



Corso di Formazione **HORIZON 2020**

Societal challenge 2 - “Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy”



ISTITUTO ZOOPROFILATTICO SPERIMENTALE
DELL'ABRUZZO E DEL MOLISE "G. CAPORALE«
27 Febbraio 2014

Serena Borgna
National Contact
Point
BIO – NMP - ERC
borgna@apre.it





PROGRAMMA DEL CORSO

9.00 Registrazione dei partecipanti

9.15 Indirizzo di benvenuto

Direttore sanitario IZSAM

Presidente Unioncamere Abruzzo

9.30 Horizon 2020: contesto e architettura

11.15 *Coffee break*

11.30 Strategie e politiche in tema Bioeconomy

11.45 Il work programme 2014-15: “Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy”

12.45 Dibattito

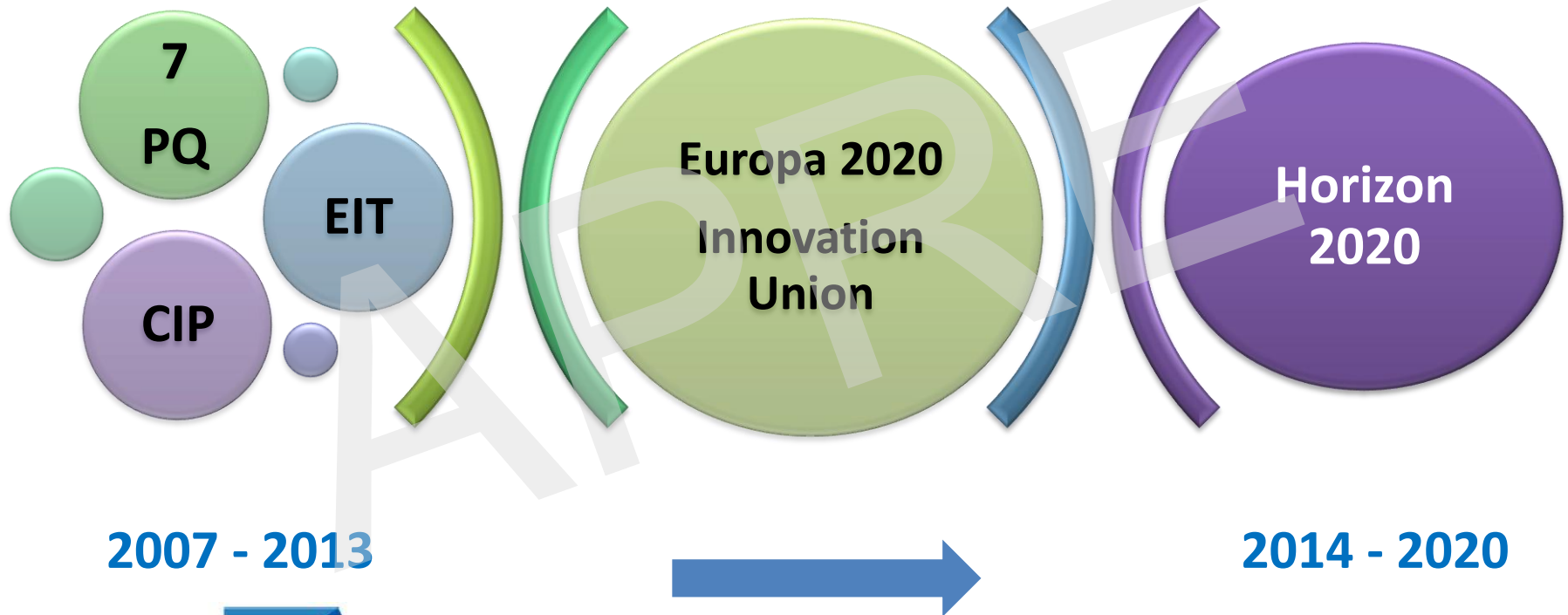
13.00 *Pausa pranzo**

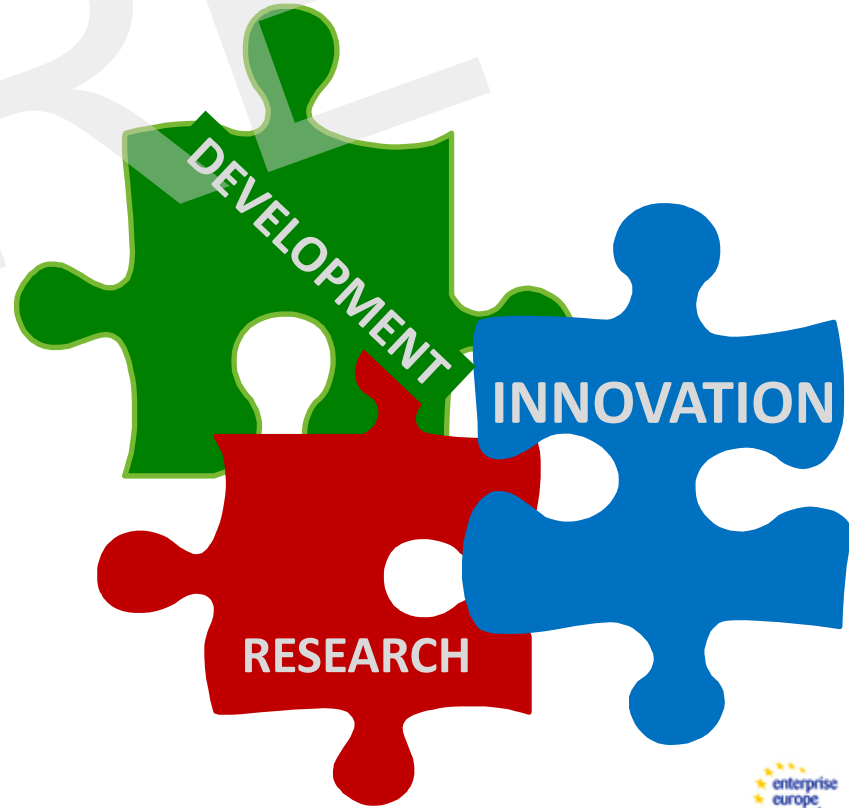
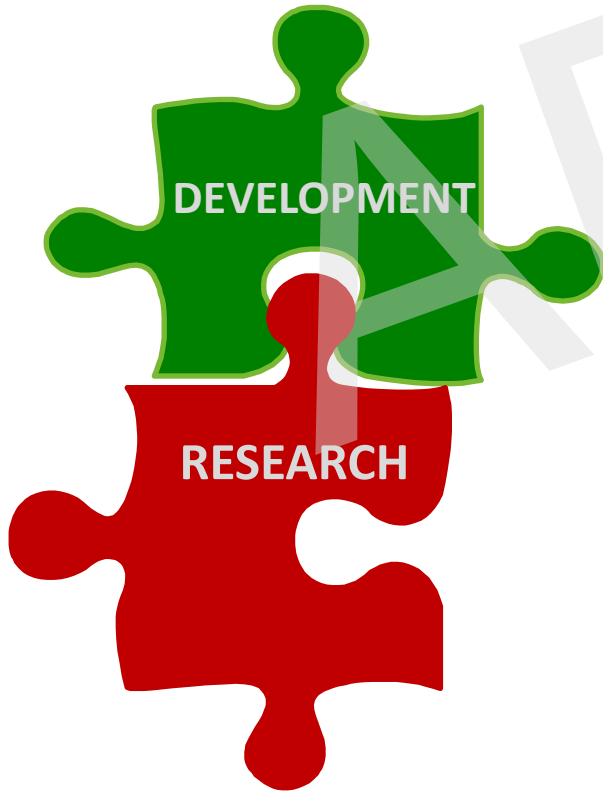
14.00 Ricerca della call, regole di partecipazione, criteri di valutazione

15.30 Cenni sulla progettazione e *Chiusura dei lavori*



VERSO HORIZON 2020





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)



APPRE

1.HORIZON 2020

Contesto





29 % GDP



24 % R&D



7 % Population

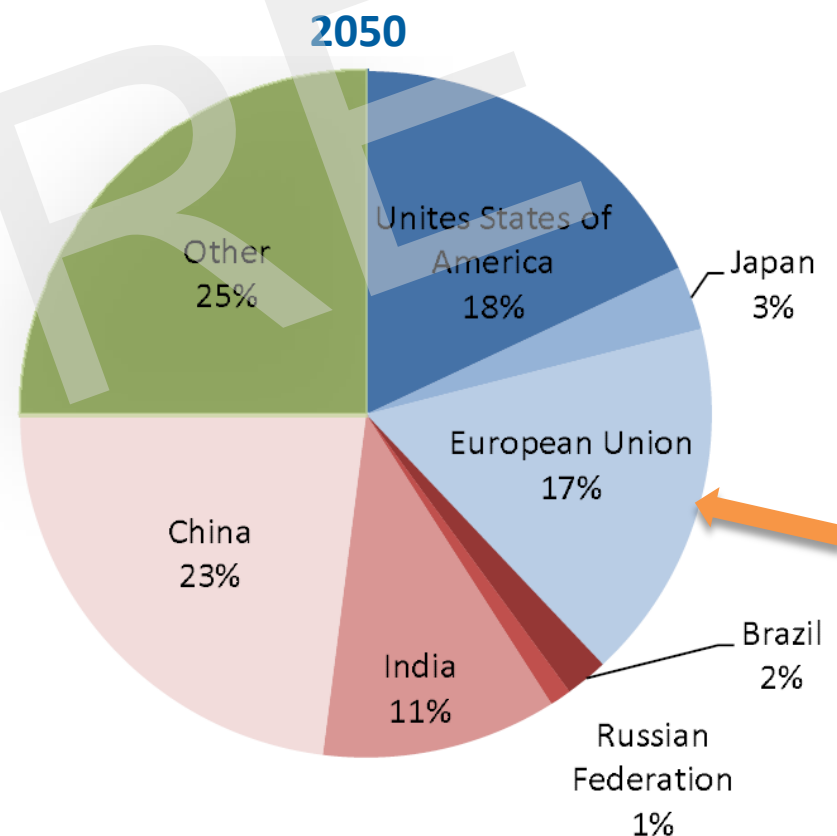
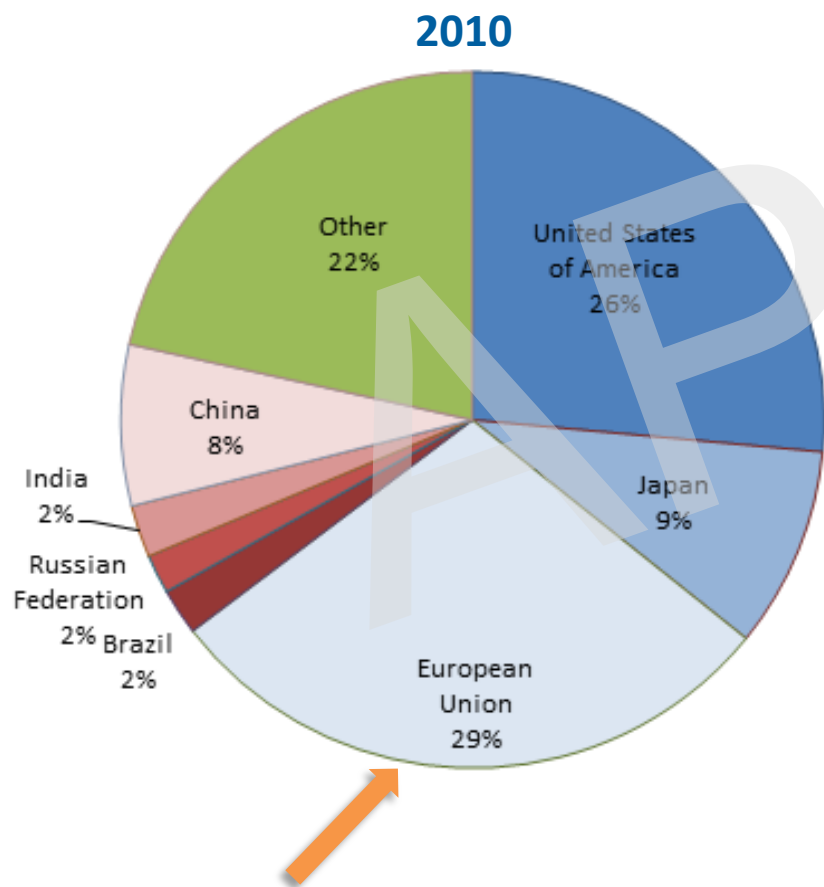


