

FONDO PER LA PROMOZIONE DI ACCORDI ISTITUZIONALI PIATTAFORMA DI BIOTECNOLOGIE VERDI E DI TECNICHE GESTIONALI PER UN SISTEMA AGRICOLO AD ELEVATA SOSTENIBILITÀ AMBIENTALE

Horizon 2020: Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy

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Presentazione basata su documenti della CE (DG R&I; Elisabetta Balzi) e di Fabio Fava, UniBO, Rappresentante nazionale, Comitato di programma SC2





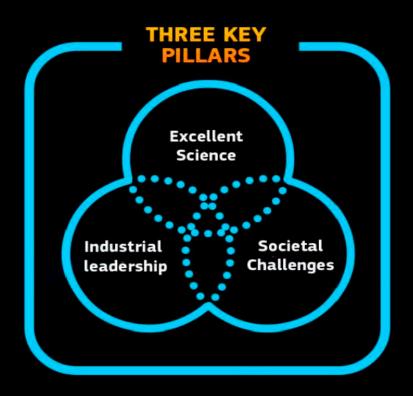


FP CIP EIT

A new programme bringing R&I together under one roof

Research and Innovation

HORIZON 2020



Research and Innovation

Horizon 2020



Commission

ERC: Ricerca di base

MSCA: Mobilità ric.

FET: Tecnologie avanzate

RI: Infrastrutture

1. Salute, demografia, benessere

2. Cibo, agricoltura, selvicoltura, pesca, mare e bio-economia

3. Energia sicura, pulita e efficiente

Excellent Science

Societal Challenges

EIT

Industrial Leadership

Euratom

EIT: Tecnologie industriali

RF: Finanz. rischio impresa

SME: PM Imprese

JRC

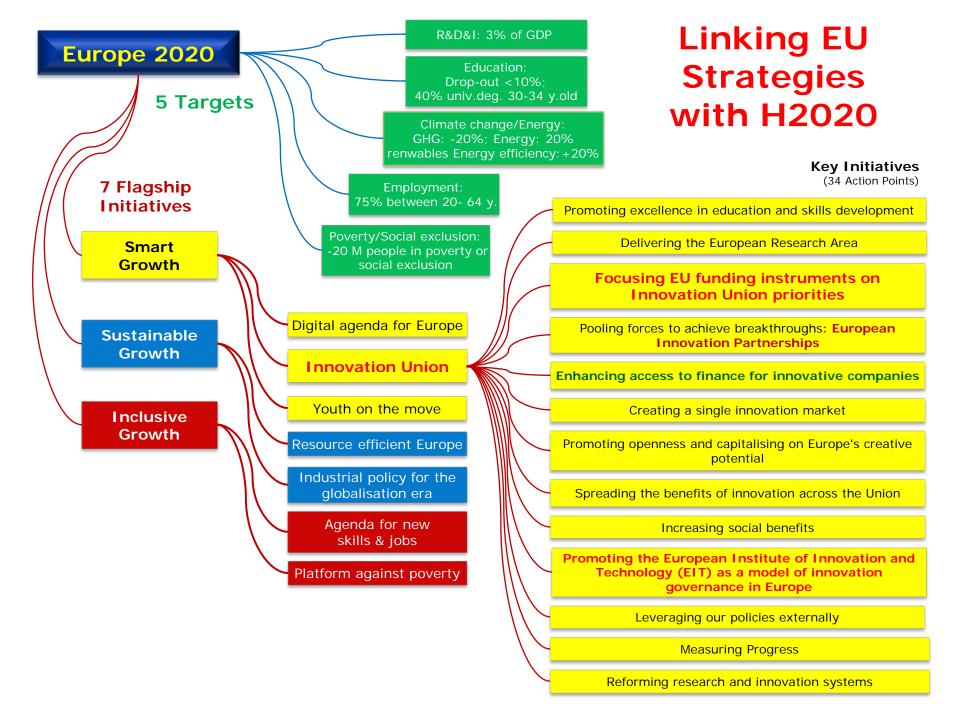
4. Trasporto intelligente

5. Clima e risorse

6. Società solidali

7. Società sicure

Research and Innovation



Priority 3.

