Cuneo – 21 Marzo 2014

NUOVA PROGRAMMAZIONE EUROPEA: HORIZON 2020 E MISURE REGIONALI PER IL SETTORE AGROALIMENTARE

PRESENTAZIONE DEL PROGRAMMA HORIZON 2020:

Quadro generale e regole di partecipazione

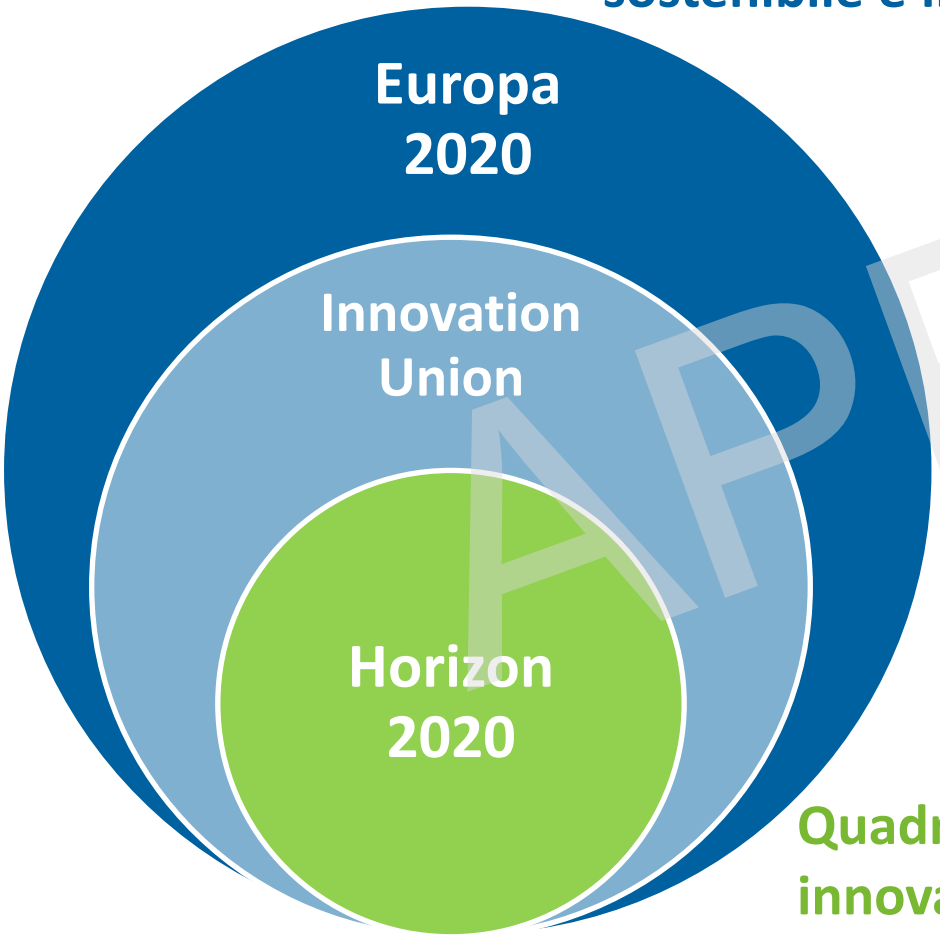
FOCUS SC2 : Bioeconomy

Serena Borgna

Punto Contatto Nazionale: Bioeconomy – NMP - ERC

borgna@apre.it

Strategia per una crescita intelligente, sostenibile e inclusiva



Iniziativa faro di sostegno alla ricerca e all'innovazione

Quadro strategico comune su ricerca e innovazione (2014- 2020)

VERSO HORIZON 2020

2007 - 2013

2014 - 2020

SEVENTH FRAMEWORK
PROGRAMME

Struttura del programma

Excellent Science

- **European Research Council**
  - Frontier research by the best individual teams
- **Future and Emerging Technologies**
  - Collaborative research to open new fields of innovation
- **Marie Skłodowska Curie actions**
  - Opportunities for training and career development
- **Research infrastructures** (including e-infrastructure)
  - Ensuring access to world-class facilities

Industrial Leadership

- **Leadership in enabling and industrial technologies**
  - ICT, nanotechnologies, materials, biotechnology, manufacturing, space
- **Access to risk finance**
  - Leveraging private finance and venture capital for research and innovation
- **Innovation in SMEs**
  - Fostering all forms of innovation in all types of SMEs

Societal Challenges

- **Health, demographic change and wellbeing**
- **Food security, sustainable agriculture, marine and maritime research & the bioeconomy**
- **Secure, clean and efficient energy**
- **Smart, green and integrated transport**
- **Climate action, resource efficiency and raw materials**
- **Inclusive, innovative and reflective societies**
- **Security society**

European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

CARATTERISTICHE

- Un **singolo programma** che riunisce tre iniziative fino ad ora separate
- **Value chain** che va dalla ricerca di frontiera , allo sviluppo tecnologico, dimostrazione, valorizzazione dei risultati e innovazione
- **Innovazione**, in tutte le sue forme
- Focus su **societal challenges**
- **Accesso semplificato** per le imprese, le università, etc in tutti gli stati europei
- Sinergie con i **Fondi Strutturali**

Cosa cambia?

7PQ

- Linear thematic calls
- Research plan
- Focus on R&D
- Quantity driven
- Resource intensive
- Linear approach (project design)
- Focus on output

Horizon 2020

- **Challenge based calls (inter-pillars)**
- Business plan
- **Focus on added value of Innovation**
- Demand/value driven
- Brain intensive (engineering)
- Synergistic approach (*programme engineering* -SF)
- Focus on outcome

THEMATIC BASED

NEW CONCEPT

CHALLENGE BASED - SYSTEMIC

Accordo sul Budget

*28 Giugno 2013

European Commission | EUROPEAN PARLIAMENT | CONSILIUM

70,2 Miliardi di € - prezzi costanti

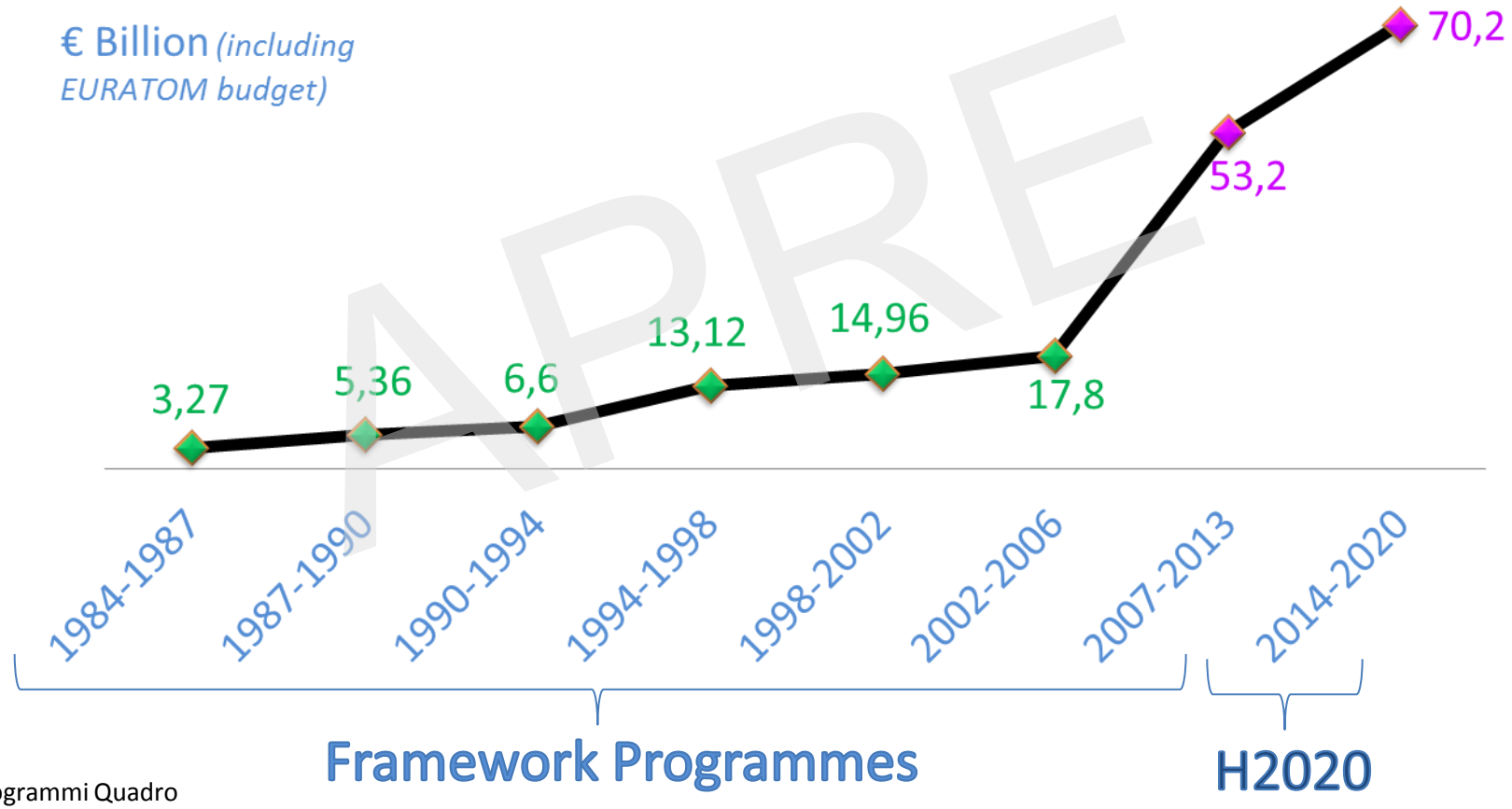
(incluso EURATOM)