32 % Pub - Pat





Scenari 2010 - 2050

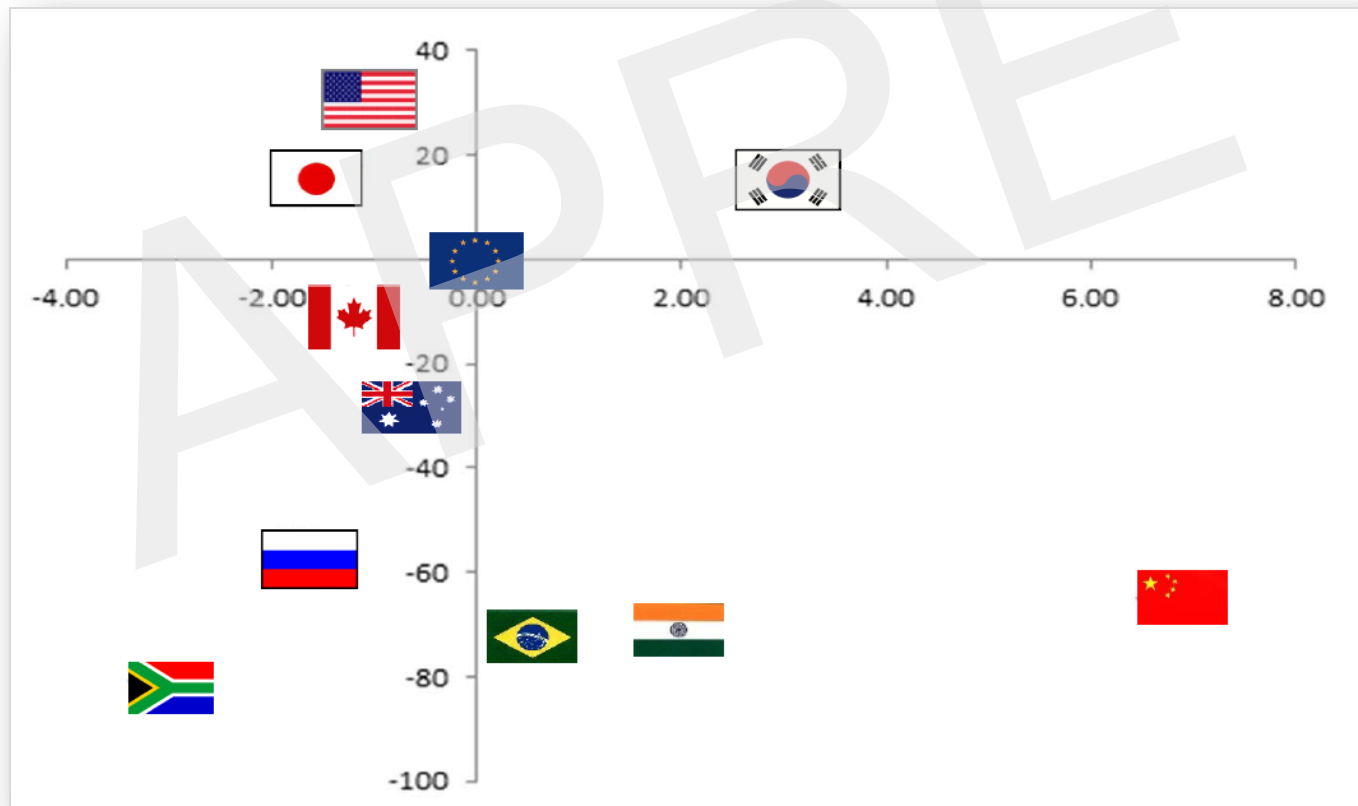


World GDP (constant USD), Source: Global Europe 2050



Innovation performance nel mondo

Innovation performance lead/gap vis-à-vis the EU (as % of EU performance)



Average annual innovation performance growth lead/gap vis-à-vis the EU (in %)



Multipolar world in research and innovation /1

Multipolar world in all sectors and also in science

80% of *researchers* work outside Europe

69% of patent applications are made outside Europe



75% of GERD is executed in other parts of the world
 (Gross Expenditure on Research and Development)

EU's world share in GERD has diminished by **7.6%**
 over the previous 6 years

EU's world share of patent application has declined **14.2%**
 over the previous 6 years



Multipolar world in research and innovation /2

EU-27 is the largest producer of scientific publications in the world (EU 37%, US 31%)

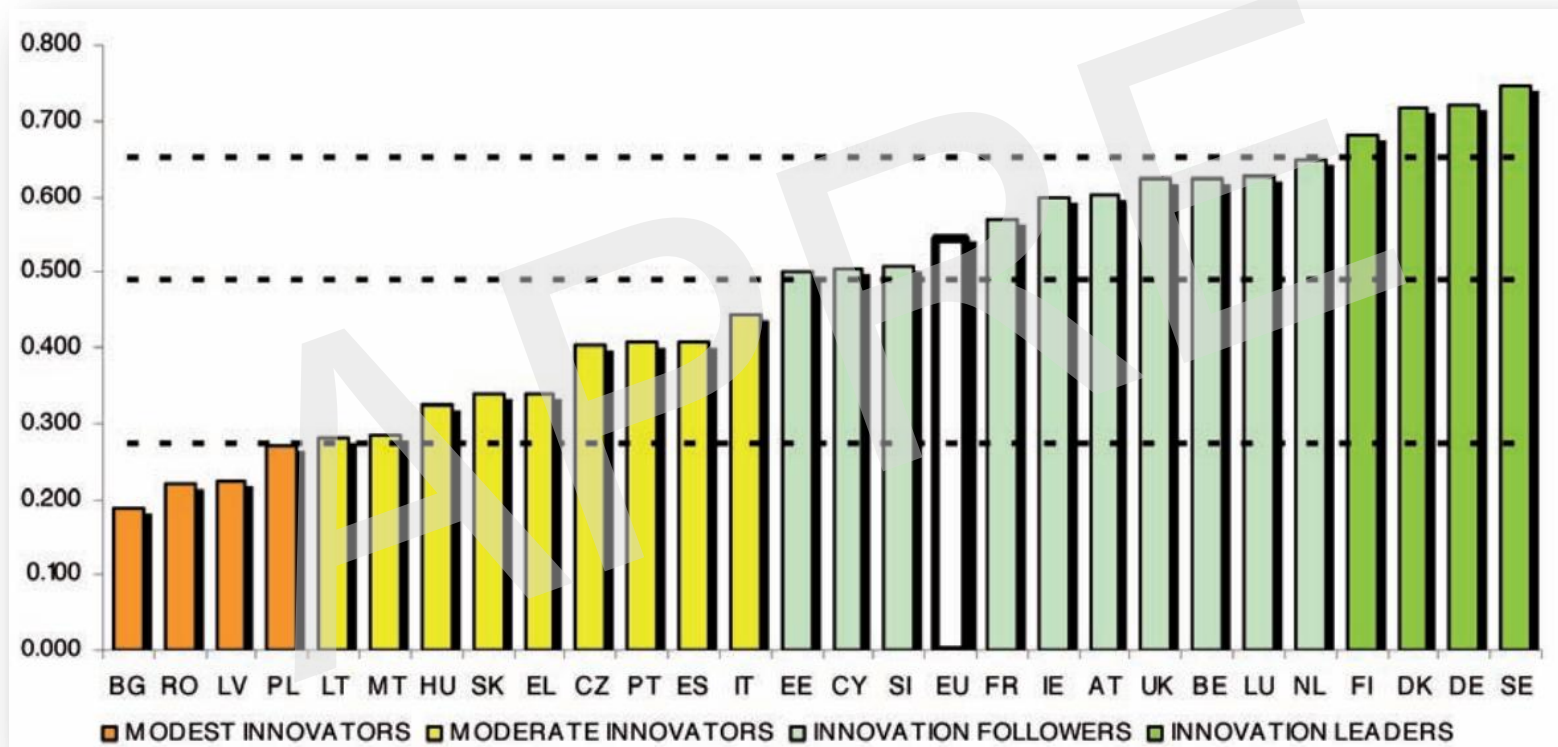
However the EU contributes less than the US to high impact publications (US 1.45%, EU 0.97% - contribution to the 10% most cited publications)

China's share of world scientific publications has more than doubled within six years and is now larger than that of the Japanese





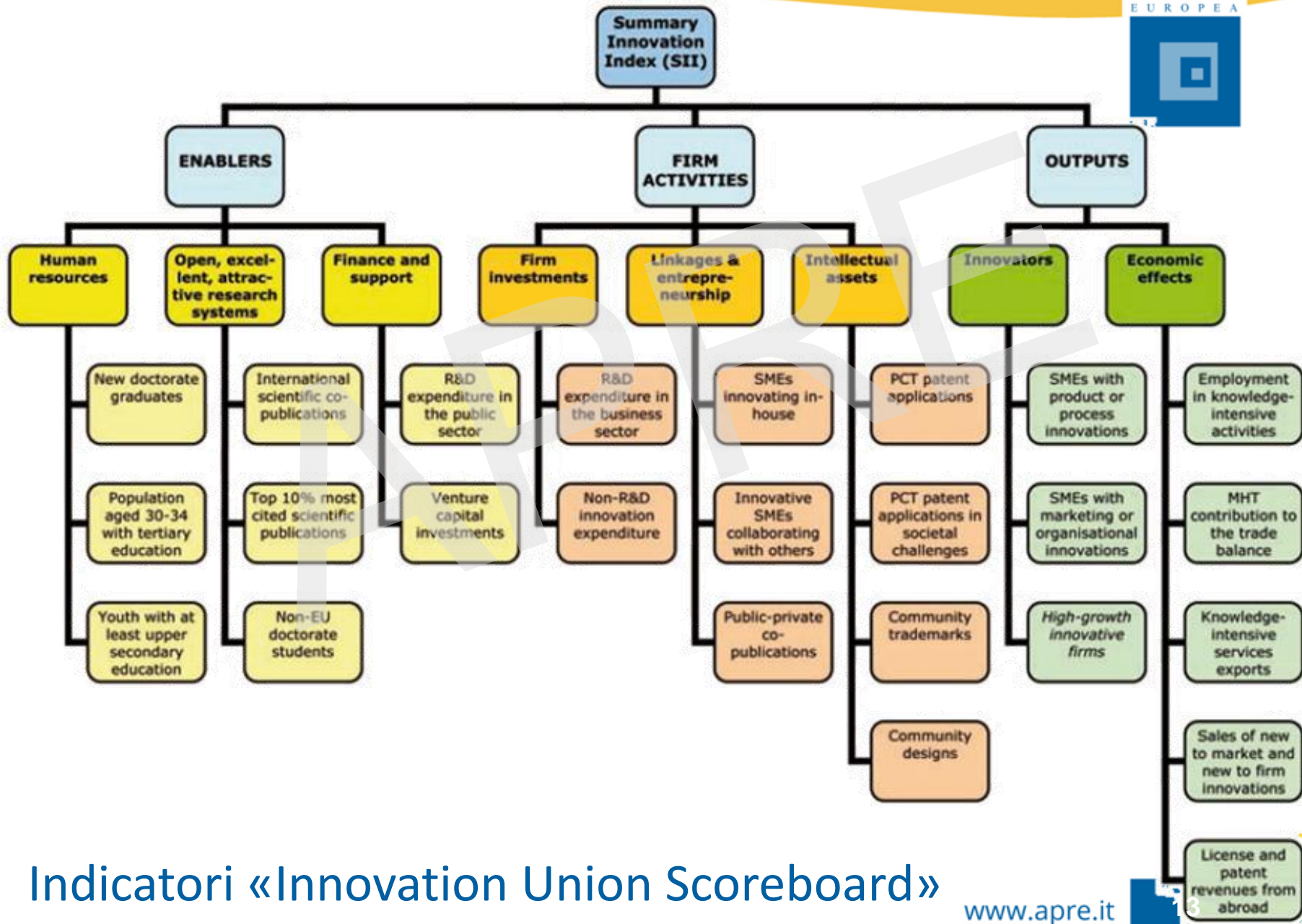
Stati membri UE: innovation performance



Indicatore generale composto da 24 indicatori – valori compresi tra 0 e 1

*Innovation Union Scoreboard 2013

http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/innovation-scoreboard/index_en.htm





Cosa condividono gli innovation leaders?

