCal ⓘ

HORIZON 2020 CALLS

FUNDING GUIDE

Call: Water innovation: boosting its value for Europe

Topic: *Bridging the gap from innovative water solutions to market replication*   WATER 1 – 2014/2015

| Topic Description | Topic Conditions | Call Documents | Submission Service |

Topic Conditions

Eligibility conditions – The standard eligibility conditions apply. Please read carefully these provisions before the preparation of your application.

Evaluation criteria – The standard evaluation criteria apply. Please read carefully the provisions before the preparation of your application.

Evaluation procedure – Please read carefully the standard evaluation procedure provisions before the preparation of your application.

Proposal page limits and layout: **10 pages**

Applicants must ensure that proposals confirm to the **page limits and layout** given in the Guide for Applicants (see Call Documents) , and in the proposal part B template available through the electronic Submission Services of the Commission.

The Commission will instruct experts to disregard any pages exceeding these limits.

The minimum font size allowed is 11 points. The page size is A4, and all margins (top, bottom, left, right) should be at least 15mm (not including any footers or headers).

Topic	Evaluation results (single or first stage)	Evaluation results (second stage)	Indicative date for signing of grant agreements
Water 1		Maximum 6 months after the deadline	Maximum 9 months after the deadline

Should the call publication postponed, the dates in this table should be adjusted accordingly.

Horizon 2020: Evaluation of proposals

STANDARD AWARD CRITERIA

EXCELLENCE	IMPACT	QUALITY & EFFICIENCY OF THE ACTION

✓ **First phase** ➤ only EXCELLENCE and IMPACT

✓ **ERC** frontier Research actions ➤ only EXCELLENCE

✓ **Innovation actions** ➤ higher weighting for "IMPACT"

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Horizon 2020: Evaluation of proposals

Scoring/weights/thresholds

Provisional

As in FP7:

Each criterion scored out of 5

Individual threshold of 3

Overall threshold of 10

Unlike FP7, for Innovation Actions and SME instrument...

Impact criterion weighted by factor 1.5

Impact considered first when scores equal

For first phase: individual threshold of 4

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Horizon 2020: Evaluation of proposals

Evaluation Process

Provisional

Chain of individual, consensus and panel
review maintained. But **changes from FP7**:

Dealing with multi-disciplinary/sectoral proposals

- New expert profiles, new blood;
- Robust rules on expert turnover;
- More experts per proposal;
- Clear procedures for cases where experts disagree

Call for experts planned for November

Dealing with 8 month TTG

(details in next slide)

- Proposals strictly evaluated on their own merit
- More multi-step (stopping evaluation when threshold failed)
- Fast and simplified procedure for SME instrument

No recommandations for substantial changes

Horizon 2020: Time to Grant
Speeding up the process I

A maximum TTG of 8 months

5 months
for informing all applicants
on scientific evaluation

3 months
for signature of GA

Some exceptions apply

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Horizon 2020: Time to Grant
Speeding up the process II

How to speed up the process

✓ **No more negotiations**
each proposal evaluated 'as it is',
not as 'what could be';

✓ **Legal entity validated parallel**

✓ **No more paper**
e-communication & e-signature of grants

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Horizon 2020: Calendar

Publication of first calls:

- Pre-published version already on-line on the Horizon 2020 website
- Prelaunch of Horizon 2020 first calls (2014-2015): **11 December 2013**
- Bio-NCP meeting: 16 January 2014
- Infoday: 17 January 2014

Calendar of Deadlines in 2014 and 2015:

- **Single-stage** (CSAs, ERANETs)**:**
  2014: **26/06/2014**
  2015: **11/06/2015**

- **Two-stage** (RIA, IA)**:**
  2014: **12/03/2014**   and   **26/06/2014**
  2015: **24/02/2015**   and   **11/06/2015**

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**Thank you
for your attention!**

Useful links:
Horizon 2020 and draft WPs: www.ec.europa/research/horizon2020
Participant Portal and final WPs: https://ec.europa.eu/research/participants/portal
Bioeconomy Portal and Info Day: http://ec.europa.eu/research/bioeconomy/

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