78,6 Miliardi di € - prezzi correnti

Quadro finanziario pluriennale

2014/2020 - MFF

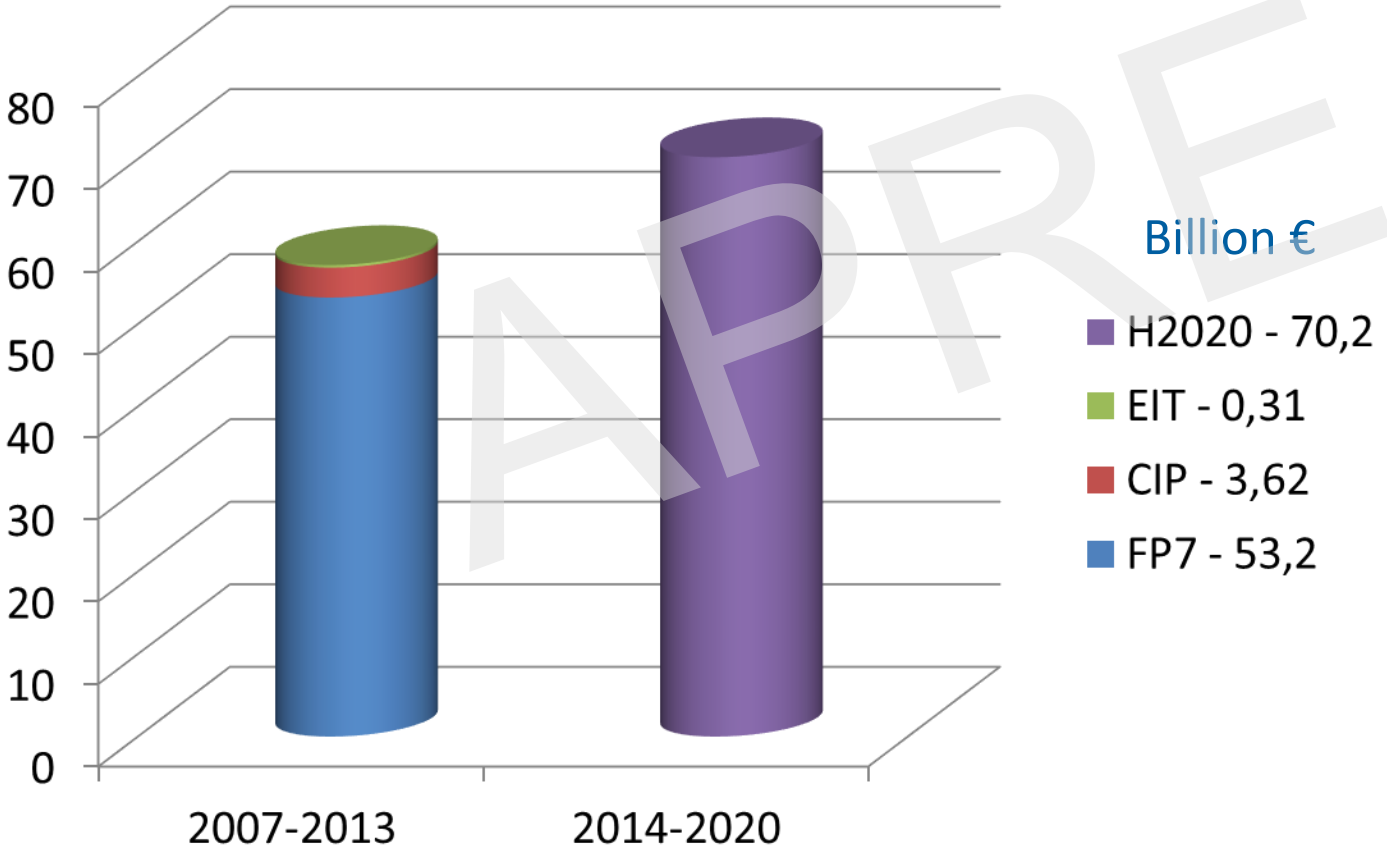
Budget da FP1 a Horizon 2020



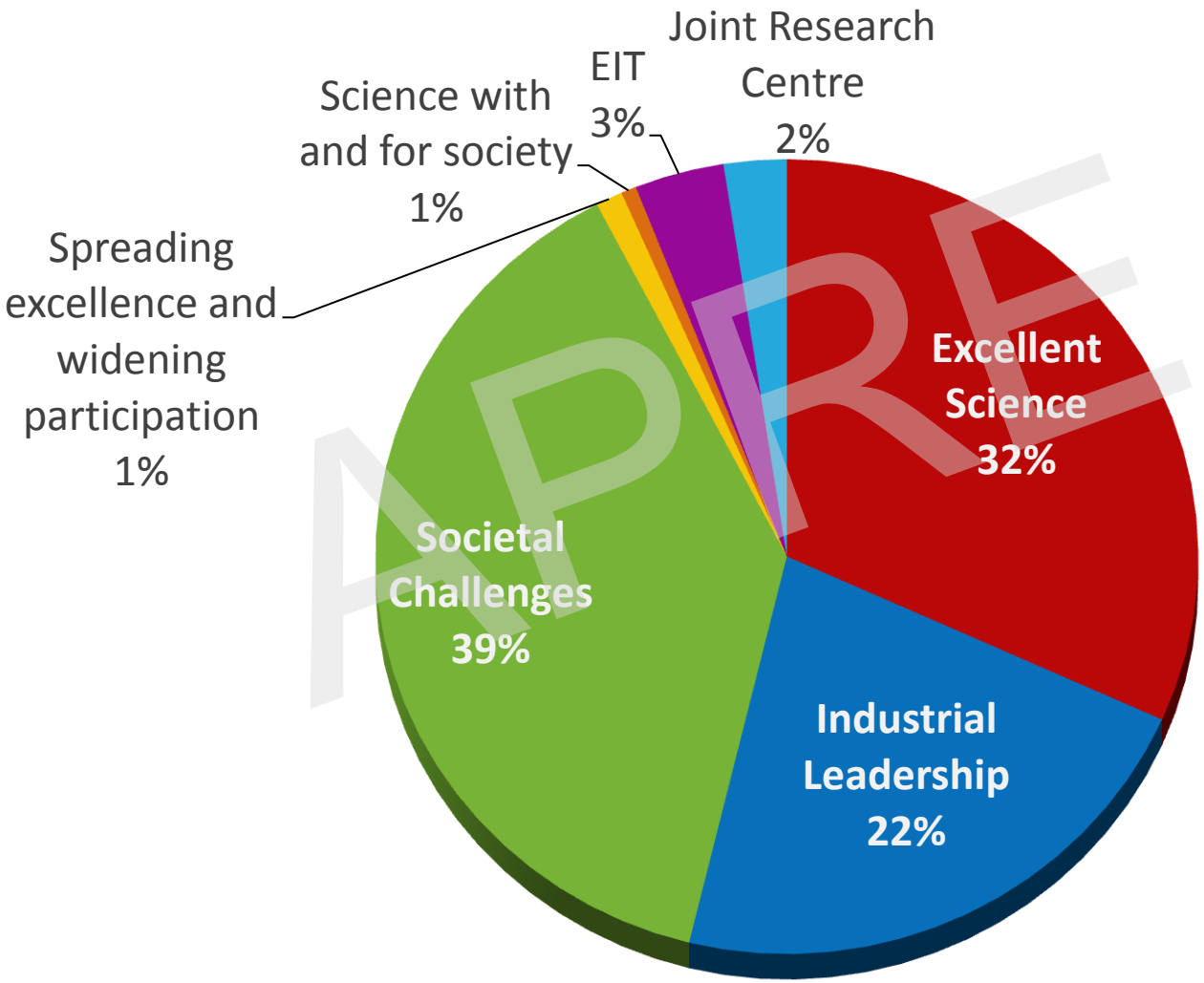
Programmi Quadro quadriennali e quinquennali

Programmi Quadro settennali.

Budget: past & present

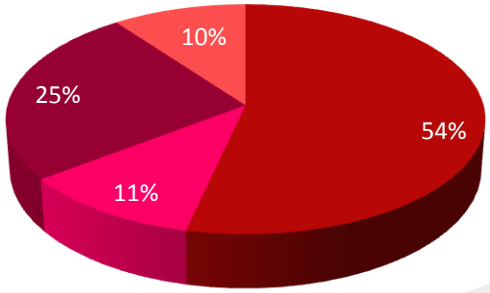


Ripartizione finanziaria



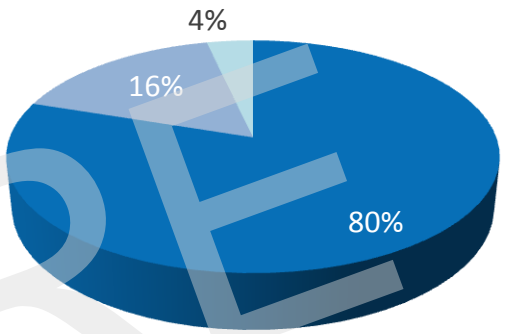
Il budget per le attività

Excellent Science



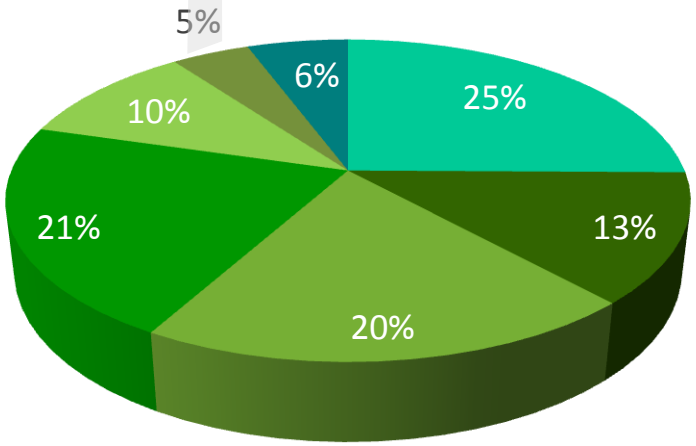
- European Research Council
- Future and Emerging Technologies
- Marie Skłodowska Curie Actions
- European Research Infrastructures (including eInfrastructures)

Industrial Leadership



- Leadership in enabling and industrial technologies
- Access to risk finance
- Innovation in SMEs

Societal challenges

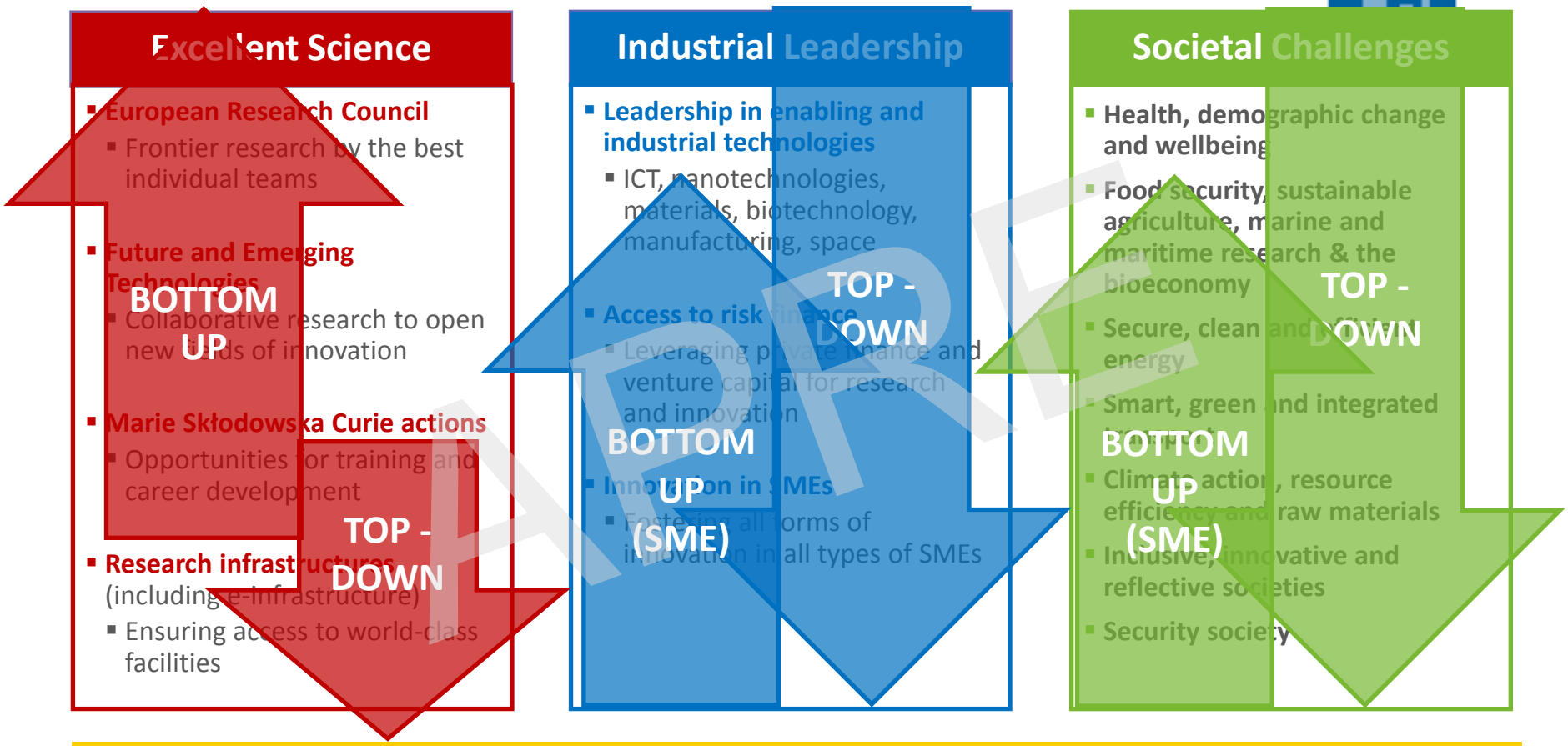


- Health, demographic change and wellbeing
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy:
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- inclusive, innovative and reflective Societies
- Secure Societies

Il budget per le attività /2

	Compromise % 27.06.13	Million € (current prices
I. Excellent Science, of which:	31,73%	24.441
1. ERC	17,00%	13.095
2. FET	3,50%	2.696
3. MS Curie Actions	8,00%	6.162
4. Research Infrastructures	3,23%	2.488
II. Industrial Leadership, of which:	22,09%	17.016
Leadership in Enabling and Industrial Technologies	17,60%	13.557
Access to Risk Finance	3,69%	2.842
Innovation in SME's	0,80%	616
II.I Societal Challenges, of which:	38,53%	29.679
Health, demographic change and well being	9,70%	7.472
Food security, sustainable agriculture, marine and maritime research & the bio economy	5,00%	3.851
Secure, clean and efficient energy	7,70%	5.931
Smart, green and integrated transport	8,23%	6.339
Climate action, resource efficiency and raw materials	4,00%	3.081
Europe in a changing world – Inclusive, innovative and reflective society	1,70%	1.309
Secure societies – Protecting freedom and security of Europe and its citizens	2,20%	1.695
Spreading Excellence and Widening Participation	1,06%	816
Science with and for society	0,60%	462
European Institute of Innovation and Technology - EIT	3,52%	2.711
JRC Non-nuclear	2,47%	1.903
Total EU REGULATION	100,00%	77.028
Total EURATOM REGULATION 2014-2018	100,00%	1.603

Struttura del programma



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1° PILLAR

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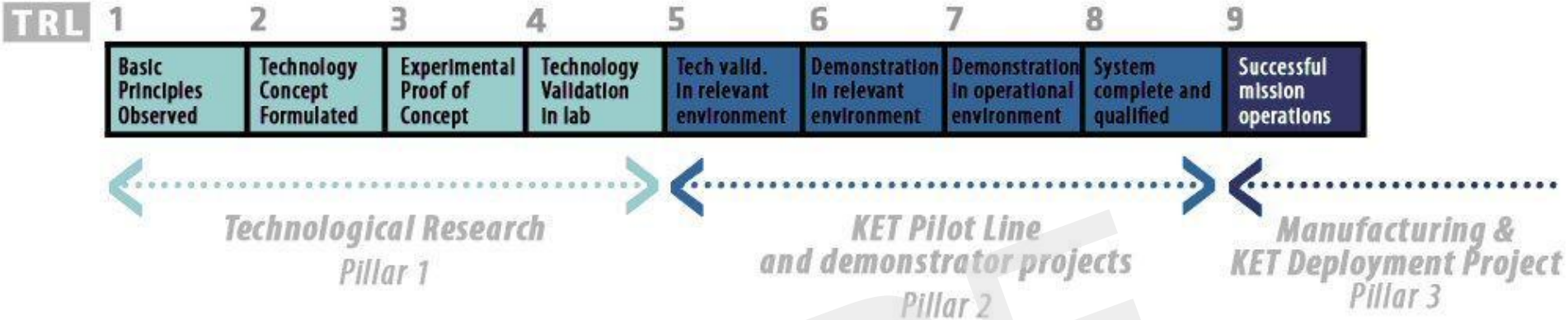
COSA SONO LE KET?
Key Enabling Technologies