- ottime performance in spese correlate a Business R&D

Spese




- ottime performance in altri indicatori legati ad attività di business

Business



- punteggi alti in co-pubblicazioni scientifiche sia pubbliche che private per milione di abitanti (= correlazione tra scienza e impresa)

Pubblicazioni



- ottima commercializzazione del loro know-how tecnologico (es. indicatore License and patent revenues from abroad)

Know-how



- sistema nazionale di ricerca e innovazione ben bilanciato (= solo piccole variazioni nelle performance relative alle varie dimensioni dell'innovazione)

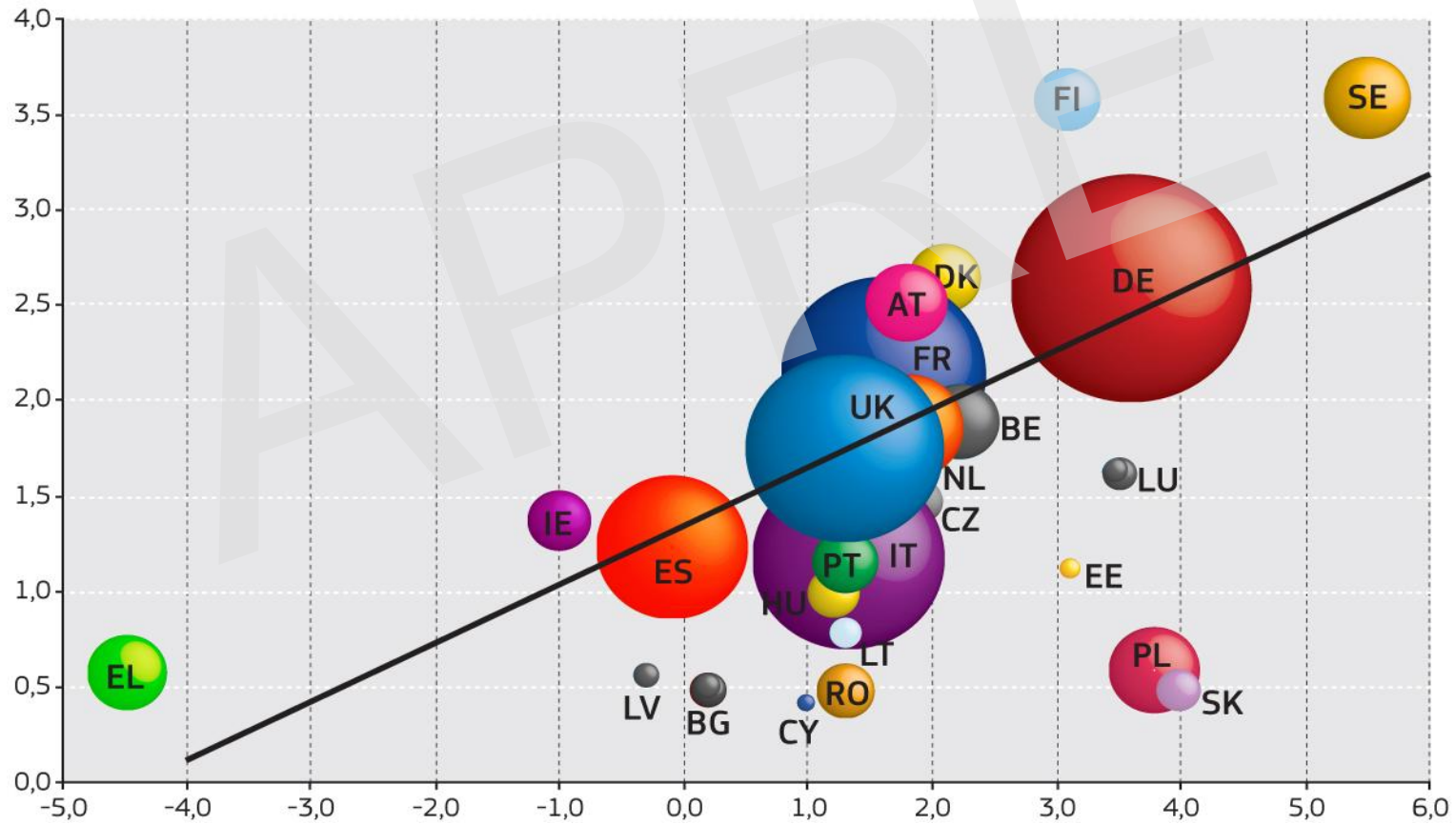
Sistema R&I





Che relazione tra R&D e crescita?

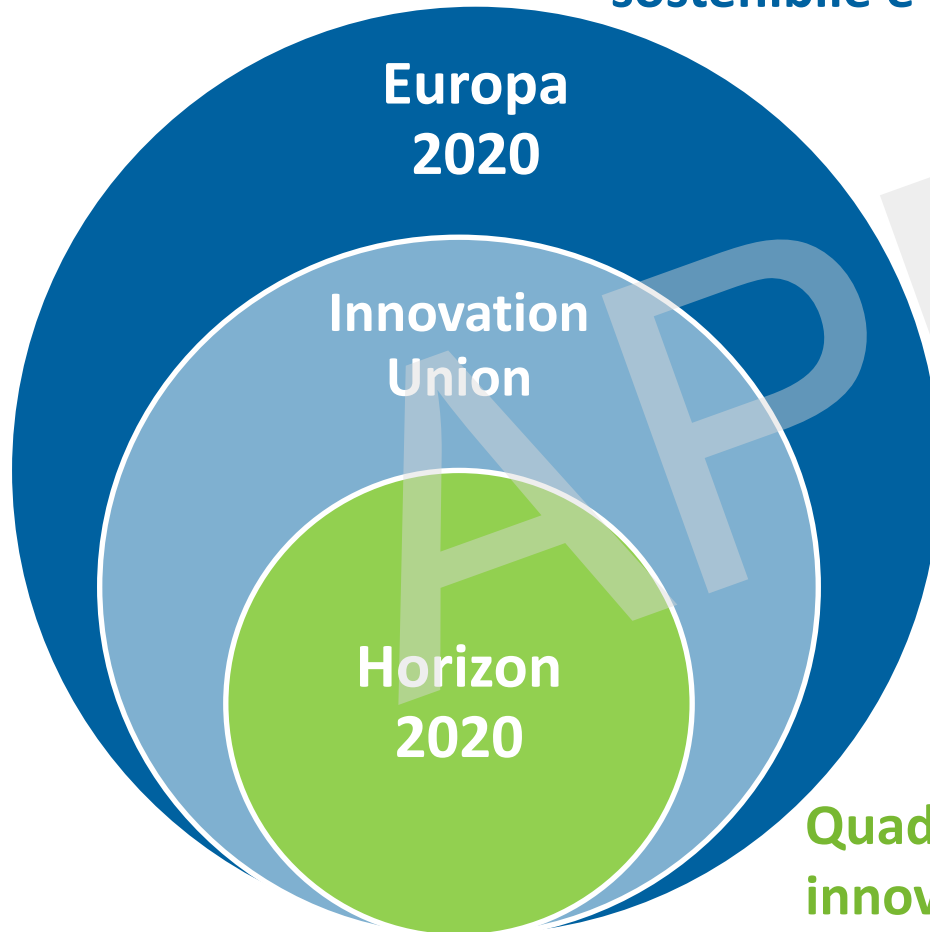
Average R&D Investment, 2004 - 2009



GDP growth, 2010



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)



Europa 2020 - 5 obiettivi

OCCUPAZIONE

75% of the population aged 20-64 should be employed

R & INNOVAZIONE

3% del PIL dei Paesi EU investito in R&D

CLIMA / ENERGIA

A reduction of CO2 emissions by 20%

A share of renewable energies up to 20%

An increase in energy efficiency by 20%

FORMAZIONE

The share of early school leavers should be under 10%

At least 40% of the younger generation should have a degree or diploma

POVERTA'

20 million fewer people should be at risk of poverty



Le 7 “Flagship Initiatives”

Smart Growth	Sustainable Growth	Inclusive Growth
<p>Innovation « <u>Innovation Union</u> »</p>	<p>Climate, energy and mobility « Resource efficient Europe »</p>	<p>Employment and skills « An agenda for new skills and jobs »</p>
<p>Education « Youth on the move »</p>	<p>Competitiveness « An industrial policy for the globalisation era »</p>	<p>Fighting poverty « European platform against poverty »</p>
<p>Digital society « A digital agenda for Europe »</p>		



La Innovation Union/1

- | | | | | | | |
|---|--|---|--|---|--|--|
| 1. Training researchers | 2. University ranking system | 3. Developing new curricula | 4. ERA Framework | 5. European Research infrastructures | 6. Programmes focusing on EU2020 | 7. Involvement of SMEs in R&I |
| 8. Forum on Forward Looking Activities | 9. EIT to expand its activities | 10. New financial instruments for private finance | 11. Free Venture Capital funds | 12. Cross-border matching of innovative firms | 13. Review of State aid R&D&I | 14. EU Patent |
| 15. Screening of key regulatory frameworks | 16. Modernise standard-setting | 17. Pre-commercial and public procurements | 18. Eco-innovation action plan | 19. European Design Board | 20. Open access | 21. Knowledge transfer |
| 22. European market for patents and licensing | 23. Safeguard of IPRs | 24. Smart Specialisation | 25. Focus on Innovation in the next Structural Funds | 26. European Social innovation pilot | 27. Research programmes on public sector and social innovation | 28. Partners consultation on knowledge economy |
| 29. European Innovation Partnerships | 30. Policies for researchers to reside in Europe | 31. Scientific cooperation with third countries | 32. International agreements on research infrastructures | 33. MS to carry out self assessments | 34. New indicator for fast-growing companies and monitoring | |



La Innovation Union/2

RAFFORZARE LA BASE DI CONOSCENZE E RIDURNE LA FRAMMENTAZIONE

- Promuovere l'eccellenza nel campo dell'istruzione e dello sviluppo delle competenze
- Costruire lo Spazio europeo della ricerca
- Concentrare gli strumenti di finanziamento dell'Unione sugli obiettivi prioritari dell'Unione dell'innovazione
- Promuovere l'Istituto europeo di innovazione e tecnologia (EIT) in quanto modello per la gestione dell'innovazione in Europa



PORTARE LE BUONE IDEE AL MERCATO

- Potenziare l'accesso ai finanziamenti per le imprese innovative
- Realizzare un mercato unico per l'innovazione
- Promuovere l'apertura e trarre vantaggio dal potenziale creativo europeo



La Innovation Union/3

**MASSIMIZZARE LA
 COESIONE SOCIALE E
 TERRITORIALE**

- Diffondere uniformemente i vantaggi dell'innovazione in tutta l'Unione
- Aumentare i vantaggi di natura sociale



**UNIRE LE FORZE PER
 REALIZZARE
 PROGRESSI DECISIVI:
 EIP**



**POTENZIARE GLI
 EFFETTI ESTERNI
 DELLE NOSTRE
 POLITICHE**



- Riformare i sistemi che si occupano di ricerca ed innovazione
- Misurare i progressi compiuti



Innovation Union: dove siamo?

Proposte presentate

(include 6 legislative)

- ERA communication (#4)
- **Horizon 2020 (#6)**
- EIT Strategic Innovation Agenda (#9)
- Venture capital passport (#11)
- Unitary patent (#14)
- Standards (#16)
- Public procurement (#17)
- Eco-innovation Action Plan (#18)
- Structural Funds (#24/#25)
- Preparazione della proposta su headline indicator (#34)