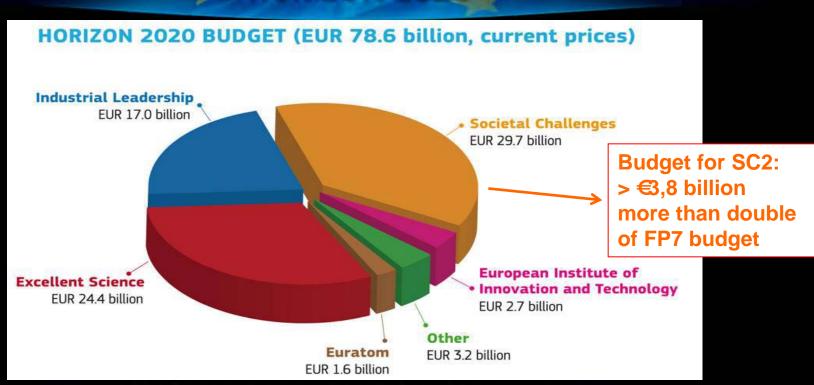
Societal challenges European Commission



Tackling societal challenges for a better society

- 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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Biggest EU investment in Research and Innovation

Research and Innovation



Horizon 2020

Societal Challenge 2

Objectives and Activities



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

Objectives:

- Sufficient supplies of safe and high quality food and biobased products,
- Productive and resource-efficient primary production systems,
- Competitive and low carbon supply chains.

Making the best from our biological resources

accelerating the transition to a sustainable European bioeconomy

EU Bioeconomy Strategy

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

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





Activity 2.1. Sustainable Agriculture and Forestry

Main challenges/ Orientations

more efficient production systems (crops, livestock, wood)

innovative technologies for more efficient use of inputs

improved plant and animal health

innovative plant & animal breeding

wiser use of natural resources (biodiversity, ecosystems)

climate change mitigation and adaptation practices (GHGs)

ecological intensification approaches (conventional & organic)

relation between urban and rural areas

support to EU policies (CAP; Environment; Food)

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

Main challenges/ Orientations

Achieving food safety and security;

Decreasing the burden of food- and diet-related diseases;

Reducing water and energy consumption;

Reducing food waste;

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 2.4. Sustainable and competitive bio-based industries and bioeconomy

Main challenges/ Orientations

Discovery and exploitation of biological resources for biomass

Development of biobased products and biologically active compound:

Supporting market development for bio-based products. Opening new markets for innovation:



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

Main challenges/ Orientations

Sustainably exploiting the diversity of marine life

The new offshore challenge

Sea bed mining

Ocean observation technologies/system



Horizon 2020

Societal Challenge 2

Workprogramme and calls 2014-2015



Implementing H2020 SC2

From Specific Programme to Work Programme 2014-2015

Strategic Programming

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

WORK PROGRAMME Calls 2014-2015

Sustainable Food Security

Blue Growth

Innovative,
Sustainable and
Inclusive
Bioeconomy

Personalising Health and Care (SC1)

Waste (SC5)

Water Innovation (SC5)

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 SME instrument
- 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 IA

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 _ IA

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: Market replication of innovative solutions for blue growth -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 CO2 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

Implementing H2020 SC2

Specificities of the new Work Programme



TOPICS reflect the challenge-based H2020 approach

Specific Challenge

 sets the context, the problem to be addressed, why intervention is necessary

Scope

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

Expected Impact

 describe the key elements of what is expected to be achieved in relation to the specific challenge

SC2: WP 2014-2015

Types of actions:

- 29 Research and Innovation Actions
- 2 Innovation actions
- 13 Coordination and Support actions
- 1 ERANET Cofund (but 6 possible ERANETS_
- 2 SME instrument → multiple deadlines

Budget

CALLS	2014	2015
Sustainable Food Security	138 M€	110,5 M€
Blue Growth	100 M€	45 M€
Innovative, Sustainable and Inclusive Bioeconomy	44,5 M€	42 M€
M€	282,5	197,5

→ Two-stage



→ Single-stage

Horizon 2020 SC2: Calendar

Publication of first calls: 11 December 2013

Calendar of Deadlines in 2014 and 2015:

Single-stage (CSAs, ERANETs):