Tecnologie "ad **alta intensità di conoscenza** e associate ad elevata intensità di **R & S**, a **cicli d'innovazione rapidi**, a consistenti spese di investimento e a **posti di lavoro altamente qualificati**. Rendono possibile **l'innovazione nei processi, nei beni e nei servizi** in tutti i settori economici e hanno quindi rilevanza sistemica. Sono **multidisciplinari**, interessano tecnologie di diversi settori e tendono a convergere e a integrarsi. Possono aiutare i leader nelle tecnologie di altri settori a trarre il massimo vantaggio dalle loro attività di ricerca"

*Current situation of key enabling technologies in Europe, SEC (2009)

- Photonics
- Manufacturing
- Biotechnology
- Advanced Materials
- Micro/Nanoelectronics
- Nanotechnologies



TRL 1 – basic principles observed
TRL 2 – technology concept formulated
TRL 3 – experimental proof of concept
TRL 4 – technology validated in lab
TRL 5 – technology validated in relevant environment (industrial environment in the case of key enabling technologies)
TRL 6 – technology demonstrated in relevant environment (industrial environment
in the case of key enabling technologies)
TRL 7 – system prototype demonstration in operational environment
TRL 8 – system complete and qualified
TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

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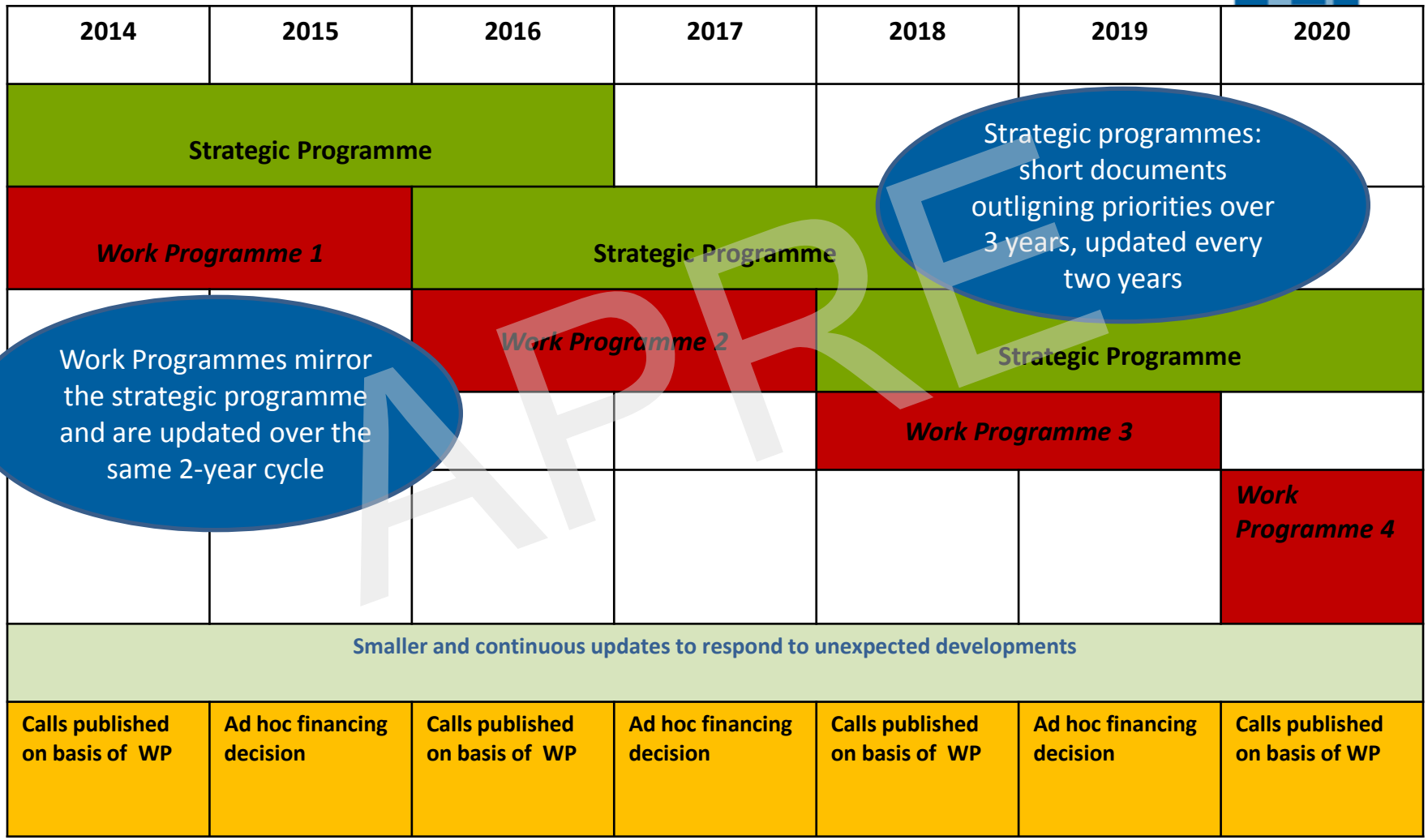
Strategic programming approach



Strategic programmes: short documents outligning priorities over 3 years, updated every two years

Work Programmes mirror the strategic programme and are updated over the same 2-year cycle

Leitmotif of the first work programme is the

ECONOMIC CRISIS AND THE PATH TO SUSTAINABLE GROWTH

A STRATEGIC PROGRAMMING APPROACH

- Work programme elaborato sulla base di una programmazione strategica
- Per aumentare l'impatto del finanziamento e per un maggiore approccio integrato
- 'Key drivers' usate per identificare le aree sulle quali le risorse e gli sforzi devono essere focalizzati per massimizzare il loro impatto

competitività sostenibile, l'innovazione e la crescita;	coinvolgimento dell'industria, incluse le PMI;	accesso ai finanziamenti;	sviluppo di nuove conoscenze e miglioramento delle skills;
diffusione di tecnologie abilitanti;	misure per affrontare il *divide* tra ricerca e innovazione;	sostegno forte partnership con gli Stati membri, e	approccio strategico alla cooperazione internazionale.

PERSONALISING HEALTH AND CARE	SC1 - Health SC2 - Bioeconomy
SUSTAINABLE FOOD SECURITY	SC2 - Bioeconomy
BLUE GROWTH: UNLOCKING THE POTENTIAL OF THE OCEANS	SC2 – Bioeconomy SC3 – Energy SC4 – Transport SC5 – Environment
SMART CITIES AND COMMUNITIES	SC3 – Energy SC4 – Transport
COMPETITIVE LOW-CARBON ENERGY	SC3 – Energy
ENERGY EFFICIENCY	SC3 – Energy SC5 – Environment
MOBILITY FOR GROWTH	SC4 – Transport
WASTE: A RESOURCE TO RECYCLE, REUSE AND RECOVER RAW MATERIALS	SC5 – Environment SC2 – Bioeconomy LEIT – NMPB
WATER INNOVATION: BOOSTING ITS VALUE FOR EUROPE	SC5 – Environment SC2 – Bioeconomy LEIT – NMPB
OVERCOMING THE CRISIS: NEW IDEAS, STRATEGIES AND GOVERNANCE STRUCTURES FOR EUROPE	SC6 – SSH
DISASTER-RESILIENCE: SAFEGUARDING SOCIETY AND ADAPTING TO CLIMATE CHANGE	SC7 – Security SC5 – Environment
DIGITAL SECURITY	SC7 – Security

Sustainable food security *(see Work Programme part 9 - 'Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy')*

Ensuring availability and access to sufficient safe and nutritious food is a key priority that impacts all EU citizens and needs to be ensured today and in the future. At the same time the production and processing of food is a key economic activity providing jobs, skills and training, attracting investments, supporting rural and urban economies and also shaping landscapes. Given the economic scale of the food sector, the potential gains from research and innovation, and the structure of the sector with a strong participation of SMEs, this focus area will develop competitive and resource-efficient aquatic and terrestrial food production systems covering: eco-intensification of production; sustainable management of natural resources, including the accurate valuation of ecosystems services, while addressing climate change mitigation and adaptation; technologies for a sustainable food chain; safe foods and healthy diets for all; and a global food security system. Enabling technologies and space enabled applications, adequately set in a global context, will be an important element in achieving these goals. Overall, research and innovation actions within this challenge will cover the whole food chain, including both the supply and demand sides.

The economic and strategic importance of the agri-food sector is reflected in the following figures: agricultural exports in 2011 were worth €105 billion, or 7% of the total value of EU exports; Europe's food and drink industry is the largest manufacturing industry in the EU and in 2010 generated an annual turnover of €956 billion, almost half by SMEs, with over 4 million jobs. The whole agri-food sector employs 17 million people. Actions in this area will be in line with the EU Approach to Food Security; the EU Europe 2020 Resource-efficient Europe Flagship; the European Innovation Partnership 'Agricultural Productivity and Sustainability'; the Post 2015 Development Cooperation Agenda; the EU Biodiversity Strategy to 2020; the Common Fisheries Policy and the reform of the Common Agricultural Policy. It is expected that efforts in research will achieve a 20% gain in resource use efficiency (Roadmap to a Resource Efficient Europe); help reverse the diminishing trend of productivity gains in primary production by 2020 (European Innovation Partnership); enable food safety policy to be continually adjusted in the light of new scientific evidence (European Consumer Agenda); and provide the integrated EU approach needed for reducing ill health due to poor nutrition, overweight and obesity.

Blue growth: unlocking the potential of seas and oceans *(see Work Programme part 9 - 'Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy'; with contributions from part 10 – 'Secure, clean and efficient energy', and part 11 – 'Smart, green and integrated transport', and part 12 - 'Climate action, environment, resource efficiency and raw materials')*

Rapid technological progress in working offshore in ever-deeper waters, the need to reduce greenhouse gas emissions, and the need to look at how the 71 % of the planet that is seas and oceans can deliver human necessities such as food and energy in a sustainable way have opened up an opportunity for blue growth with the aim to harness the huge potential of Europe's oceans, seas and coasts for jobs and growth. This focus area addresses this overall challenge through five cross-cutting priority domains supporting the Blue Growth Agenda: valorising the diversity of marine life; sustainable harvesting

the deep-sea resources; new offshore challenge; sea and ocean observation technologies; and the socio-economic dimension. The aim of the focus area is to improve the understanding of the complex interrelations between various maritime activities, technologies, including space enabled applications, and the marine environment to help boost the marine and maritime economy by accelerating its potential through R&I. It will enhance sectoral and cross-sectoral cooperation by building on major international, regional and national initiatives.

At present sea and ocean bio-resources provide 15% of animal protein consumed globally; blue biotechnology has an expected yearly growth rate of 5 to 10%; deep-sea minerals extraction could gradually represent up to 10% of the world's minerals; marine renewable energy is rapidly extending to 40 GW of offshore wind capacity by 2020 and an exponentially rising 3.6 GW of sea and ocean energy by 2030. The Blue Growth economy in the EU is expected to grow to 7 million people employed by 2020. Actions in this area will be in line with the EU 'Blue Growth' strategy and relevant EU policies (e.g. Sea Basin Strategies and Action Plans) as well as provide support for international cooperation.

Waste: a resource to recycle, reuse and recover raw materials *(see Work Programme part 12 – 'Climate action, environment, resource efficiency and raw materials', with contributions from part 5 - 'Nanotechnologies, Advanced materials, Advanced manufacturing and processing, Biotechnology', and from part 9 - 'Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy').*

Proper waste prevention and management represent a major opportunity for European society, notably in terms of job creation, access to valuable raw materials and resources, and cost effective ways of reducing greenhouse gases. This focus area therefore aims to boost the development of innovative, environmentally friendly and cross-sectoral waste management solutions, to build a better understanding of the environmental impact of human activities, and to seize new and significant market opportunities by positioning Europe as a global market leader in related innovation and technology: the global waste market, from collection to recycling, is estimated at €400 billion p.a.. Moreover full compliance with EU waste policy could create an additional extra 400 000 jobs within the EU and an extra annual turnover of €42 billion. It also aims to raise societal awareness in order to use resources efficiently, turning the waste sector into a carbon sink, as well as mitigate the dependency of Europe on imported raw materials. Activities will therefore address the whole production and consumption cycle, from waste prevention and the design of products and processes to waste disposal or re-use, including organisational, management and behavioural changes, and fostering business models that bring residual waste close to zero. Activities will focus on key sectors, such as industrial manufacturing, agriculture and food and will encompass the collection, recovery, recycling and transformation of valuable materials from urban and industrial waste streams, including municipal waste, construction and demolition waste, high tech products, agri-food and other bio-waste. The Public-Private Partnerships on Sustainable Process industries and on Bio-Based Industries will contribute to the objective of this focus area. This focus area will respond to needs identified in the European Innovation Partnership on Raw Materials, which also covers the supply of raw materials through sustainable extraction (e.g. novel mining techniques) and finding substitutes. Actions in this area will be in line with the Europe 2020 Resource-efficient Europe Flagship – in particular its milestone that by 2020 waste will be managed as a resource – the Eco-innovation Action Plan, the Communication 'Innovating for sustainable growth: a bioeconomy for Europe', the Raw Material Initiative strategy and the European Innovation Partnership on Agricultural Productivity and Sustainability.