Lavoro in Partnership

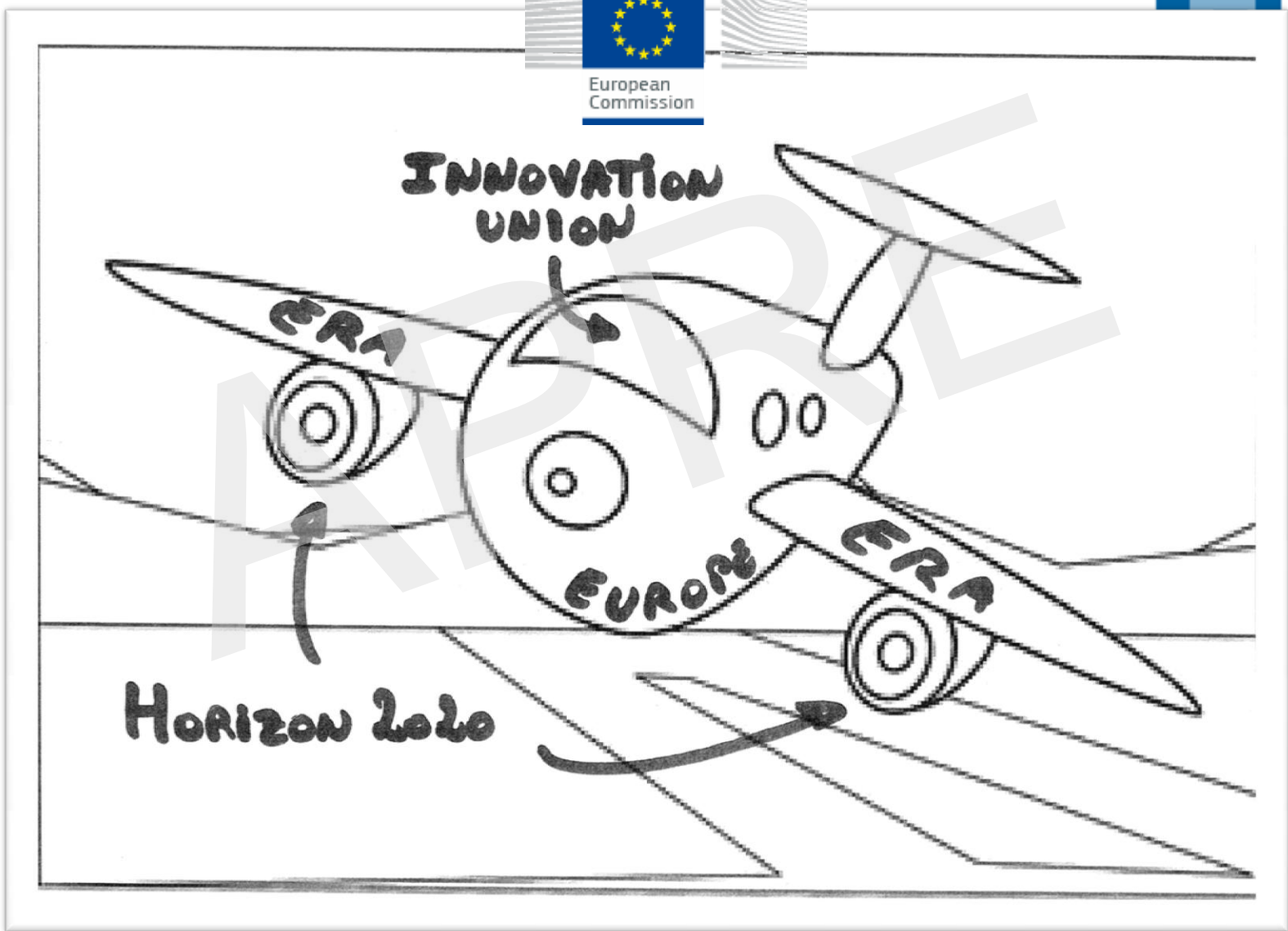
5 nuove piattaforme e forum

- European Forum on Forward Looking Activities (#8)
- European Creative Industries Alliance (#19)
- European Design Leadership Board (#19)
- Smart Specialisation Platform (#24)
- **European Innovation Partnerships (#29)**

Sperimentazione di nuove idee

6 'pilot initiatives' già lanciate

1. Knowledge Alliances (#2)
2. University ranking (#2)
3. Regulatory screening (#15)
4. Support mechanism for procurement of innovative products and services (#17)
5. European Social Innovation pilot (#26)
6. European Public Sector Innovation Scoreboard (#27)





APPRE

European Innovation Partnership



Le European Innovation Partnerships (EIP)

- Affrontare un **societal challenge** → focus tematico
- Innalzare il livello di **competitività** europea
- Colpire la **frammentazione** di programmi e risorse e stabilire priorità
- Ridurre il **time-to-market** delle nuove scoperte R&D

ATTRAVERSO

azioni lungo l'intera Research & Innovation chain

(semplificando e coordinando iniziative e strumenti esistenti, focus su demonstration, regolamentazioni e standard, mobilitando stakeholder...)





Le European Innovation Partnerships (EIP)/2

- Previsti dall'iniziativa «**Innovation Union**», una delle 7 Iniziative faro della nuova Strategia Europa 2020
- L'intento é di mettere alla prova un nuovo approccio per ricerca e innovazione in Europa
- Finalizzati ad una **specifica problematica**, concentrandosi sui benefici per la società
- Intervengono **su tutta la catena della ricerca e dell'innovazione**. Le partnership riuniscono tutti gli operatori rilevanti a livello di Unione, nazionale e regionale
- Servono a razionalizzare, semplificare e coordinare meglio iniziative e strumenti esistenti integrandoli all'occorrenza con nuove attività
- Ad oggi esistono **cinque** EIP



Quale EIP?

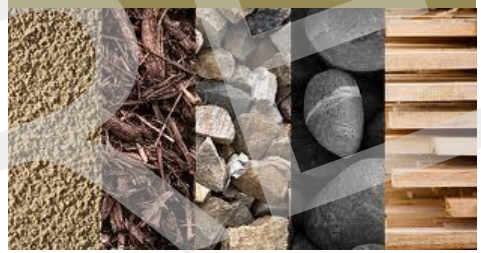
Active &
Healthy
Ageing



Agricultural
Productivity &
Sustainability



Raw Materials



Smart Cities &
Communities

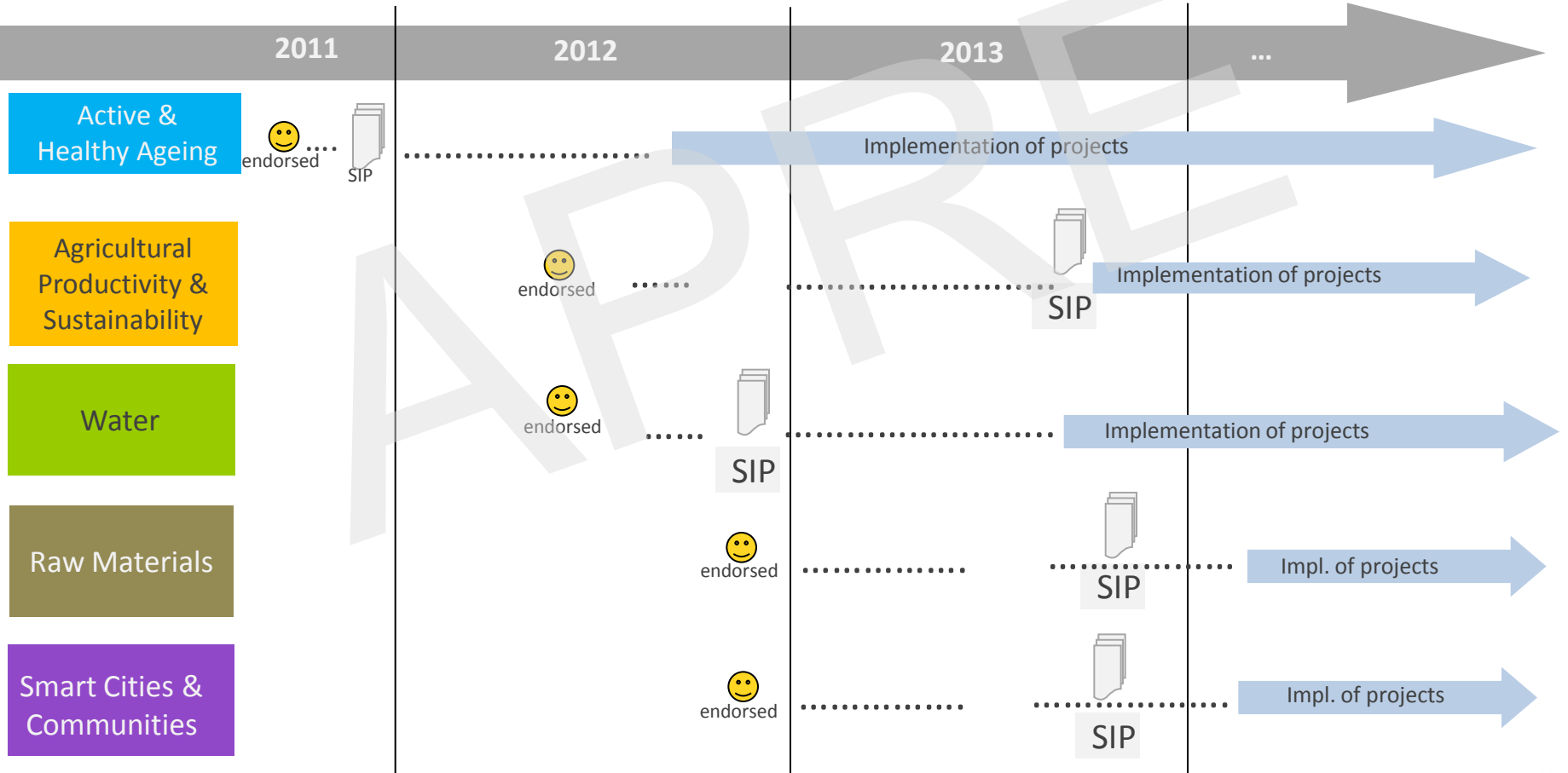


Water





Il piano temporale delle EIP



SIP = Strategic Implementation Plan



La Pilot EIP “Active and Healthy Ageing”

Target entro il 2020:



Aggiungere **2 anni di vita sana** alla media europea



Pillar I

Prevenzione,
 screening e diagnosi
 precoce

Pillar II

Care & cure

Pillar III

Invecchiamento
 attivo e vita
 indipendente

STRATEGIC
IMPLEMENTATION
PLAN



Added Value

- Collaborative innovation
- Building synergies

Improving

health & quality of life of European citizens, incl. older people

Supporting

long-term sustainability & efficiency of Europe's health and social care systems

Fostering

competitiveness & markets for innovative products & services = growth and jobs

**A TRIPLE WIN
 FOR EUROPE**



APPRE

... per finire



INNOVATION UNION

A Europe 2020 Initiative

European Commission > Innovation Union > European Innovation Partnerships

Home

Press Room

Innovation Union

+ Why?

+ Key initiatives

+ What it means to me

Key documents

Innovation made in the EU

EXPERIENCE INNOVATION

Innovation Union Lab

Videos

TALES FROM THE FUTURE

Innovation Union means
More jobs, improved lives, better society

European Innovation Partnerships

European Innovation Partnerships (EIPs) are a new approach to EU research and innovation. EIPs are challenge-driven, focusing on societal benefits and a rapid modernisation of the associated sectors and markets.

EIPs act across the whole research and innovation chain, bringing together all relevant actors at EU, national and regional levels in order to: (i) step up research and development efforts; (ii) coordinate investments in demonstration and pilots; (iii) anticipate and fast-track any necessary regulation and standards; and (iv) mobilise 'demand' in particular through better coordinated public procurement to ensure that any breakthroughs are quickly brought to market. Rather than taking the above steps independently, as is currently the case, the aim of the EIPs is to design and implement them in parallel to cut lead times.

EIPs streamline, simplify and better coordinate existing instruments and initiatives and complement them with new actions where necessary. This should make it easier for partners to co-operate and achieve better and faster results compared to what exists already. Therefore, they build upon relevant existing tools and actions and, where this makes sense, they integrate them into a single coherent policy framework. Flexibility is important; there is not a 'one-size-fits-all' framework.

EIPs are launched only in areas, and consist only of activities, in which government intervention is clearly justified and where combining EU, national and regional efforts in R&D and demand-side measures will achieve the target quicker and more efficiently.