<u>2014</u>: 26/06/2014

<u>2015</u>: 11/06/2015

Two-stage (RIA, IA):

2014: **12/03/2014** and 26/06/2014

2015: 24/02/2015 and 11/06/2015







RESEARCH ON EDROPA CORDIS -03-18 AF

	RESEARCH & INNOVATION	VERSION 4
European Commission	Participant Portal	
	novation > Participant Portal > Funding Opportunities	
HOME FUNDING OPPOR	RTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT *	a LOGIN REGISTER
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Calls	SEARCH TOPICS	JNDING GUIDE
Horizon 2020		
COSME	Search keywords: climate change	Search
	, and the state of	
Search Topics	Horizon 2020 predefined criteria:	
	Cross-cutting Key-Enabling Technologies (KETs) International cooperation Output	
Call Updates	ERA-NET ① SME Instrument ①	
Other Funding Opportunities	Gender ① Socio-economic science and Human	ities ①
8 17 1		
Previous Framework Programmes (FP7 & CIP)	3 results Filter options:	n date OTitle OCall ID
	Topic: SFS 7 - 2014: Optimising external nutrient inputs in intensive crop produ	ction systems in
	<u>Europe</u>	<u> </u>
	European crop production is facing more and more difficulties in remaining competing market for many reasons. One of these reasons is certainly the high cost of externocessary	9
	Call title: Sustainable Food Security	Status: Open
	Call identifier: <u>H2020-SFS-2014/2015</u>	eadline: 2014-03-18
	Topic: WATER 2 – 2014/2015: Integrated approaches to water and climate char	
	The rising demands of a growing world population for food, water, materials and of increasing pressures on land use, water resources and ecosystems. Energy constoling to increase.	
	Call title: Water Innovation: Boosting its value for Europe	Status: Open
	Call identifier: H2020-WATER-2014/2015	eadline: 2014-03-18
	Topic: WATER 5 - 2014/2015: Strengthening international R&I cooperation in t	
Stay informed RSS feed (i)	Developing countries, especially in Africa, are facing serious challenges for susta development. Sustainable water supply and sanitation is fundamental to the food	security, health,
iCal ①	survival Call title: Water Innovation: Boosting its value for Europe	More Status: Open
Email notification (1)	Can tale. Frater innevation. Deceting to value for Europe	Otatas. Open

Call identifier: <u>H2020-WATER-2014/2015</u>

Email notification (1)

Type of action: Innovation actions (70%)

Stay informed

RSS feed (i) iCal (i) Email notification (i)

RESEARCH ON EUROPA

than a consumable. Market penetration, long-term application and sustained use of successful solutions by

resource efficiency and environmental performance of the water sector, through synergies between public

water authorities, water utilities, various economic sectors, big companies, SMEs and research organisations.

various end-users, and creation of new market opportunities both inside and outside Europe. Increased

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BETA VERSION

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Previous Framework Programmes (FP7 & CIP)

Stay informed

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HORIZON 2020 CALLS

Call: Water innovation: boosting its value for Europe

Topic: Bridging the gap from innovative water solutions to market replication

Topic Description

Topic Conditions

Call Documents

Submission Service

WATER 1 - 2014/2015

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.

Consortia agreements: In line with the Rules for Participation and the Model Grant Agreement, participants in

Horizon 2020: EXPERTS



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H2020 ONLINE MANUAL



News

H2020 call for expression for interest for experts (11/2013) New calls for expression of interest for individual experts and for organisations to suggest experts were just published in OJ C342 of 22 November 2013. European Commission will soon need experts to evaluate first Horizon 2020 proposals. Don't forget to tick the H2020 box in the registration platform and update your expertise.



Experts

Join the database of independent experts for European research and innovation.

The European Commission appoints independent experts to assist with research and innovation assignments including the evaluation of proposals, monitoring of projects, and evaluation of programmes, and design of policy.

New experts

Who can be an expert?

You have a chance of being selected as an expert if you:

- · have high-level of expertise in the relevant fields of research and innovation (see call for details on types of expertise).
- · can be available for occasional, short-term assignments

REGISTER AS EXPERT

What do expert assignments involve?