Work Programme TOPICS Structure

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 describing specific approaches
EXPECTED IMPACT	• describe the key elements of what is expected to be achieved in relation to the specific challenge

TOPIC ICT Esempio

ICT 29 – 2014 Development of novel materials and systems for OLED lighting[35]

Specific Challenge: In the last 10 years, European industry (both SMEs and large companies) has made significant investments in OLED technologies, i.e., materials, devices and manufacturing processes. However, major S&T progress and research and innovation (R&I) investments are required in OLEDs, in particular for the realisation of flexible, high brightness light sources over large areas. The further technological development of OLEDs is expected to give Europe a leading position on the world general lighting market and create new manufacturing jobs for novel consumer products. Moreover, the move to OLEDs would help in reducing the amount of electricity consumed by lighting and limiting carbon dioxide emissions.

Scope:

Research & Innovation Actions should focus on materials, process and device technology for OLED lighting. The aim is to realise OLED devices over larger surfaces, with higher brightness, larger uniformity and longer lifetimes. A demonstrator should be provided at the end of every project. A specific target for OLED lighting is energy efficacy of above 100 lm/W, considering also improved out-coupling efficiency. The materials have to allow for a competitive lifetime for all colours and white light (lifetime of several hundred hours at 97% of the original intensity). Attention should be paid to recyclability issues and the environmental impact of the materials and systems as appropriate. Proposals should involve material suppliers, OLED manufacturers or suppliers and OLED system integrators.

Expected impact:

- Cost performance breakthroughs - lighting systems with production costs of 1€/100 lm.
- Secured and reinforced industrial technology leadership and substantially increased market presence in lighting.
- Improved business opportunities and value creation in Europe in lighting by reinforced cooperation along the value chain.

Type of Action:

Research & Innovation Actions – *Proposals requesting a Small contribution* are expected

The conditions related to this topic are provided at the end of this call and in the General Annexes.

TIPOLOGIE DI AZIONI

TIPOLOGIE AZIONI

Ricerca collaborativa

- Research and innovation action
- Innovation action
- Strumento PMI

Co –Fund

- Eranet
- Pre – commercial procurement (PCP)
- Pubblic Procurement of Innovative solution (PPI)

CSA

- Coordination and Support Action

(+)Innovazione

- Prize
- Fast track to innovation

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Progetti collaborativi

R&I actions

Basic research, applied research, technology development and integration, and testing e validation on a small scale prototype in a laboratory or simulated environment

Funding rate: 100% costi diretti, 25% costi indiretti

I actions

Prototyping, testing, demostrating, piloting, large - scale product validation and market replication

Funding Rate: 70% costi diretti (100% no profit); 25% costi indiretti

a. Demostration or pilot

b. Market replication

Research and Innovation Action

DESCRIPTION: Action primarily consisting of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment.
Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

FUNDING RATE: maximum 100% (direct costs)

Innovation Action

DESCRIPTION: Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

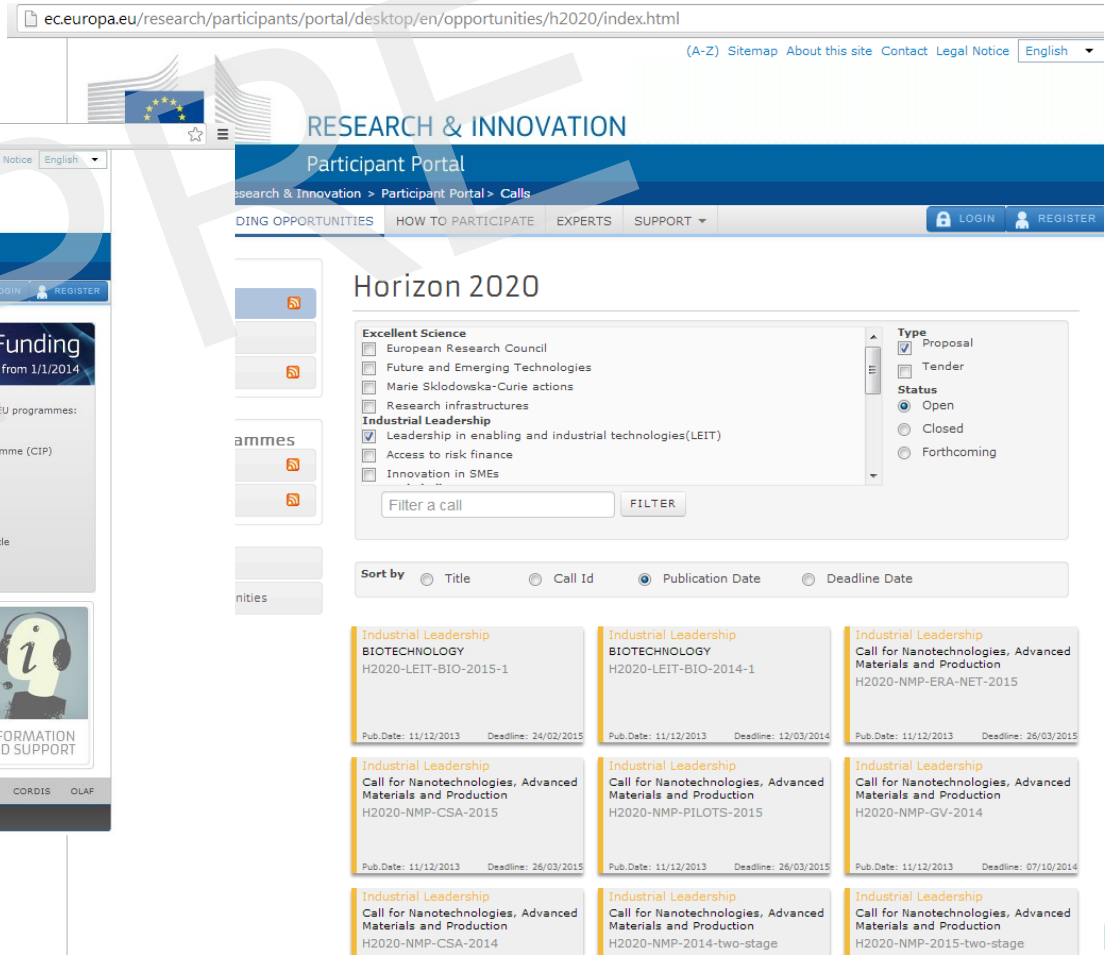
A **'demonstration or pilot'** aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.

A '**market replication'** aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market due to market failures/barriers to uptake.

FUNDING RATE: maximum 70% - direct costs (except for non-profit legal entities, where a maximum rate of 100%)

RESEARCH PARTICIPANT PORTAL

http://ec.europa.eu/research/participants/portal/page/home



SOGGETTI GIURIDICI PARTECIPANTI (ART.6)/ ELEGGIBILITA' PER IL FINANZIAMENTO (ART.9)

CHI PUO' PARTECIPARE?

- **Qualsiasi soggetto giuridico**, universita' o centro di ricerca stabilito in uno stato membro o associato* o in un paese terzo
- **JRC** (Joint Research Centre)
- **Organizzazioni internazionali di interesse EU**
- **Organizzazioni internazionali** e soggetti stabiliti in **paesi terzi** in aggiunta alle condizioni minime

*Albania, Bosnia-Herzegovina, CroaZia, FYR Macedonia, Islanda, Israele, Liechtenstein, Montenegro, Norvegia, Serbia, Svizzera, Turchia

CHI PUO' RICEVERE IL FINANZIAMENTO?

- **Qualsiasi soggetto giuridico**, universita' o centro di ricerca stabilito in uno stato membro o associato o in un paese terzo
- **JRC** (Joint Research Centre)
- **Paesi ICPC**
- Organizzazioni **internazionali** di interesse EU

Organizzazioni internazionali e soggetti stabiliti in **paesi terzi non ICPC** solo eccezionalmente se previsto dal WP/accordo bilaterale oppure se essenziale per l'azione

POSSIBILITA' DI JOINT CALL CON I PAESI TERZI E LE ORG. INTERNAZIONALI

CONDIZIONI MINIME DI PARTECIPAZIONE (ART.8)

3 SOGGETTI GIURIDICI indipendenti stabiliti in
3 diversi stati membri o associati

1 SOLO PARTECIPANTE

ERC, SME Instrument, Azioni Co-fund, CSA, Azioni A Supporto Della Mobilita' E Della Formazione Dei Ricercatori (Marie Curie)

CONDIZIONI AGGIUNTIVE: possono essere previste nel work programme (n. di partecipanti, tipologie di partecipanti, etc…)

COOPERAZIONE INTERNAZIONALE:

strategia verso H2020

EUROPA HA BISOGNO DI IMPEGNARSI PIÙ ATTIVAMENTE E STRATEGICAMENTE NELLA COOPERAZIONE INTERNAZIONALE

TRE OBIETTIVI PRINCIPALI:

- **Rafforzare** l'eccellenza e l'attrattivita dell'Unione in ricerca e innovazione così come la sua competitività industriale ed economica
- **Raccogliere** le sfide sociali globali
- **Supportare** le politiche estere dell'Unione

COMBINARE AZIONI APERTE E AZIONI MIRATE

OPENNESS

- Horizon 2020 apre alla partecipazione da tutto il mondo nei tre pilastri
- Revisione della lista dei paesi che ricevono finanziamento automatico

TARGETED ACTIONS

- ***Tematico***: identificare le aree di cooperazione internazionale in base all' agenda politica dell'Unione
- Differenziazione per *paesi/regioni* nella definizione dei partner di cooperazione
- → *multi-annual roadmaps* per la cooperazione con partner chiave

QUALI PAESI

Enlargement and neighbourhood countries, and EFTA	Industrialised countries and emerging economies	Developing countries
• Focus su allineamento con ERA • Supporto alle politiche di allargamento e vicinato (supporto nello sviluppare un comune 'Knowledge and Innovation Space') • *(compresi Associated Countries)*	• Focus su competitività • Affrontare sfide globali • Opportunità di business e accesso a nuovi mercati Emergenti economies:**Brasile, Russia, India, Cina + Messico**	• Supportare politiche di sviluppo costruendo partnerships che contribuiscono allo sviluppo sostenibile • Indirizzate a sfide rilevanti (e.g. poverty-related diseases, energy and food security, biodiversity)

*LIST: general **ANNEX A** WP

AREE DI INTERESSE IDENTIFICATE IN BASE A :

- Capacità in R&I
- Contributo ai commitment internazionali
- Apertura del mercato
- Frameworks in atto per avviare una cooperazione

FINANZIAMENTO

Horizon 2020 is open to participation from across the world

AUTOMATIC FUNDING:

- Member States (including overseas departments and overseas territories)
- Associated Countries

Participants from other countries only funded in **EXCEPTIONAL** (included BRIC + Mexico) **CASES:**

- when provision is made in the call text
- bilateral agreement (e.g. Health challenge – NIH)
- when the Commission deems it essential (case by case assessment)

SVIZZERA: si o no?

La Svizzera **NON** è più ad oggi stato associato associato ad h2020.

È **un paese terzo, industrializzato**, e come tale può essere partner in un progetto (al superamento delle condizioni minime di eleggibilità) ma non riceve più finanziamento automatico.