European Innovation Partnership
Active & Healthy Ageing

European Innovation Partnership
on Agricultural Sustainability and Productivity

Proposed European Innovation Partnership
on Smart Cities and Communities

European Innovation Partnership
on **Water**

European Innovation Partnership
on **Raw Materials**

http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip



Informazione e monitoraggio on-line

The Innovation Union
Information and
Intelligence System



<http://i3s.ec.europa.eu/>



APPRE

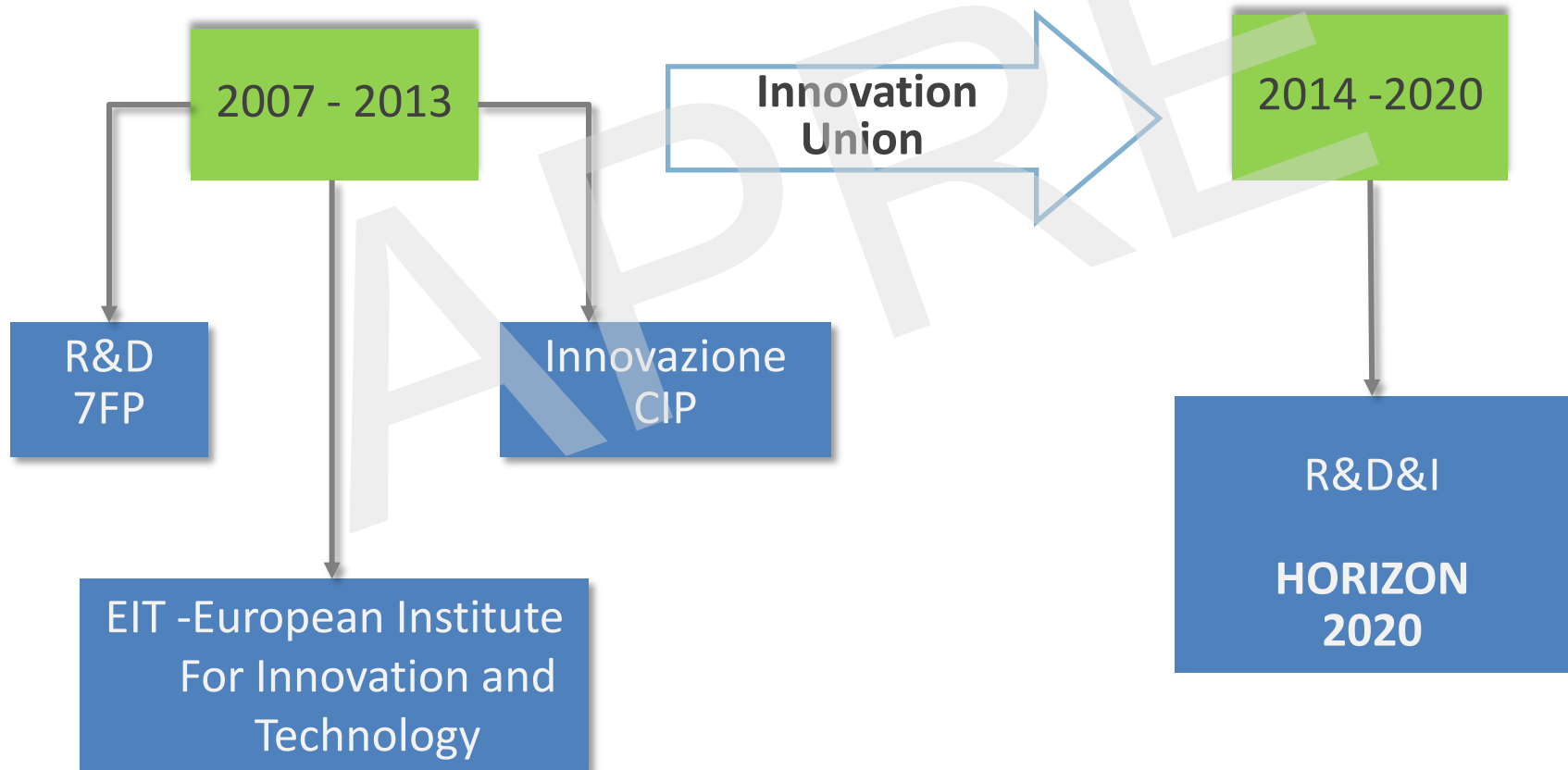
2.HORIZON 2020

Architettura



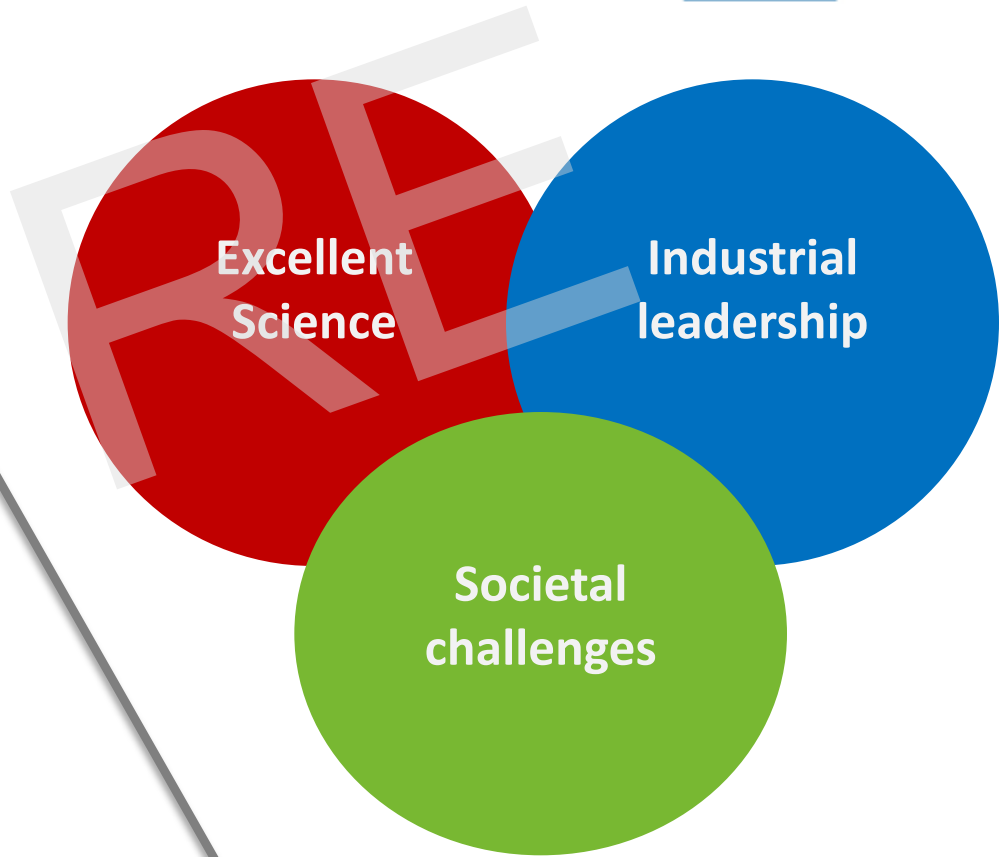
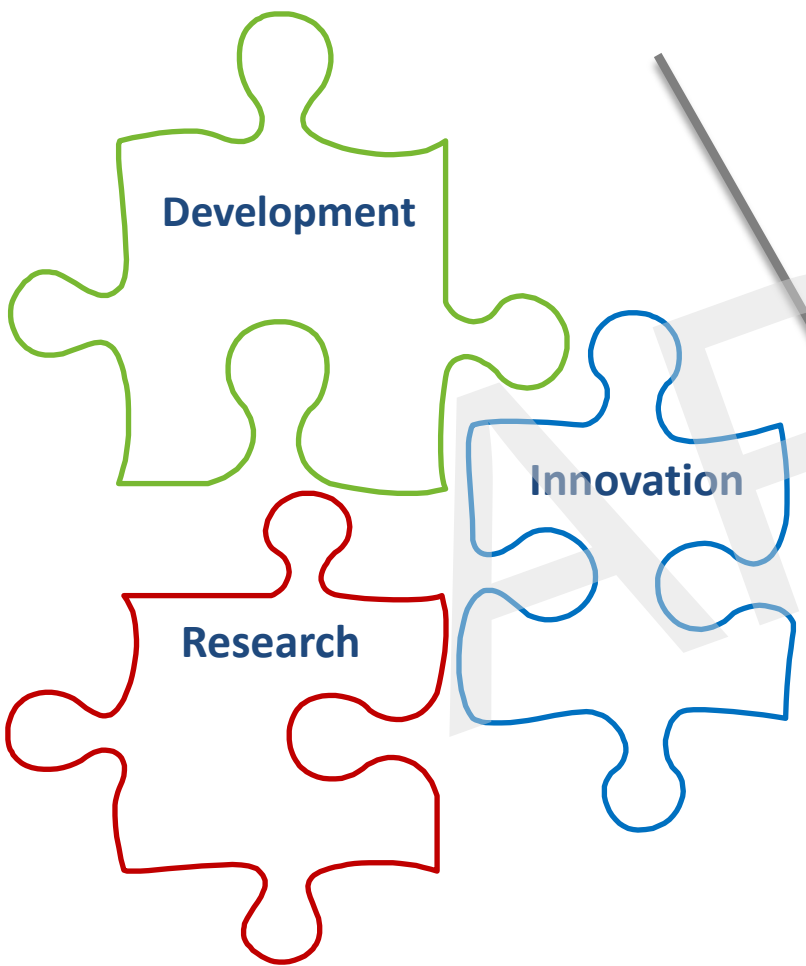


Verso un unico programma R&D&I



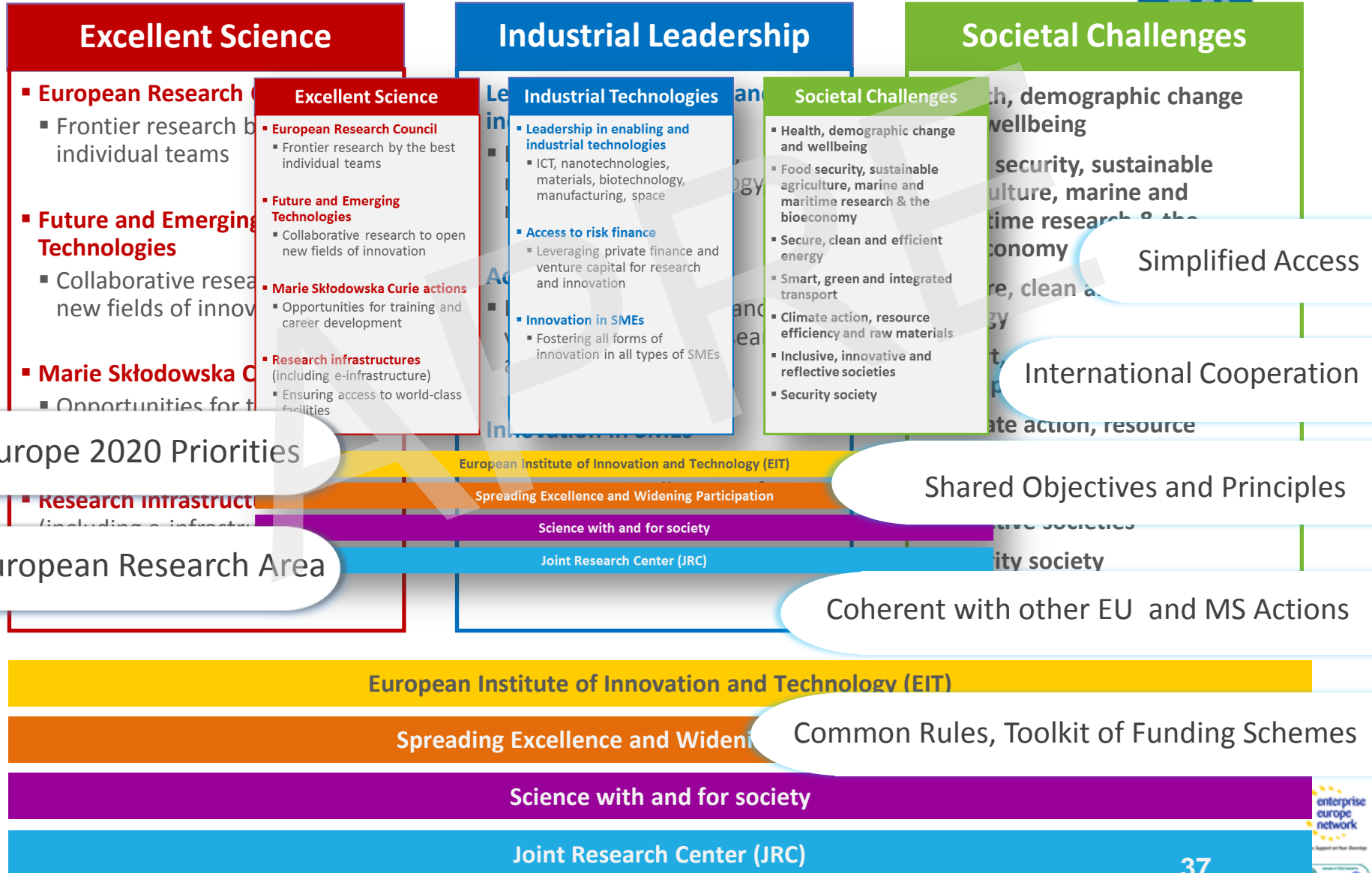


Un progetto in Horizon 2020...



...a stronger, clear focus

Struttura del programma





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



70,2 Miliardi di € - prezzi costanti
 (incluso EURATOM)

78,6 Miliardi di € - prezzi correnti

Quadro finanziario pluriennale
 2014/2020 - MFF

CALENDARIO

	TIMING	SOGGETTI COINVOLTI
Proposta Commissione sul Quadro Finanziario Pluriennale 2014-2020 Link	6 Luglio 2011	
Proposta Commissione su Horizon 2020 <ul style="list-style-type: none"> Regolamento che istituisce il Programma Quadro di R&I - Horizon 2020 Link Regole di partecipazione e di diffusione Link Programma specifico recante attuazione di Horizon 2020 Link Partial General Approach del Consiglio sul Programma Quadro Link	30 Novembre 2011	
Partial General Approach del Consiglio sulle regole di partecipazione e di diffusione Link	Maggio 2012	
Voto al Parlamento Europeo del Comitato ITRE (documento del Trilogo) Link	Ottobre 2012	
Partial General Approach del Consiglio sul Programma Specifico Link	Novembre 2012	
Consiglio Europeo sul Quadro Finanziario Pluriennale Link	Dicembre 2012	
Voto in plenaria del PE sul Quadro Finanziario Pluriennale Link	7-8 febbraio 2013	
Voto in plenaria del PE su H2020 * <i>interrogazioni</i>	13-14 marzo 2013	
Adozione della posizione comune del Consiglio sul Quadro Finanziario Pluriennale	10 – 13 giugno 2013	
Conciliazione tra PE e Consiglio sul regolamento di H2020	27-28 giugno 2013	
Parlamento Europeo: adozione del regolamento di H2020	9 Luglio 2013	
Consiglio Europeo formale: adozione del regolamento di H2020	20 -21 Novembre 2013	
⇒ Lancio di H2020 e dei primi bandi	3 Dicembre 2013	
	11 Dicembre 2013	



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RESEARCH & INNOVATION
Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT ▾ LOGIN REGISTER

Horizon 2020 Funding

Starting from 1/1/2014

On this site you can find and secure **funding** for research & innovation projects under the following EU programmes:

- **2014-2020** Horizon 2020 - research and innovation framework programme
- **2007-2013** 7th research framework programme (FP7) and Competitiveness & Innovation Programme (CIP)

Non-registered users

- search for funding
- read the funding guide & download the legal documents
- check if an organisation is already registered
- contact our support services or check our FAQs

Registered users

- submit your proposal
- sign the grant
- manage your project throughout its lifecycle

WHAT'S NEW?