Experts, as peer reviewers, assist in the:

- evaluation of proposals
- · monitoring of actions

In addition, experts assist in the:

 preparation, implementation or evaluation of programmes and design of policies.

Quick Links

Horizon 2020: Evaluation of proposals



√ First phase

only EXCELLENCE and IMPACT

✓ ERC frontier Research actions only EXCELLENCE





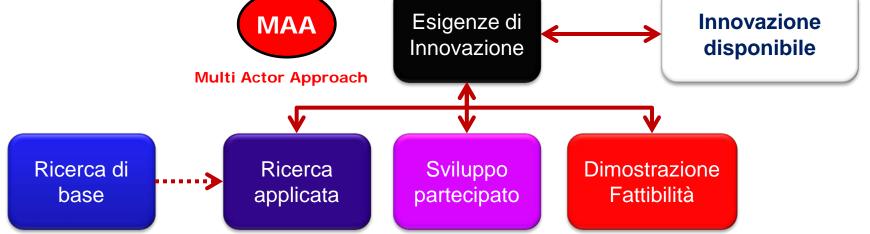
✓ Innovation actions higher weighting for "IMPACT"



R&D&I: Linking EU 3% of GDP Europe 2020 **Strategies Education:** Drop-out <10%: **5 Targets** 40% univ.deg. 30-34 y.old with **H2020** Climate change/Energy: GHG: -20%; Energy: 20% renwables Energy efficiency: +20% **Key Initiatives** (34 Action Points) 7 Flagship Employment: **Initiatives** 75% between 20- 64 y Promoting excellence in education and skills development Delivering the European Research Area Poverty/Social exclusion: **Smart** -20 M people in poverty or Growth social exclusion Focusing EU funding instruments on **Innovation Union priorities** Digital agenda for Europe Pooling forces to achieve breakthroughs: European Sustainable **Innovation Partnerships** Growth **Innovation Union** Enhancing access to finance for innovative companies Youth on the move Creating a single innovation market Inclusive Growth Resource efficient Europe Promoting openness and capitalising on Europe's creative potential Industrial policy for the Spreading the benefits of innovation across the Union globalisation era Agenda for new Increasing social benefits skills & jobs Promoting the European Institute of Innovation and Platform against poverty Technology (EIT) as a model of innovation governance in Europe Leveraging our policies externally **Measuring Progress** Reforming research and innovation systems

Cambio di paradigma

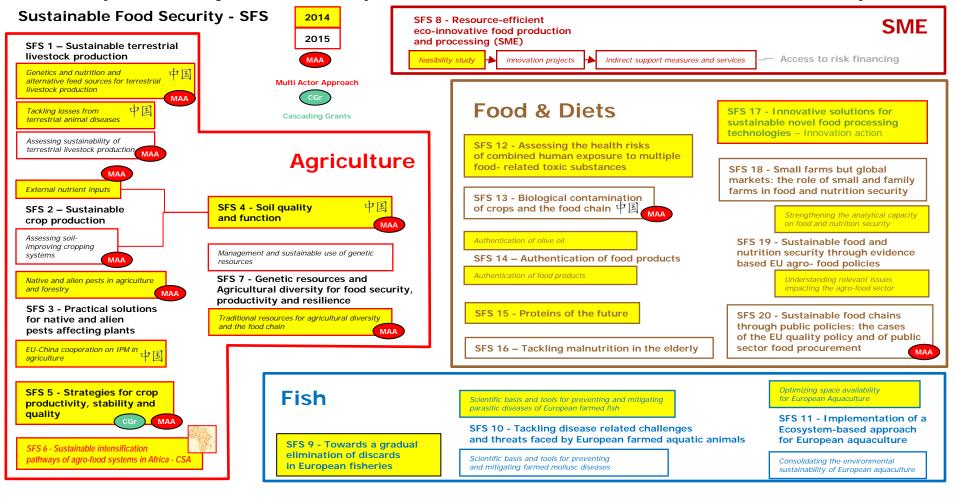






HORIZON 2020 (2014-2015)

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





Italian Delegation for the SC2: objectives, composition and strategy



SC2 Italian Delegation Objectives

To facilitate the participation of Italian public and private R&D&I performers (but also services and the society) in SC2 calls and to make it more successful, by providing information, promoting aggregation and supporting topics that might entail a successful Italian participation.