- OPEN PARTICIPATION/NO AUTOMATIC FUNDING -

TARGET ACTIONS: esempi

- Topic con cooperazione internazionale richiesta
- SFS -1-2014-2015: Sustainable terrestrial livestock production

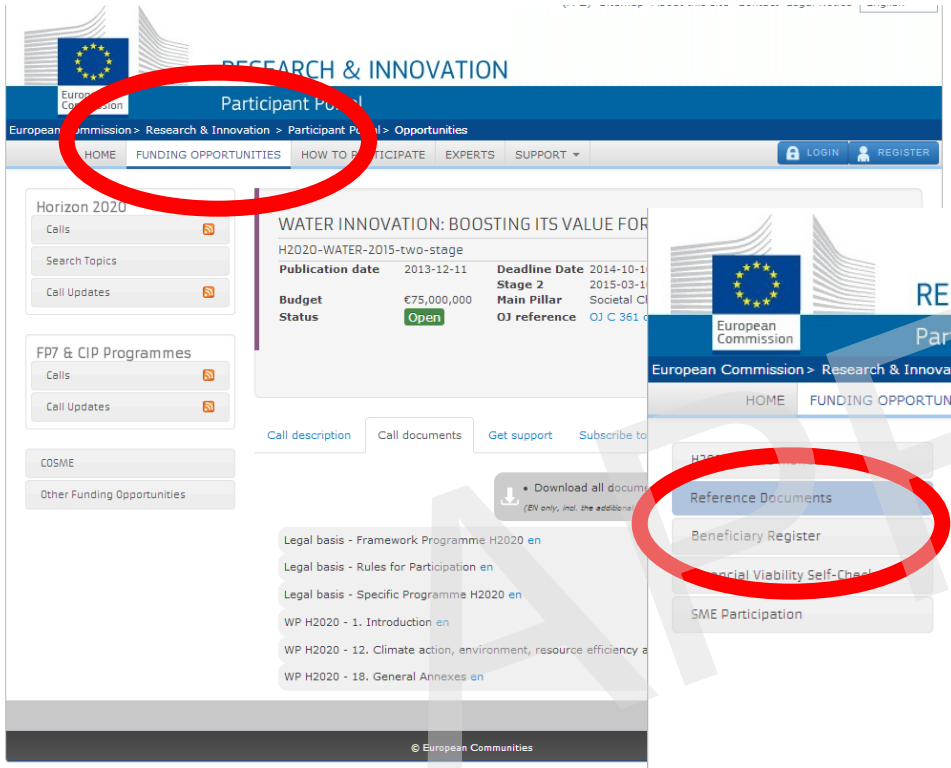
B. [2014] Tackling losses from terrestrial animal diseases

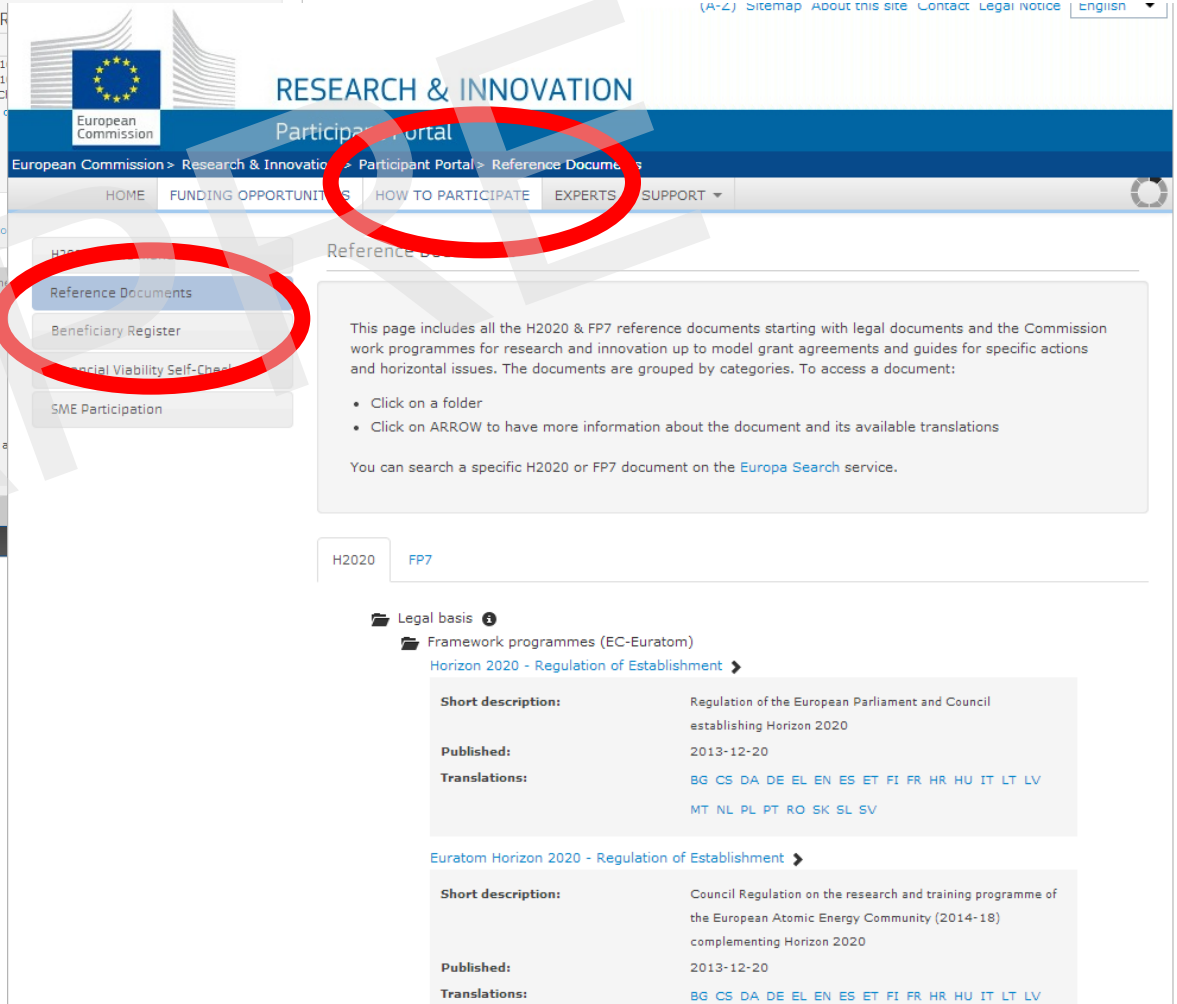
The goal is to better understand the interaction between the immune system of swine, poultry and ruminants and their specific pathogens, in particular pathogens associated with high production losses and to develop innovative and multivalent vaccines taking into account the individual variability in vaccine responsiveness and different developmental stages. Both the use of current and new vaccine vectors (including DNA & DIVA vaccines) could be foreseen together with novel and easy-to-use delivery systems and efficient adjuvants with the aim of fostering an earlier onset of protection and a longer duration of immunity. New biomarkers and phenotypes would be valuable to help breeding strategies for increased disease resistance.

Proposals should develop at least two vaccines at the demonstration level and address at least poultry and/or swine, and/or ruminants. Involvement of the animal pharmaceutical industry is expected to translate the finding into marketable products. Significant SME involvement should be ensured. In line with the objectives of the EU strategy for international cooperation in research and innovation and in particular with the implementation of the EU-China dialogue, proposals are encouraged to include third country participants, especially those established in China[14].

CHINA

DOVE TROVARE I DOCUMENTI





DOCUMENTI UTILI

- Work Programme (introduction e WP specifico per tema)
- General Annexes (A-K)
- Template (per tipologia di azione)
- Regolamenti (1.Horizon 2020 - Regulation of Establishment; 2. Euratom Horizon 2020 - Regulation of Establishment; 3. Rules for participation; 4 Specific programme; 5. European institute of Innovation and Technology (EIT))
- Annoted grant agreement

PRESENTAZIONE ELETTRONICA

- ✓ ECAS password
- ✓ PICs per tutti I partners
- ✓ PREPARAZIONE della PROPOSTA,
  - On-line per la parte strutturata (5 sezioni)
  - Upload della parte non strutturata (template fornito dalla CE, da caricare in pdf)
- ✓ SOTTOMISSIONE DELLA PROPOSTA
- ✓ Validation checks
- ✓ PRESENTAZIONE COMPLETA entro la SCADENZA delle17h00
- ✓ Tasso di fallimento nella presentazione= ± 1%
- ✓ Unica ragione per il fallimento; sottomissione last minute
  - Problemi tecnici
  - Errori indotti dal panico (es. Caricamento della versione errata)
  - Caricamento tardivo, oltre la scadenza del bando

TITOLOGIE DI SOTTOMISSIONE

SOTTOMISSIONE IN ONE STAGE	SOTTOMISSIONE IN DOPPIO STAGE
• R&A/IA, CSA CRITERI: • Eccellenza, • Impatto • Implementazione • Limiti pagina : 70 (R&IA), 50 (CSA)	• R&IA, IA CRITERI: • Eccellenza • Impatto (parte) • Limiti pagina: 15 (att.ne eccezioni) inclusa cover page

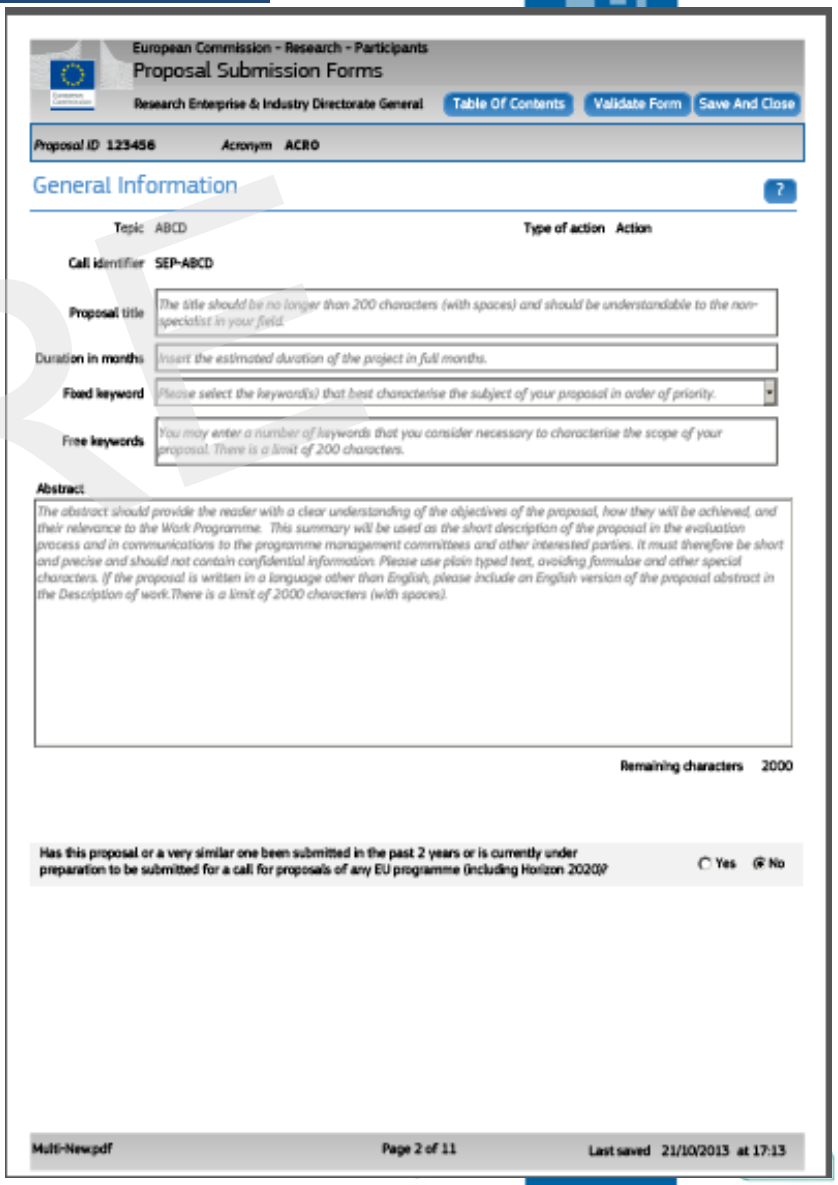
PARTE STRUTTURATA – online 1/2

SEZIONE 1

- *Titolo, acronimo, obiettivo etc.*
- *Keywords (fisse e libere)*
- *Abstract della proposta (2000 caratteri max)*
- *Presentazioni precedenti/simultanee*

SEZIONE 2 (1 form per partner)

- *Participant Identification Code (PIC) obbligatorio!*
- *Dipartmento*
- *Dipendenza*
- *Contatti*



PARTE STRUTTURATA – online 2/2

SEZIONE 3

- *Costi e contributo UE*

3 - Budget

Participant	(A) Direct personnel costs/€	(B) Other direct costs/ €	(C) Sub-contracting costs/€	(D) Costs of providing financial support to third parties/€	(E) Costs of contri-butions provided by third parties which are not used on the beneficiary's premises/€	(F) Indirect Costs/€ (=0.25(A+B-E))	(G) Total estimated eligible costs/€ (=A+B+C+D+F)	(H) Reimbursement rate	(I) Max. amount of the grant / € (=G*H)	(J) Requested amount of the grant / €
	0	0	100%	0		0	0	100%	0	
Total	0	0	0	0		0			0	

SEZIONE 4

- *Questionario su etica*

SEZIONE 5

- *Questionario sul bando*

B. PARTE NON STRUTTURATA

TECHNICAL ANNEX

ORGANIZZATA SULLA BASE DEI CRITERI DI VALUTAZIONE

- Eccellenza
  - Es. Objectives, concept, progress beyond state-of-art...
- Impatto
  - Es. Potential impact (*con riferimento al WP*); misure per massimizzare l'impatto (*disseminazione, comunicazione, sfruttamento*)
- Implementazione
  - Descrizione dei work packages
  - Informazione su parti terze e subcontraenti