FUNDING OPPORTUNITIES

HOW TO PARTICIPATE

WORK AS AN EXPERT

MY PERSONAL AREA

INFORMATION AND SUPPORT

RESEARCH ON EUROPA CORDIS OLAF

© European Communities

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

RESEARCH & INNOVATION
Participant Portal

Research & Innovation > Participant Portal > Calls

OPPORTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT ▾ LOGIN REGISTER

Horizon 2020

Excellent Science

- European Research Council
- Future and Emerging Technologies
- Marie Skłodowska-Curie actions
- Research infrastructures

Industrial Leadership

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

Filter a call

Type

- Proposal
- Tender

Status

- Open
- Closed
- Forthcoming

Sort by Title Call Id Publication Date Deadline Date

<p>Industrial Leadership BIOTECHNOLOGY H2020-LEIT-BIO-2015-1</p> <p>Pub.Date: 11/12/2013 Deadline: 24/02/2015</p>	<p>Industrial Leadership BIOTECHNOLOGY H2020-LEIT-BIO-2014-1</p> <p>Pub.Date: 11/12/2013 Deadline: 12/03/2014</p>	<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-ERA-NET-2015</p> <p>Pub.Date: 11/12/2013 Deadline: 26/03/2015</p>
<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-CSA-2015</p> <p>Pub.Date: 11/12/2013 Deadline: 26/03/2015</p>	<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-PILOTS-2015</p> <p>Pub.Date: 11/12/2013 Deadline: 26/03/2015</p>	<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-GV-2014</p> <p>Pub.Date: 11/12/2013 Deadline: 07/10/2014</p>
<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-CSA-2014</p> <p>Pub.Date: 11/12/2013 Deadline: 26/03/2015</p>	<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-2014-two-stage</p> <p>Pub.Date: 11/12/2013 Deadline: 26/03/2015</p>	<p>Industrial Leadership Call for Nanotechnologies, Advanced Materials and Production H2020-NMP-2015-two-stage</p> <p>Pub.Date: 11/12/2013 Deadline: 26/03/2015</p>

FP7 & CIP Programmes



Accordo sul Budget

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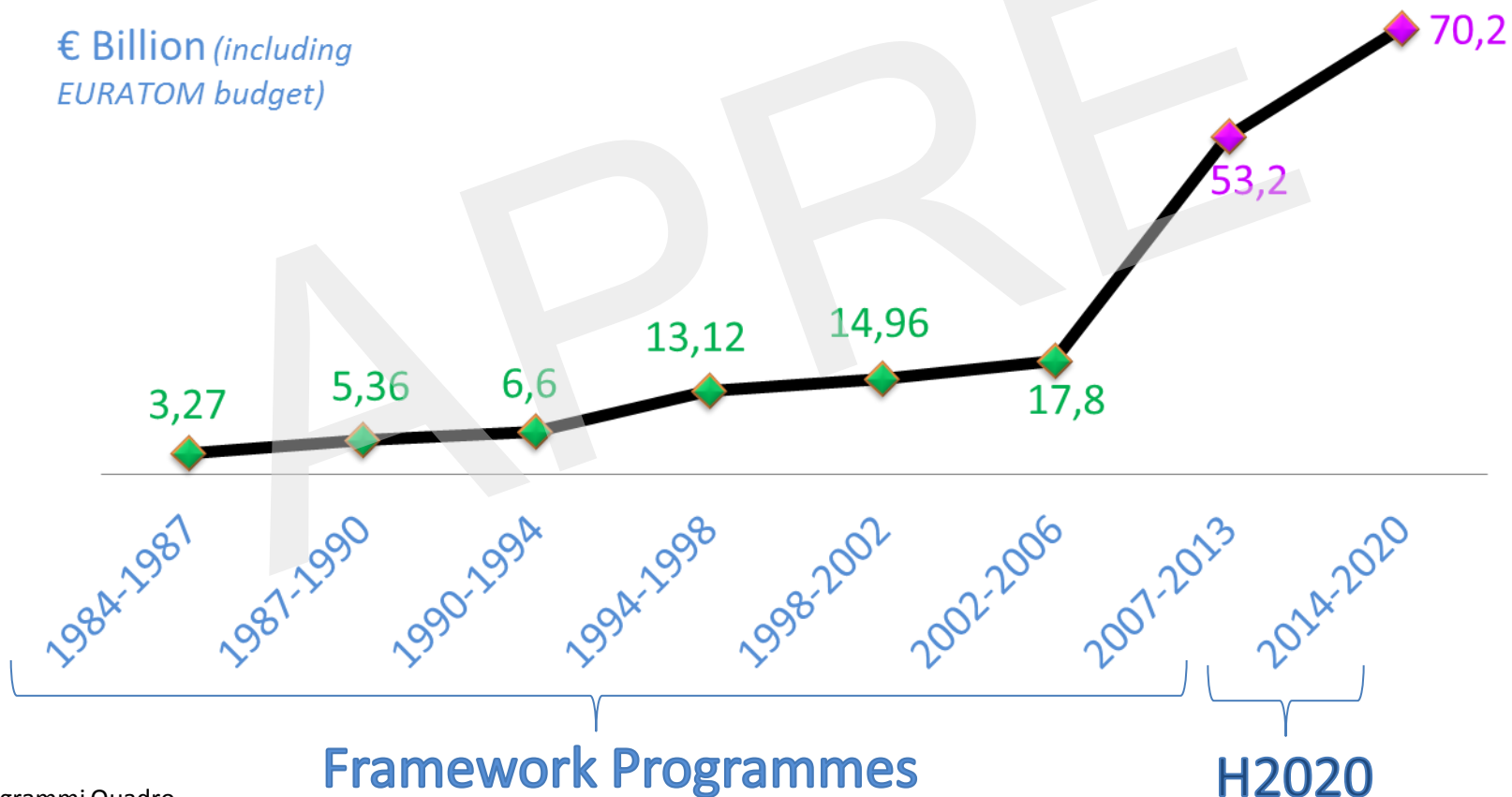
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Quadro finanziario pluriennale
 2014/2020 - MFF



Budget da FP1 a Horizon 2020

€ Billion (including EURATOM budget)



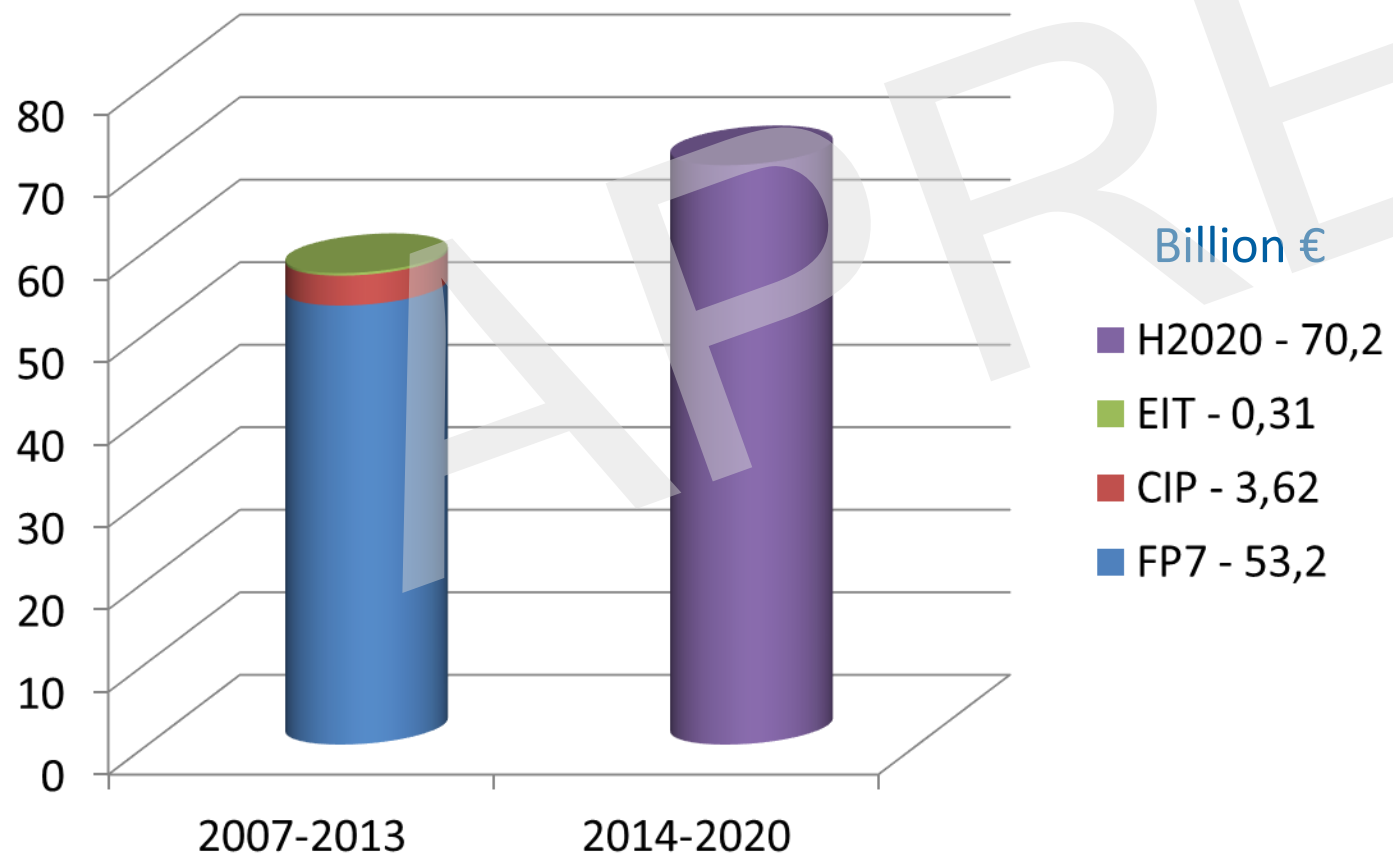
Framework Programmes

H2020

- Programmi Quadro quadriennali e quinquennali
- Programmi Quadro settennali.



Budget: past & present



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)

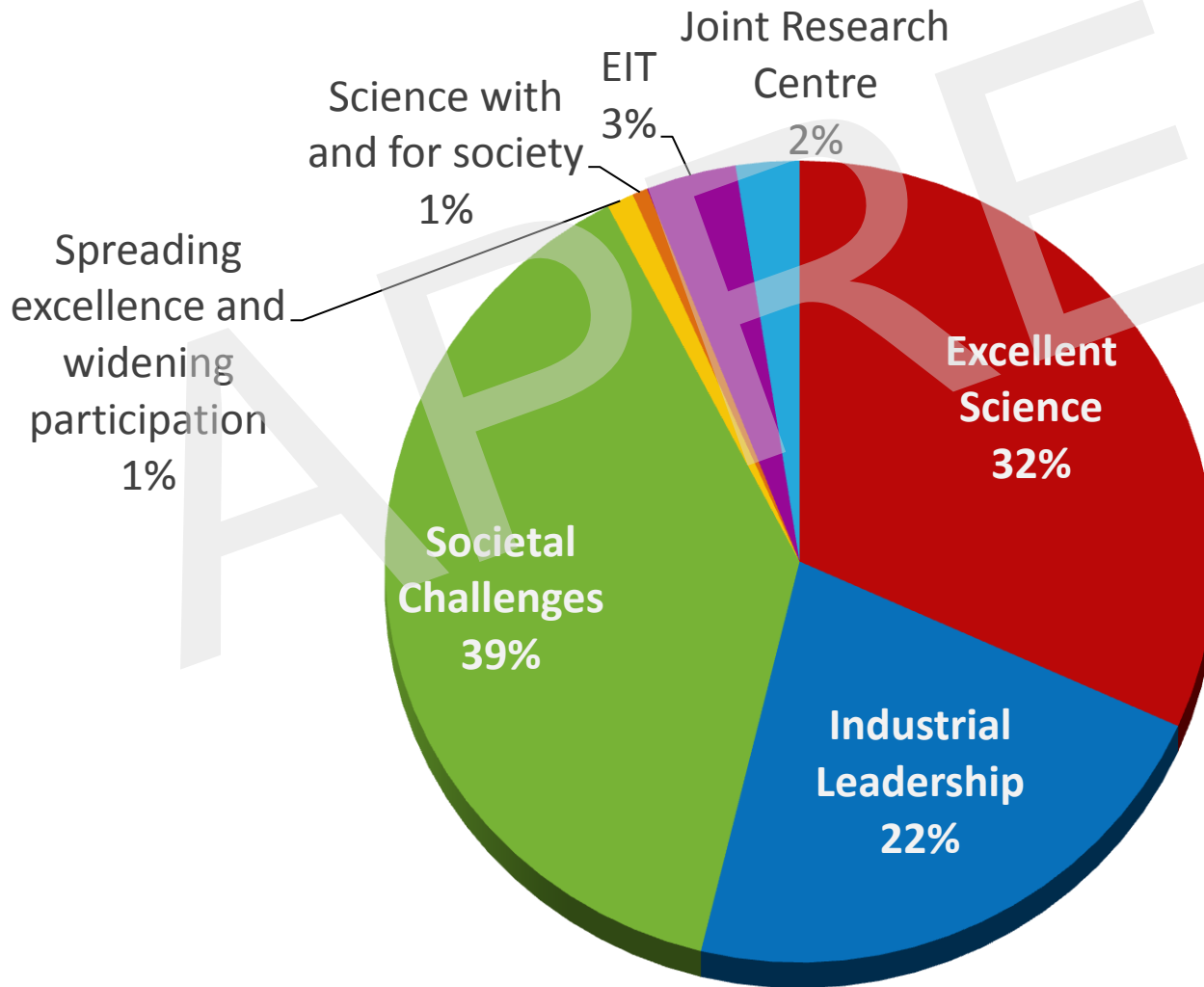
Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