Italian participation in KBBE FP7 calls (MIUR data, on 2007-2012 period)

	Overall	with IT in	% with IT in	IT Position
No. proposals submitted	2936	1660	56	3
No. proposals granted	502	313	62	4

	Overall assigned	Assigned to IT	% assigned to IT	IT Position
Budget (€M)	1755	129	7	6

	Overall	Granted	% on all granted	IT Position
IT Coordination	427 (2% SME)	27	6	6

SC2 Italian Delegation strategy: composition

Representatives:

- ❖ Prof. Fabio Fava, Università di Bologna, Bologna
- ❖Dott. Stefano Bisoffi, CRA, Roma (Alternate)

Experts:

- ❖ Dott.ssa Marina Montedoro, Min. Agriculture & JPI FACCE
- ❖Ing. Giuseppina Monacelli, ISPRA & Min. Environment & JPI Water
- ❖ Dott.ssa Marina Leonardi, ENEA & Min Economical Dev, Roma
- ❖ Dott. Daniele Rossi, Federalimentare & Confindustria, Roma
- ❖Dott.ssa Giovina Ruberti, CNR Roma & JPI HDHL
- ❖Ing. PierPaolo Campostrini, CORILA Venezia & JPI Ocean
- ❖Dott. Pierfrancesco Moretti, CNR, Brussels & JPI Ocean
- ❖ Dott.ssa Catia Bastioli, Bioeconomy Panel, European Commission

NCP

- ❖Dott.ssa Serena Borgna, APRE, Roma
- ❖ Dott.ssa Chiara Pocaterra, APRE, Roma



Major Representative's role and activities

- □ Participating in the Programme Committee meetings (EU commission);
- ☐ Contributing to shaping content priorities in the relevant Work Programmes;
- ☐ Making the meeting reports available to all Representatives, Experts;
- □ Actively passing on important information to players in Italy (national, regional, sectorial);
- ☐ Participating in the draft of the national research plan (PNR)
- □ Participating in the regular exchange of the Representative for Horizontal Issues in H2020 (e.g. gender, open access);

Expert's role and activities

- □ Participating in the Programme Committee meetings if items on the agenda require the Experts' specific expertise and/or if an added value for supporting the Italian delegation can be expected;
- □ Supporting the Representatives both with regard to content issues, and
 - by mutual agreement also with regard to technical-administrative issues (e.g. participating in reporting, or in organising events)
- □ Actively passing on important information to players in Italy (national, regional, sectorial);

SC2 Italian Delegation strategy: Consultation Board "Consultation Board" **Technology Clusters** Representative **IT Technology DRAFT** Platforms, +Experts **Work Programme** Public/private +NCP associations **National consultation** on R&D&I priorities (by APRE) European Commission

Current IT SC2 "Consultation Board" composition (open to other relevant organizations, associations, etc.)

National Technology Platforms:

"Food for Life"
"Plants for the Future"
"Forestry"
"SusChem Italy"
"Biofuels"
"Mare"
"Organic farming"

Representatives of Italian Regions, associations, etc

AISSA

National Technology Clusters:

"Chimica Verde"

"AgroFood"

"Tecnologie per la mobilita' sostenibile terrestre e marina"

Joint Programming Initiatives, JPIs

"Healthy Diet for Healthy Life", "Ocean for Tomorrow", "FACCE", "Water Challenges"

Representative +Experts +NCP

Public-Private Partnerships PPPs, JTIs

"BBI", "SPIRE", "Connecting Climate Knowledge for Europe"

European Innovation Partnerships, EIPs

"AGRI"
"WATER"
"RAW Materials"

Knowledge Innovation Comm, KICs

"Climate Change"

Delegates IT in ETPs

"Water & sanitation"

IT delegates in HLG on KETS, ERA-NETS (ANIHWA ARIMNET I-II, CORE Organic, I-II e Plus, ERA CAPS, ERASysBIO+, FORESTERRA, ICT-AGRI I-II, C-IPM, RURAGRI Seasera, SUMFOREST, SUSFOOD etc) and COSTS ("Food and Agriculture", "Forests, their Products and Services")

The Future is Bio-Based