TEMPLATE FORNITO DAL SISTEMA DI SOTTOMISSIONE ELETTRONICA (.RTF)

TEMPLATE PROPOSTA

- Uno per ogni tipologia di attività (R&IA, IA, CSA, ERANET, PCP, PPI,…)
- Differenziazione tra proposta in uno o due step
- Disponibile template generale e valido per ogni tema:
- Template specifico una volta registrata la proposta su R&I PP

STRUTTURA PARTE B

COVER PAGE

1. EXCELLENCE

1.1 Objectives*

1.2 Relation to the work programme *

1.3 Concept and approach*

1.4 Ambition*

2. IMPACT

2.1 Expected impacts *

2.2 Measures to maximise impact

a) Dissemination and exploitation of results

b) Communication activities

3. IMPLEMENTATION

3.1 Work plan — Work packages, deliverables and milestones

3.2 Management structure and procedures

3.3 Consortium as a whole

3.4 Resources to be committed

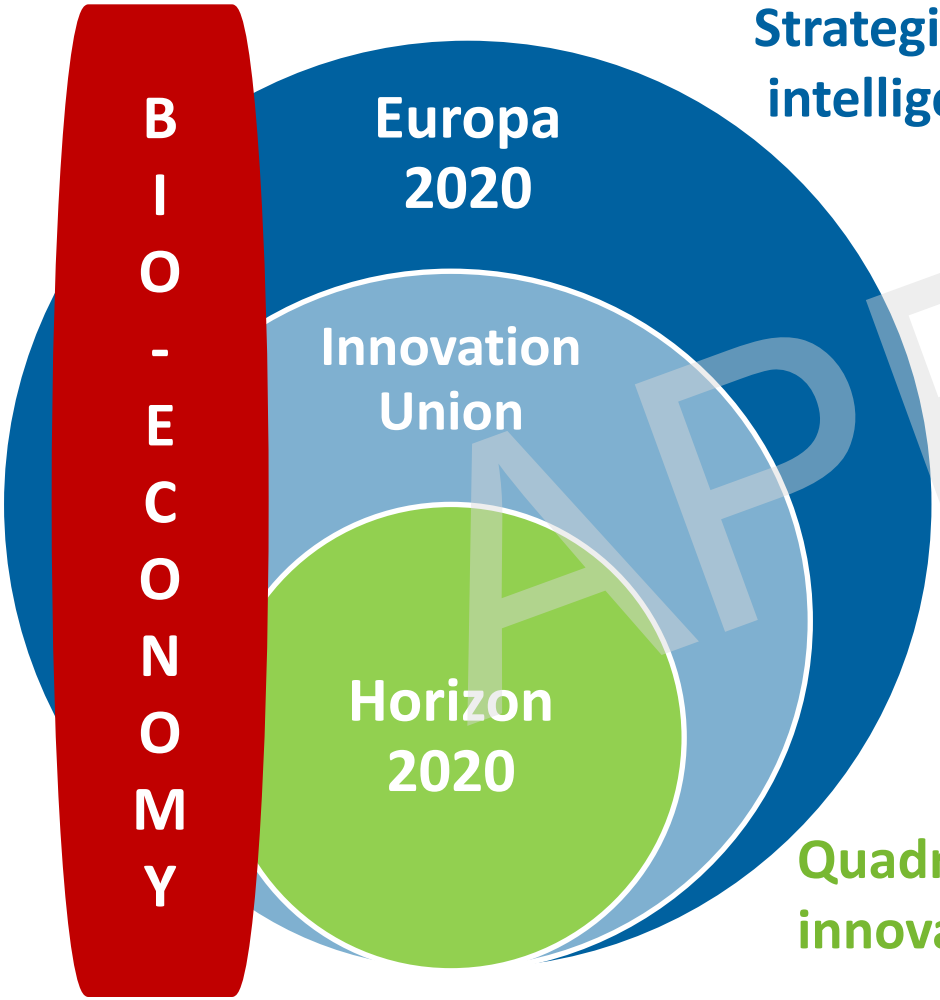
4. Members of the consortium

5. Ethics and Security

Focus

SOCIETAL CHALLENGE 2

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



Strategia per una crescita intelligente, sostenibile e inclusiva

Iniziativa faro di sostegno alla ricerca e all'innovazione

Quadro strategico comune su ricerca e innovazione (2014- 2020)

La Innovation Union/1

Policy

COM(2012) 60: «L'innovazione per una crescita sostenibile: una bioeconomia per l'Europa (Feb. 2012)»

- **Obiettivo**: creare una società più innovatrice e un'economia a emissioni ridotte, conciliando l'esigenza di un'agricoltura e una pesca sostenibili e della sicurezza alimentare con l'uso sostenibile delle risorse biologiche rinnovabili per fini industriali, tutelando allo stesso tempo la biodiversità e l'ambiente.
- **Piano strategico:** sviluppare tecnologie e processi produttivi nuovi destinati alla bioeconomia; sviluppare mercati e competitività nei diversi settori della bioeconomia; e, infine, stimolare una maggiore collaborazione tra i responsabili politici e le parti interessate.

Research and Innovation

enterprise europe network

Struttura del programma

Excellent Science

- **European Research Council**
  - Frontier research by the best individual teams
- **Future and Emerging Technologies**
  - Collaborative research to open new fields of innovation
- **Marie Skłodowska Curie actions**
  - Opportunities for training and career development
- **Research infrastructures** (including e-infrastructure)
  - Ensuring access to world-class facilities

Industrial Technologies

- **Leadership in enabling and industrial technologies**
  - ICT, nanotechnologies, materials, biotechnology, manufacturing, space
- **Access to risk finance**
  - Leveraging private finance and venture capital for research and innovation
- **Innovation in SMEs**
  - Fostering all forms of innovation in all types of SMEs

Societal Challenges

- **Health, demographic change and wellbeing**
- **Food security, sustainable agriculture, marine and maritime research & the bioeconomy**
- **Secure, clean and efficient energy**
- **Smart, green and integrated transport**
- **Climate action, resource efficiency and raw materials**
- **Inclusive, innovative and reflective societies**
- **Security society**

European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

EIT KIC

FOOD 4 FU TU RE

BOTTOM UP RESEARCH

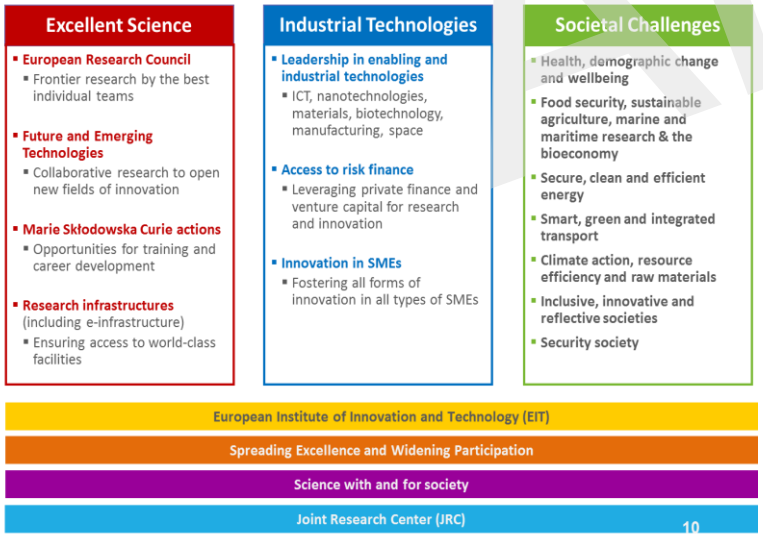
ERC – frontiera
MSCA - mobilità
FET – high risk

SME instrument

CONTRIBUTI
LEIT – Biotechnology

SC1 - Health, demographic change and well being
SC3 - Secure, clean and efficient energy
SC 5 - Climate action, resource efficiency and raw materials (waste)

HORIZON 2020



SOCIETAL CHALLENGE 2
Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the bioeconomy

PPP

BRIDGE

	Compromise % 27.06.13	Million € (current prices
I. Excellent Science, of which:	31,73%	24.441
1. ERC	17,00%	13.095
2. FET	3,50%	2.696
3. MS Curie Actions	8,00%	6.162
4. Research Infrastructures	3,23%	2.488
II. Industrial Leadership, of which:	22,09%	17.016
Leadership in Enabling and Industrial Technologies	17,60%	13.557
Access to Risk Finance	3,69%	2.842
Innovation in SME's	0,80%	616
II.I Societal Challenges, of which:	38,53%	29.679
Health, demographic change and well being	9,70%	7.472
Food security, sustainable agriculture, marine and maritime research & the bio economy	5,00%	**3.851**
Secure, clean and efficient energy	7,70%	5.931
Smart, green and integrated transport	8,23%	6.339
Climate action, resource efficiency and raw materials	4,00%	3.081
Europe in a changing world – Inclusive, innovative and reflective society	1,70%	1.309
Secure societies – Protecting freedom and security of Europe and its citizens	2,20%	1.695
Spreading Excellence and Widening Participation	1,06%	816
Science with and for society	0,60%	462
European Institute of Innovation and Technology - EIT	3,52%	2.711
JRC Non-nuclear	2,47%	1.903
Total EU REGULATION	100,00%	77.028

SC2 - European Bioeconomy Challenges:

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

making the best of our biological resources in a sustainable way

OBIETTIVO: garantire un sufficiente **approvvigionamento di prodotti alimentari sicuri e di qualità** e di altri prodotti biologici, mediante lo **sviluppo di sistemi di produzione**, che siano al contempo produttivi e efficienti nell'utilizzo delle risorse, e la **promozione di servizi di filiera competitivi e a basso contenuto di carbonio**. Questo accelererà la transizione verso una **bioeconomia europea sostenibile**.

SC2 - European Bioeconomy Challenges:

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

FOCUS AREA 2014 -2015:

SC2, WP 2014-2015: 3 main 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
- Horizontal aspects, socio-economic sciences, 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**

DEADLINES

Call 1 – SUSTAINABLE FOOD SECURITY

SFS-6-2014	26/06/2014 at 17.00.00 Brussels time	
SFS-1A-2014 SFS-1B-2014 SFS-2A-2014 SFS-3A-2014 SFS-3B-2014 SFS-4-2014 SFS-7A-2014 SFS-9-2014 SFS-10A-2014 SFS-11A-2014 SFS-12-2014 SFS-14A-2014 SFS-15-2014 SFS-17-2014 SFS-19-2014	First stage 12/03/2014 at 17.00.00 Brussels time	Second stage 26/06/2014 at 17.00.00 Brussels time
SFS-14B-2015	[11/06/2015 at 17.00.00 Brussels time]	
SFS-1C-2015 SFS-2B-2015 SFS-5-2015 SFS-7B-2015 SFS-10B-2015 SFS-11B-2015 SFS-13-2015 SFS-16-2015 SFS-18-2015 SFS-20-2015	First stage [24/02/2015 at 17.00.00 Brussels time]	Second stage [11/06/2015 at 17.00.00 Brussels time]

SFS-8-2014/2015 – Open call cut-off dates – Open from	Phase 1 18/06/2014 24/09/2014 17/12/2014	Phase 2 09/10/2014 17/12/2014	Phase 1 [18/03/2015 17/06/2015 17/09/2015	Phase 2 [18/03/2015 17/06/2015 17/09/2015

DEADLINES

CALL 2: BLUE GROWTH

BG-5-2014 BG-11-2014 BG-13-2014 BG-14-2014 BG-15-2014	26/06/2014 at 17.00.00 Brussels time	
BG-3-2014 BG-4-2014 BG-6-2014 BG-8-2014 BG-9-2014 BG-10-2014	First stage 12/03/2014 at 17.00.00 Brussels time	Second stage 26/06/2014 at 17.00.00 Brussels time
BG-16-2015	[11/06/2015 at 17.00.00 Brussels time]	
BG-1-2015 BG-2-2015 BG-7-2015	First stage [24/02/2015 at 17.00.00 Brussels time]	Second stage [11/06/2015 at 17.00.00 Brussels time]

BG-12-2014/2015 – Open call cut-off dates – Open from 01/03/2014 for phase 1 and phase 2[80]	Phase 1 18/06/2014 24/09/2014 17/12/2014	Phase 2 09/10/2014 17/12/2014	Phase 1 [18/03/2015 17/06/2015 17/09/2015 16/12/2015]	Phase 2 [18/03/2015 17/06/2015 17/09/2015 16/12/2015]

DEADLINES

CALL 3: INNOVATIVE, SUSTAINABLE AND INCLUSIVE BIOECONOMY

ISIB-2-2014 ISIB-7-2014 ISIB-8A-2014 ISIB-8B-2014 ISIB-9-2014 ISIB-10-2014 ISIB-11-2014 ISIB-12A-2014	26/06/2014 at 17.00.00 Brussels time	
ISIB-1-2014 ISIB-4A-2014 ISIB-5-2014	First stage 12/03/2014 at 17.00.00 Brussels time	Second stage 26/06/2014 at 17.00.00 Brussels time
ISIB-2-2015 ISIB-12B-2015 ISIB-12C-2015 ISIB-12D-2015 ISIB-12E-2015 ISIB-12F-2015	[11/06/2015 at 17.00.00 Brussels time]	
ISIB-3-2015 ISIB-4B-2015 ISIB-6-2015	First stage [24/02/2015 at 17.00.00 Brussels time]	Second stage [11/06/2015 at 17.00.00 Brussels time]

THE SFS CALL IN THE CONTEXT OF HORIZON2020

General features

- (Most) topics are framed in a very general way have a large scope. They offer significant opportunities for proposing innovative ideas
- Integration of more basic and applied research with a clear remit to "translate" outputs into practice (farming sector, business, policy)
- Objectives of topics require participation of several disciplines and sectors
- Horizontal issues such as innovation, sustainability, climate, gender are intrinsic to projects and need to be given due consideration

Specific features

- Several topics ask for synergies with EIP: E.g. specific request for so- called "multi-actor approach" or for linking outputs to EIP tools

MULTI - ACTOR APPROACH

- aims at more **demand-driven innovation** through the genuine involvement of various actors (end-users such as farmers/farmers' groups, fishers/fisher's groups, advisors, enterprises, etc.) all along the project:
- is more than a strong dissemination requirement or what a broad stakeholders' board can deliver: it should be illustrated with sufficient quantity and quality of **knowledge exchange activities and a clear role for the different actors in the workplan.**
- **cross-fertilisation** of ideas between actors, the co-creation and the generation of co-ownership for eventual results.
- A multi-actor project needs to take **into account how the project proposal's objectives and planning are targeted to needs / problems and opportunities of end-users**, and the complementarity with existing research.