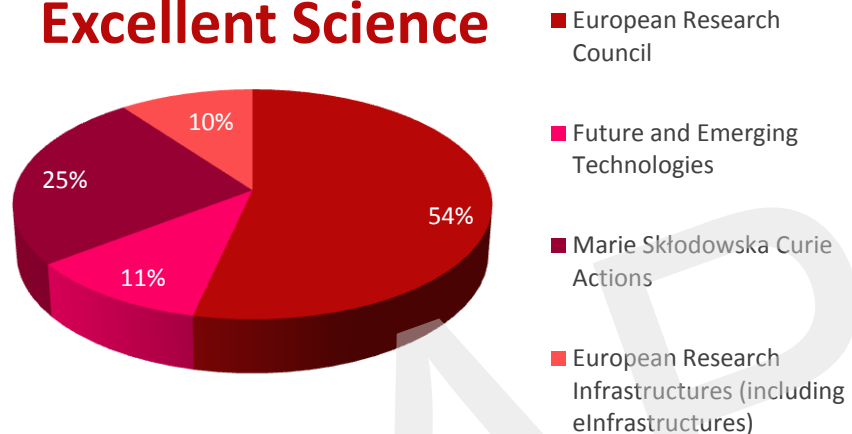


Ripartizione finanziaria

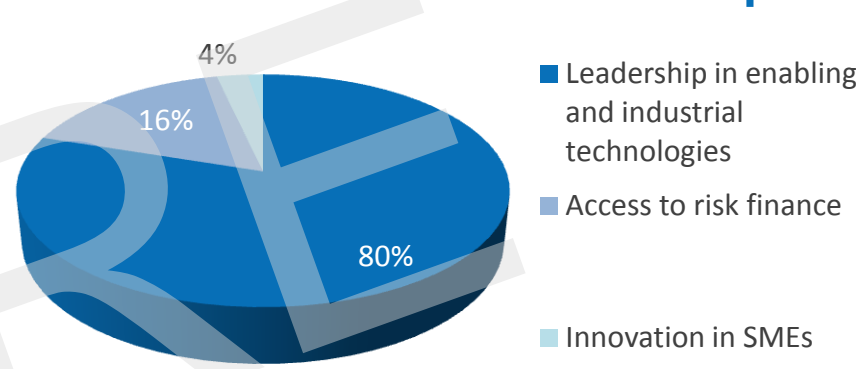


Il budget per le attività

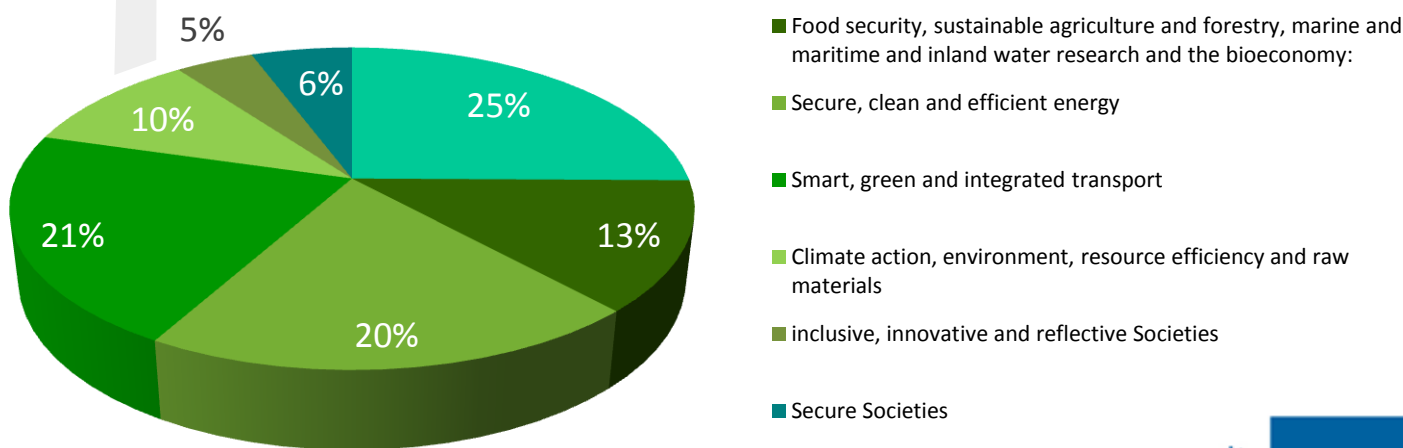
Excellent Science



Industrial Leadership



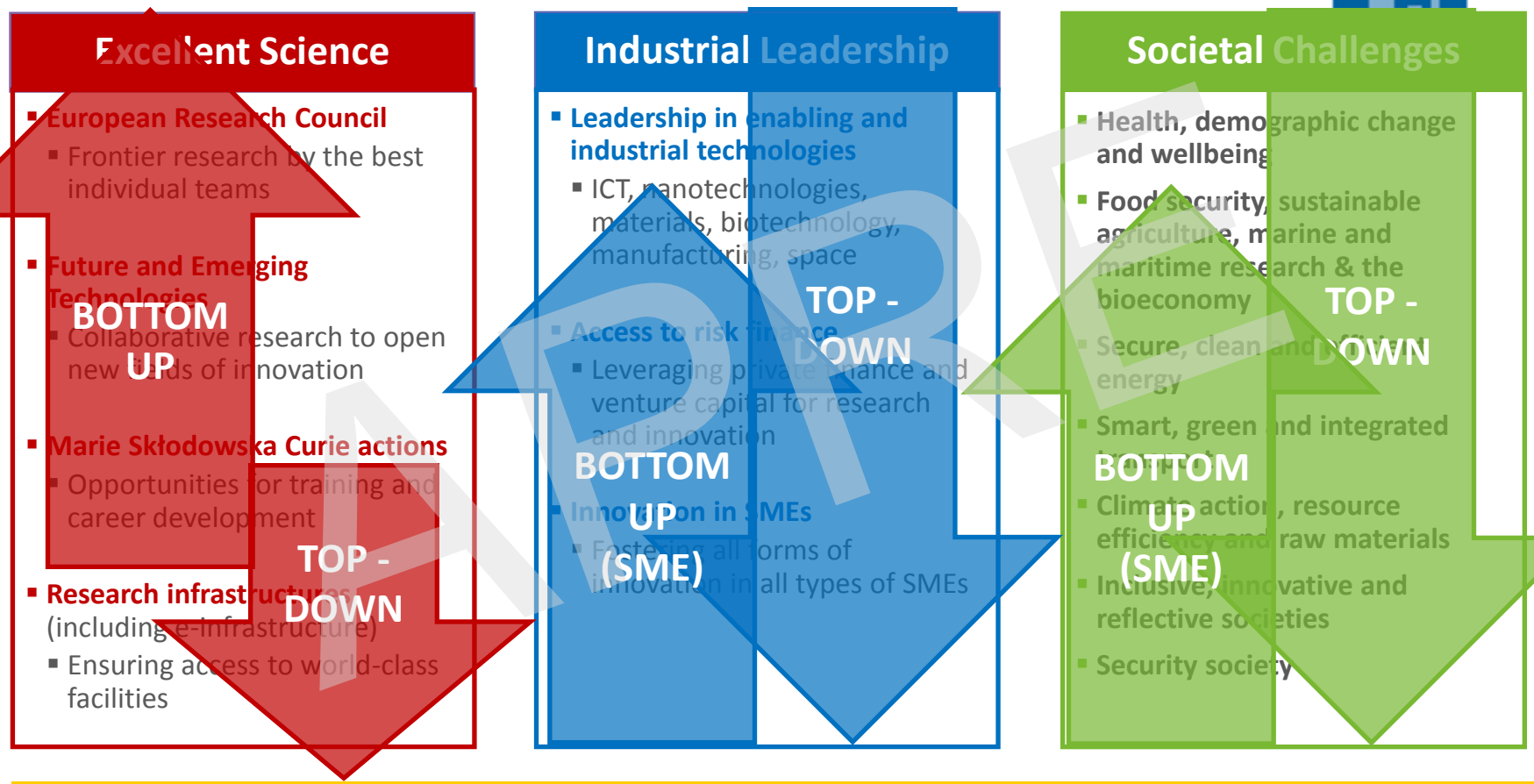
Societal challenges



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



European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)



APPRE

1° PILLAR

EXCELLENT SCIENCE



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

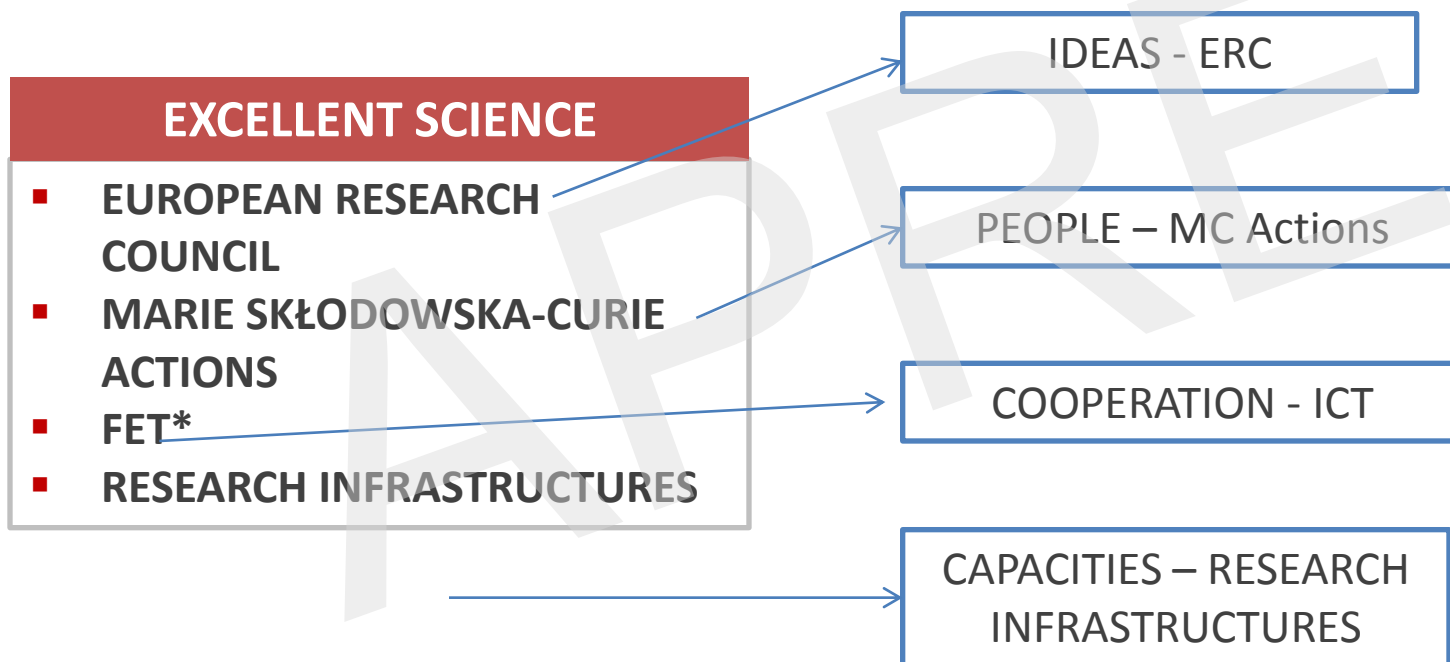
Science with and for society

Joint Research Center (JRC)