International collaboration

- Food security requires a global approach
- Problems targeted in call topics may not be specific to Europe and require that the best expertise – globally - is gathered to provide solutions
- Agricultural research is highlighted in existing commitments for international research collaboration
- General encouragement to international collaboration in several topics (e.g. SFS 5,7B,14A,15,20)
- Targeted international collaboration is proposed with partners in Africa (SFS 6,18), China (SFS 1A,1B,3B,4,13) and others in Asia, Australia and North America (SFS 10B,16,18)

How does SFS fit into H2020? (2)

European Commission

SC2, WP 2014-2015: 3 main 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
- Horizontal aspects, socio-economic sciences, 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**

How does SFS fit into H2020? (3)

European Commission

Call
Sustainable Food Security

Sustainable Food Production Systems:
12 topics° 2014 and 7 topics 2015
(16 R&I actions + 1 CSA + 1 SME)*

Safe Food and Healthy Diets and Sustainable Consumption:
4 topics 2014 and 3 topics 2015
(5 R&I actions +1 Innovation action + 1 CSA)

Global Drivers of Food Security:
2 topics 2014 and 2 topics 2015
(3 R&I actions)

° For this presentation topic = SFS-X or scope Y for multiscope SFS-Z SFS-X

* Different totals, as some topics are open both in 2014 and 2015

Research and Innovation

Call: Sustainable Food Security (SFS)

Sustainable Food Production Systems

11 (sub)topics in 2014: 102m€
8 (sub)topics in 2015: 79,5m€

Safe Food, Healthy Diets, Sustainable Consumption

4 (sub)topics in 2014: 26m€
3 (sub)topics in 2015: 9,5m€

Global Drivers of Food Security

2 (sub)topics in 2014: 10m€
2 (sub)topics in 2015: 11,5m€

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

Relazione con altri WP-H2020

SC1 - Health, demographic change and well being

- PHC 7 – 2014: Improving the control of infectious epidemics and foodborne outbreaks through rapid identification of pathogens

SC5 - Climate action, resource efficiency and raw materials

- WASTE-2-2014: A systems approach for the reduction, recycling and reuse of food waste
- WASTE-4-2014/2015: Towards near-zero waste at European and global level
- WASTE-7-2015: Ensuring sustainable use of agricultural waste, co-products and by-products

+ NMPB - Industrial leadership

+ SC3 - Secure, clean and efficient energy

Three calls

Sustainable Food Security

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

Blue Growth

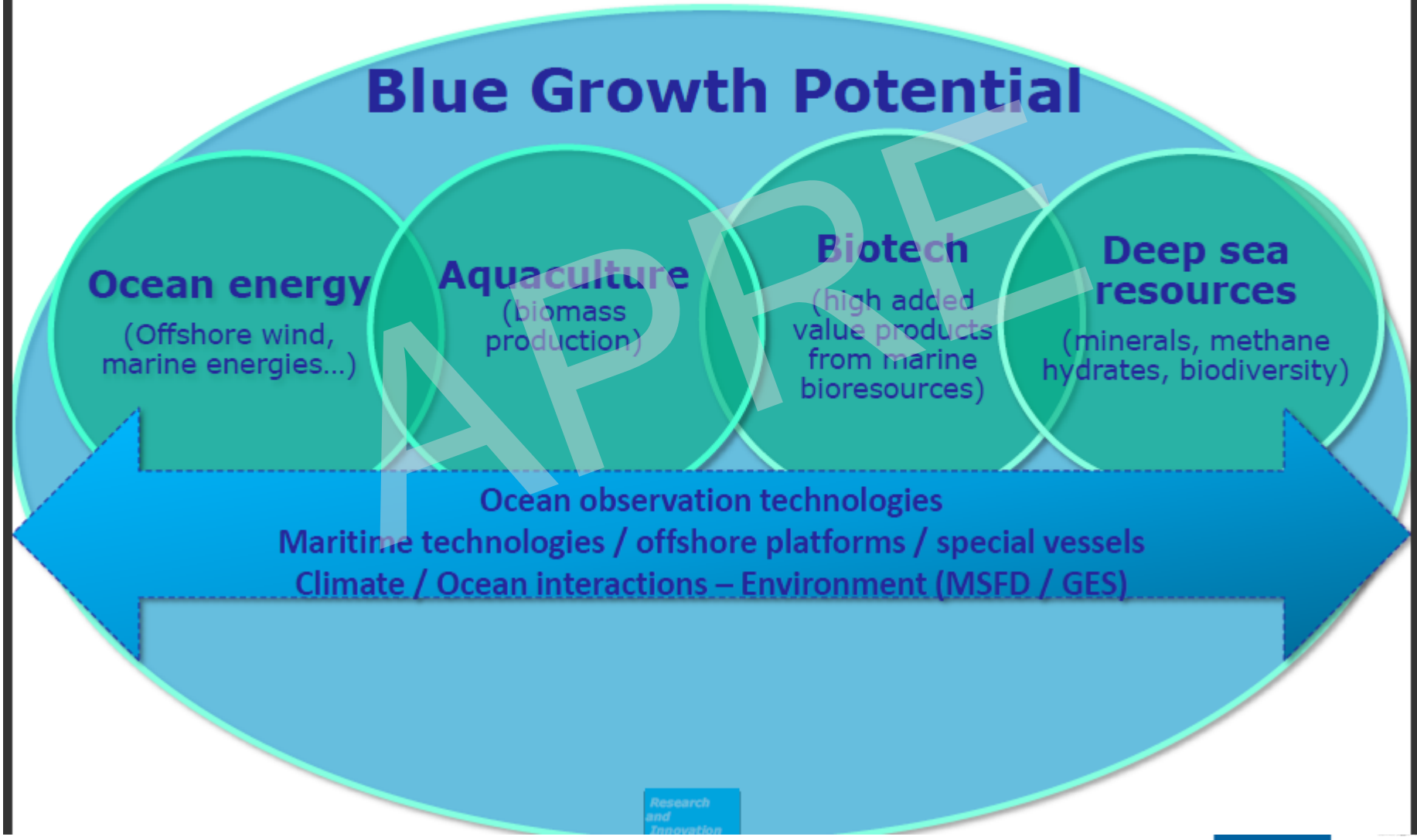
- Sustainably exploiting the diversity of marine life
- New offshore challenges
- Ocean observation technologies/systems
- Socio-economic dimension - engagement with society

Innovative, Sustainable and Inclusive Bioeconomy

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

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


Blue Growth Potential
Ocean energy
(Offshore wind, marine energies…)
Aquaculture
(biomass production)
Biotech
(high added value products from marine bioresources)
Deep sea resources
(minerals, methane hydrates, biodiversity)
Ocean observation technologies
Maritime technologies / offshore platforms / special vessels
Climate / Ocean interactions – Environment (MSFD / GES)

Blue Growth Call 2014-2015

- First Blue Growth Call just launched

  145M€ for 2014-2015

- 10 topics in 2014 and 6 topics in 2015

- Involvment of SC2 (Sustainable Food Security), SC5 (Climate Action), SC4 (Transport) and SC3 (Energy)

- Strategic approach to international Cooperation

European Commission

AREA 1: Sustainably exploiting the diversity of marine life (56 M€)

BG 3 – 2014: Novel marine biomolecules
(Research & Innovation action – 20 M€)

BG 4 – 2014: Potential of marine-derived enzymes
(Innovation Action – 6 M€)

BG 1 – 2015: Atlantic marine ecosystems
(Research & Innovation action – 20 M€)

BG 2 – 2015: Effects of climate change on fisheries and aquaculture (Research & Innovation action – 10 M€)

Research and Innovation

European Commission

AREA 2:
The new offshore challenge (26 M€)

BG 5 – 2014: Innovative offshore economy
(Coordination and Support Action - 2 M€)

BG 6 – 2014: Sub-sea technologies
(Research and Innovation action - 16 M€)

BG 7 – 2015 : Response capacities to oil spills and marine pollutions
(Research and Innovation action- 8M€)

Research and Innovation

European Commission

AREA 3: Ocean observation systems and technologies (30 M€)

BG 8 – 2014 Atlantic Ocean Observations
(Research and Innovation action- 20M€)

BG 9 – 2014: Acoustic and Imaging Technologies
(Research and Innovation action- 10M€)

Research and Innovation

Examples of Maritime research in other parts of Horizon 2020*

SC3: Secure, clean and efficient energy

⇨ *Competitive Low-Carbon Energy*

- LCE-01-2014 New knowledge and technologies
- LCE-02-2014/2015 Developing the next generation technologies of renewable electricity and heating/cooling
  -> items "Wind energy" and "Ocean energy"
- LCE-03-2014/2015 Demonstration of renewable electricity and heating/cooling technologies
  -> items "Wind energy" and "Ocean energy"
- LCE-04-2014/2015 Market uptake of existing and emerging renewable electricity, heating and cooling technologies

*this list is not exhaustive

Examples of Maritime research in other parts of Horizon 2020*

SC4: Smart, green and integrated transport

⇨ *Mobility for Growth* ⇨ *Waterborne transport*

- MG-4.1-2014 Towards the energy efficient and very-low emission vessel *(no limitation to transport vessels)*
- MG-4.2-2014 Safer and more efficient waterborne operations through new technologies and smarter traffic management *(safety part with focus on the Arctic, traffic management part not exclusive to transport services)*
- MG-4.3-2015 System modelling and life-cycle cost and performance optimisation for waterborne assets *(structures explicitly included)*

*this list is not exhaustive

Examples of Maritime research in other parts of Horizon 2020*

SC5: Climate Action, Environment, Resource Efficiency and Raw Materials

⇨ *Growing a low carbon, resource efficient economy with a sustainable supply of raw materials*

- SC5-11a-2014 Mining of small and complex deposits and alternative mining
- SC5-11c-2015 Deep mining on continent and in sea-bed
- SC5-15-2015 Strengthening the European Research Area in the domain of Earth Observation
- SC5-18a-2014 Coordinating European Observation Networks to reinforce the knowledge base for climate, natural resources and raw materials

*this list is not exhaustive

European Commission

Examples of Maritime research in other parts of Horizon 2020*

LEIT[1]: ii. Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

⇨ *Biotechnology-based industrial processes driving competitiveness and sustainability*

- BIOTEC-5-2014-2015 SME-boosting biotechnology-based industrial processes driving competitiveness and sustainability

⇨ *Innovative and competitive platform technologies*

- BIOTEC-6–2015 Metagenomics as innovation driver

[1] *Leadership in Enabling and Industrial Technologies*

*this list is not exhaustive

SC2, WP 2014-2015: 3+1 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
- Horizontal aspects, socio-economic sciences, 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**

INNOVATIVE, SUSTAINABLE AND INCLUSIVE BIOECONOMY CALL

ISIB Call

Sustainable Agriculture and Forestry: 4 topics
(3 R&I actions + 1 CSA)

Sustainable and competitive bio-based industries: 3 topics
(2 R&I actions + 1 CSA)

Cross-cutting actions covering all activities: 5 topics
(4 CSAs + 1 ERA-NET Cofund)

(+ 1 Fast track to innovation – Pilot for 2015)

Sustainable agriculture and forestry

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

European Commission

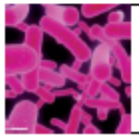
Biotechnologies Call

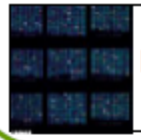
- **Background**
  - Biotechnologies and EU industrial leadership
  - FP7 KBBE Biotechnology
- **Main features WP2014-2015**
- **Three challenges**
- **Budget: € 51.7 million in 2014 & € 32 million in 2015**

European Commission

FP7 KBBE Biotech


Industrial biotechnology


Environmental biotechnology


Emerging trends in biotechnology


Novel sources of biomass and bioproducts


Marine and fresh-water biotechnology


Biorefinery

Research and Innovation

H2020 LEIT Biotech

- Biotechnology-based industrial processes
- Boosting cutting-edge biotechnologies as future innovation drivers

- Innovative and competitive platform technologies

NEW

Societal challenge 2

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

Main features of Biotechnologies Call in WP 2014-15

- From RTD to close-to-market, covering the whole innovation chain
- Balance between TRL [3-5] and [5-7] . Larger share of high TRL expected in a later stage of Horizon 2020
- Good complementarity with Societal challenge 2
- Topics broad enough to allow one or several projects to be financed
- All topics attractive to SME
- SSH: Responsible research and innovation. Embedded in topics raising potential ethical/safety issues such as synthetic biology. Gender to be consider if relevant.
- International cooperation: standardisation, global initiatives, etc.

Main challenges/ Orientations 2014-2015

Cutting-edge biotechnologies as future innovation drivers

- Developing generic technological enablers across economic sectors such as health, agriculture and industry

Biotechnology-based industrial processes driving competitiveness and sustainability

- Bridging the gap from lab to market
- Creating a path for participants in projects, in particular SMEs and large industries, to continue investing in an array of possibilities for the commercialisation of the knowledge generated

Innovative and competitive platform technologies

- Developing generic technological enablers across economic sectors such as health, agriculture and industry

Call 2015

BIOTEC 2: New bioinformatics approaches in service of biotechnology

Research & Innovation Actions, TRL 3-5

BIOTEC 6: Metagenomics as innovation driver

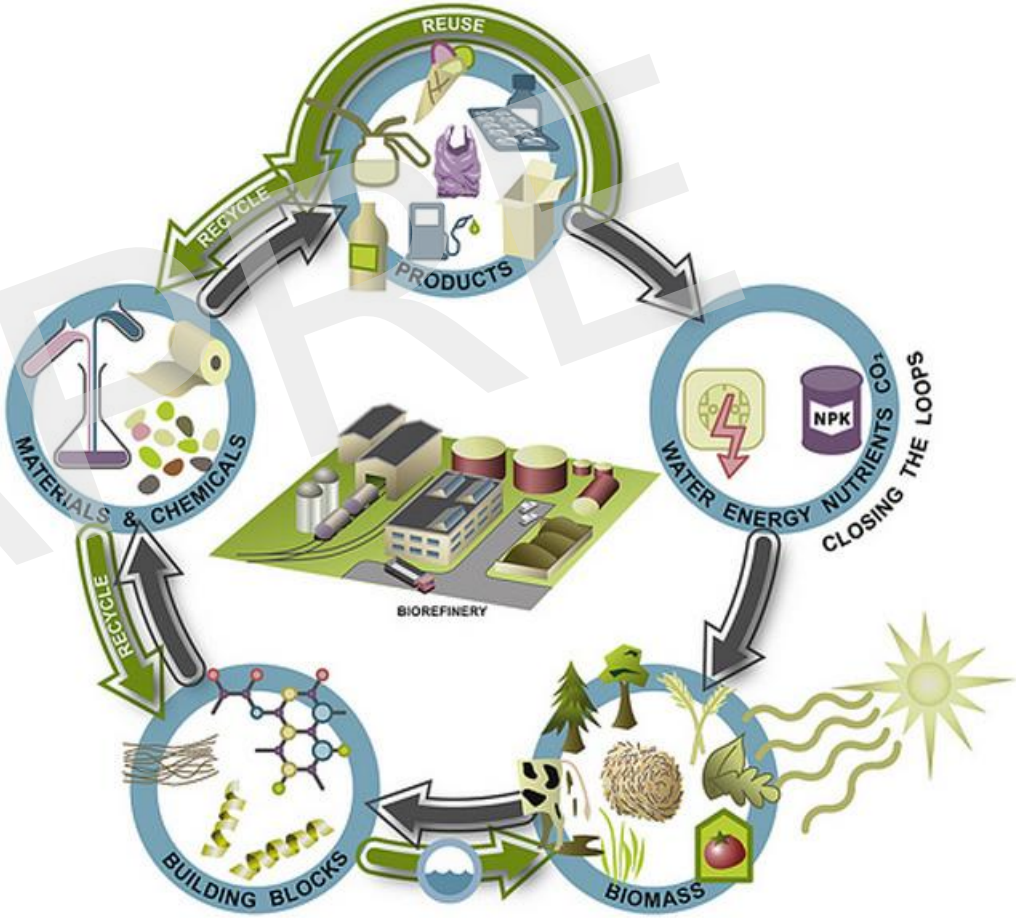
Research & Innovation Actions, TRL 3-5

Deadlines: ***First stage 24/02/2015***
Second stage 11/06/2015

Budget: € 29.6 million

bridge 2020

APRE
AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA



enterprise europe network

BRIDGE 2020: *Biobased and Renewable Industries for Development and Growth in Europe*

Iniziativa di partenariato pubblico - privato proposta dalla Commissione Europea nel contesto di H2020, specchio delle *FP7 Joint Technology Initiatives*. Sostiene la ricerca industriale e l'innovazione attraverso una stretta collaborazione lungo al catena del valore di attori pubblici e privati.

BRIDGE è composta da un consorzio di **42** industrie europee (BIC) e collabora attivamente con associazioni europee, istituti di ricerca e università.

Investimenti 2014-20 20: € 1 Mlr (da EU – H2020) + € 2.8 Mlr (da industria e altri)

PUBLIC PRIVATE PARTNERSHIP ON BIO - BASED INDUSTRIES

"to develop new and competitive bio-based value chains that replace the need for fossil fuels and have a strong impact on rural development"

**COM(2013) 494/2 Public-private partnerships in Horizon 2020: a powerful tool to deliver on innovation and growth in Europe*

BRIDGE 2020: Obiettivi

1. **Creare nuove catene di valore basate su biomassa sostenibile e sistemi di approvvigionamento più produttivi**, e un migliore utilizzo delle materie prime, sviluppando allo stesso tempo un sistema di impiego e valorizzazione dei rifiuti e delle biomasse lignocellulosiche;

2. **Migliorare e sviluppare le catene di valore esistenti**, attraverso l'utilizzo ottimizzato delle materie prime e delle flussi secondari industriali, e offrire prodotti innovativi e con un maggiore valore aggiunto per il mercato, rafforzando così la competitività delle industrie collegate alla silvicoltura e all'agricoltura europea;

3. **Sviluppare nuove ed esistenti tecnologie attraverso la ricerca e l'innovazione, e tramite l'aggiornamento e la costruzione bioraffinerie di dimostrazione**, nelle quali processare le biomasse per la produzione di una nuova gamma di prodotti provenienti da fonti rinnovabili innovative.

- sviluppare sistemi che garantiscano l'approvvigionamento sostenibile sia per le applicazioni alimentari che per quelle industriali
- ottimizzare l'utilizzo delle materie prime esistenti (biomasse di origine agricola e silvicola) e lo sviluppo di nuove catene di approvvigionamento delle materie prime (residui silvicoli, residui agricoli lignocellulosici o altre colture)
- rafforzare le economie rurali e introdurre sul mercato bio-prodotti, contribuendo in tal modo al raggiungimento di un'economia basata su di essi e agli obiettivi 2020.

BRIDGE 2020: Attori

INDUSTRIE

Italia : Chemtex Italia (Gruppo M&G), Novamont

UNIVERSITA' E CENTRI DI RICERCA:

Italia: ENEA, Innovhub SSI, Università di Bologna, Università di Napoli "Federico II".

ASSOCIAZIONI EUROPEE ED ETP

BRIDGE 2020: Piano Strategico

CATENE DI VALORE:

1. Dalla materia prima lignocellulosica ai biocarburanti avanzati, prodotti chimici provenienti da fonti rinnovabili e biomateriali
2. Una nuova generazione di **catene del valore basate sulle foreste**: sfruttare il potenziale delle biomasse silvicole per la realizzazione di nuovi sistemi e prodotti per il mercato biobased
3. Una nuova generazione di **catene del valore agro-based**: raggiungere la massima sostenibilità e valore per il miglioramento della produzione agricola e l'introduzione di nuovi prodotti agricoli con valore aggiunto sul mercato
4. Nuove catene del valore per i (bio)rifiuti per trasformarli da problema a opportunità economiche
5. Bioraffinerie integrate per energia, cellulosa e prodotti chimici

PUBBLICAZIONI

Cover	Title and Link to electronic version	Pages	Summary
	Bioeconomy Leaflet: A Bioeconomy Strategy for Europe Catalogue Num.: KI-02-13-205-EN-C e-Library	4 p.	This leaflet gives a brief but complete overview of the Europe's Bioeconomy Strategy launched in 2012.
	Innovating for sustainable growth: A Bioeconomy for Europe ISBN 978-92-79-25376-8 e-Library	64 pp	Communication from the EC to the EP, the Council, the Economic and Social Committee and the Committee of the Regions "Innovating for Sustainable Growth: A Bioeconomy for Europe" and the "Commission Staff Working Document".
	Investing in European Success developing a Bioeconomy using resources from land and sea ISBN 978-92-79-23342-5 e-Library	42 p.	This booklet presents a selection of projects that show Europe's investment in Research and Innovation as the cornerstone of the Bioeconomy strategy.
	Bioeconomy Poster Two sizes: - A0 (84,1x118,9cm) - A1 (59,4x84,1cm) EU Bookshop		Poster

PUBBLICAZIONI

Interim Catalogue of Projects (FP7 - COOPERATION - THEME 2) Catalogue Num.: KI-32-13-034-EN-N	448 pp.	This interim catalogue presents 411 projects selected for funding under FP7 Theme 2 “Food, Agriculture and Fisheries, and Biotechnologies” during 5 years (2007-2012).
FP7 projects with the Group of African, Caribbean and Pacific States (ACP) in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-01-13-121-EN-C	64 pp	The African, Caribbean and Pacific catalogue presents 51 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).
FP7 projects with Asia Research and Innovation in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-01-13-122-EN-C	80 pp.	The Asian countries catalogue presents 65 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).
FP7 projects with Brazil in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-01-13-123-EN-N	36 pp.	The Brazil catalogue presents 24 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).
FP7 projects with China in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-02-13-059-EN-N	56 pp.	The China catalogue presents 41 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).
FP7 projects with Eastern Europe and Central Asia (EECA) in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-02-13-062-EN-N	40 pp.	The Eastern Europe and central Asia countries catalogue presents 28 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).
FP7 projects with India in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-02-13-060-EN-N	28 pp.	The India catalogue presents 18 projects selected for funding under FP7 Theme during 5 years (2007-2012).
FP7 projects with Mediterranean Partners Countries (MPC) in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-01-13-120-EN-C	48 pp.	The Mediterranean countries catalogue presents 33 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).
FP7 projects with Russia in the area of Food, Agriculture and Fisheries, and Biotechnology research Catalogue Num.: KI-02-13-061-EN-N	40 pp.	The Russia catalogue presents 25 projects selected for funding under FP7 Theme 2 during 5 years (2007-2012).

SUPPORT TO POLICIES

interactions between the Directorate for Food, Agriculture and Fisheries and Biotechnology Research and other Directorates General o the European Commission

Interactions with **Directorate-General for Health and Consumers** (DG SANCO) in the fields of

- plant health and plant protection,
- animal health and welfare (including fish and seafood),
- food security and food safety
- sustainability,
- obesity,
- cloning and food from cloned animals.

Interactions with **Directorate-General for Agriculture and Rural Development** (DG AGRI) in the fields of

- organic farming,
- quality products,

SUPPORT TO POLICIES

Interactions with **Environment Directorate-General** (DG ENV) in the fields of

- soil protection,
- water,
- waste management,
- use of plant and microbial genetic resources in agriculture and forestry and fostering functional biodiversity,
- forest protection.

Interactions with **Directorate-General for Maritime Affairs and Fisheries** (DG MARE) in the fields of

- Common Fisheries Policy (FCP)
- aquaculture – fish farming,
- maritime policy including its environment pillar, the Marine Strategy framework directive.

SUPPORT TO POLICIES

Interactions with **Directorate-General Enterprise and Industries** (DG ENTR) in the fields of

- eco-innovation in the food industry, particularly SMEs
- practical industrial application of new technologies or research results and in development of industrially relevant technologies.
- A number of topics in WP2010 are specifically designed to encourage participation by SMEs and industry in research and innovation

GRAZIE PER L'ATTENZIONE!

APRE
Agenzia per la Promozione della Ricerca Europea
via Cavour, 71
00184 - Roma
www.apre.it
Tel. (+39) 06-48939993
Fax. (+39) 06-48902550

Serena Borgna
borgna@apre.it