H2020

FP7



**Le FET, che nell' FP7 riguardavano solo ICT, in H2020 saranno trasversali ad altre tematiche.*



Excellent Science/1

Razionale:

- La Scienza di Eccellenza è alla base delle tecnologie di domani, del lavoro e del benessere
- L'Europa ha bisogno di formare, attrarre e trattenere i ricercatori talentuosi
- I ricercatori necessitano l'accesso alle migliori infrastrutture

Excellent Science /2



Per sostenere le migliori idee e sviluppare competenze, per fare dell'Europa un polo di attrazione per i migliori ricercatori mondiali



Excellent Science /1

Budget proposto (milioni di €)



22.274 M €

	EC	EP	Compromise - Current -
European Research Council	15.008	13.268	13.095
Future and Emerging Technologies	3.505	3.100	2.696
Marie Skłodowska-Curie Actions	6.503	5.572	6.162
Research Infrastructures	2.802	2.478	2.488



APPRE



Consiglio Europeo della Ricerca



Obiettivi

L' **ERC** incoraggia proposte che

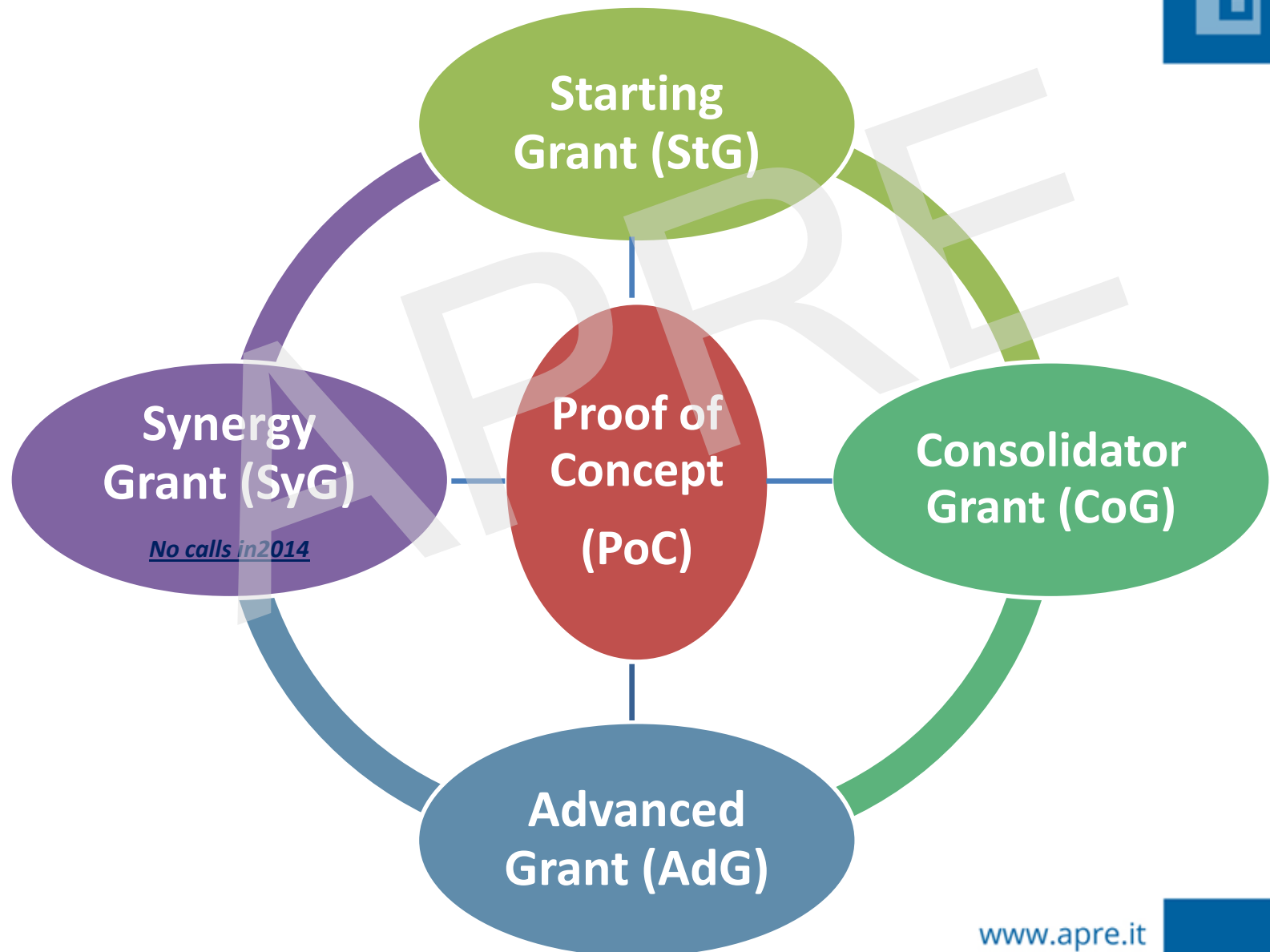
- superino le **tradizionali barriere** tra le discipline
- trattano **settori nuovi ed emergenti**
- **high-risk, high-gain**
- **ground-breaking**

L' **ERC** finanzia I migliori ricercatori e la ricerca di frontiera

- Valutazione basata sul solo principio dell'**eccellenza**
- Approccio **Bottom up**
- **Grants** finanziariamente consistenti



Schemi di finanziamento



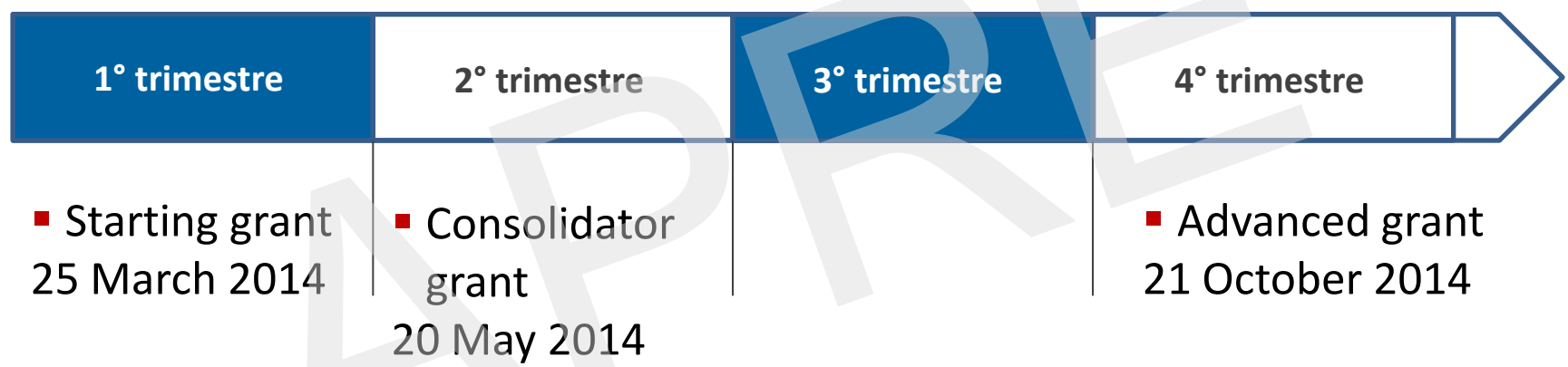
Consiglio Europeo della Ricerca

- ERC organo indipendente (ERCEA agenzia esecutiva)
- Schemi

FP7	Eleggibilità	Finanziamento
ERC Starting	2-7 anni tra conseguimento del phd e pubblicazione del bando	1,5 mln € per 5 anni
ERC Consolidator	7-12 anni dal phd tra conseguimento del phd e pubblicazione del bando	2 mln € per 5 anni
ERC Advanced	Almeno 10 anni di esperienza on ricerca	2,5 mln € per 5 anni
ERC Sinergy	<ul style="list-style-type: none"> • Da due a quattro PI • transdisciplinarietà 	15 mln € per 6 anni
ERC Proof of Concept	Per grantees finanziati	150.000€ per 12(18) mesi

ERC: Calls 2014*

2014



- Synergy grant: no call nel 2013 e 2014
- Proof of Concept: 1 call con doppia scadenza nel 2014 (inizi di aprile e di ottobre)

*proposta ERC, da approvare



ERC 2014 calls

	<i>Starting Grant</i>	<i>Consolidator Grant</i>	<i>Advanced Grant</i>	<i>Proof of Concept Grant</i>
<i>Call identifier</i>	ERC-2014-StG	ERC-2014-CoG	ERC-2014-AdG	ERC-2014-PoC
<i>Publication date</i>	11 December 2013	11 December 2013	17 June 2014	11 December 2013
<i>Deadline(s)</i>	25 March 2014	20 May 2014	21 October 2014	1 April 2014 1 October 2014
<i>Budget million EUR (estimated number of grants)</i>	485 (370)	713 (400)	450 (200)	15 (100)
<i>Planned dates to inform applicants</i>	21 July 2014 21 November 2014	31 October 2014 15 January 2015	10 March 2015 28 April 2015	31 July 2014 13 January 2015
<i>Indicative date for signature of grant agreements</i>	21 March 2015	15 May 2015	28 August 2015	31 November 2014 13 May 2015



APPRE

FET
FUTURE AND EMERGING
TECHNOLOGIES



FET in Horizon 2020

"**Future and emerging technologies** shall support collaborative research in order to extend Europe's capacity for advanced and paradigm-changing innovation. It shall foster scientific collaboration across disciplines on radically new, high-risk ideas and accelerate development of the most promising emerging areas of science and technology as well as the Union wide structuring of the corresponding scientific communities."

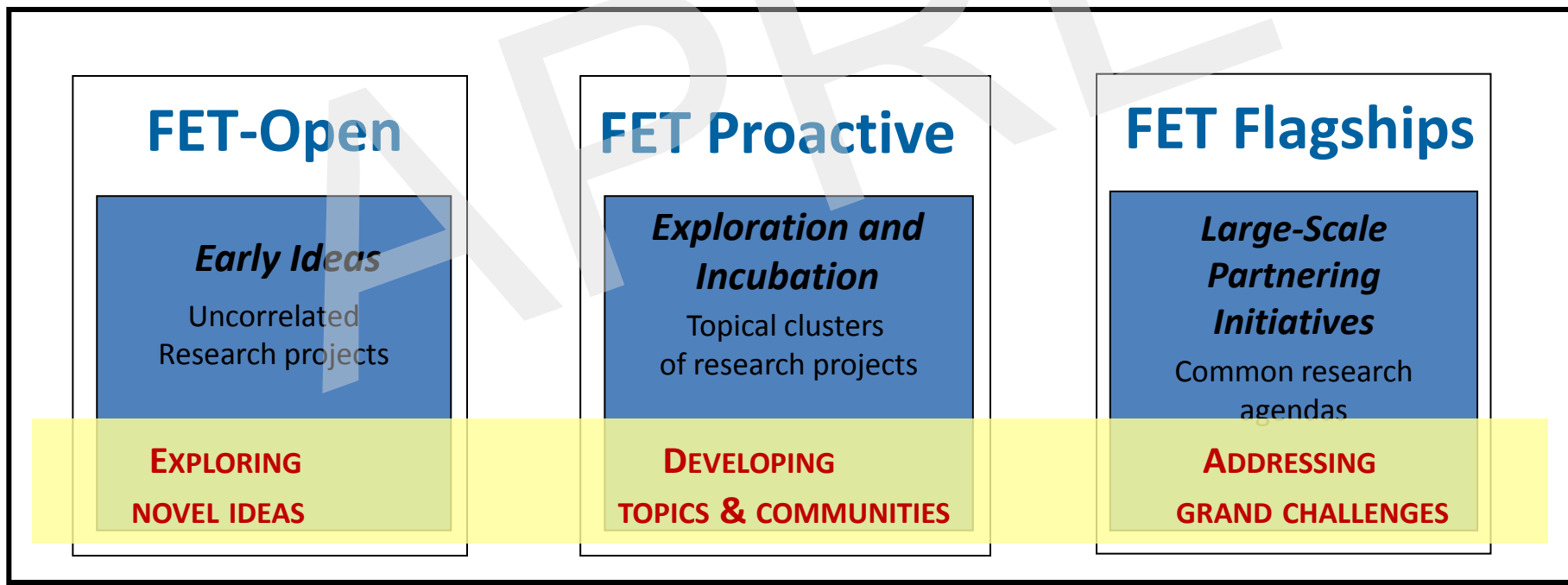
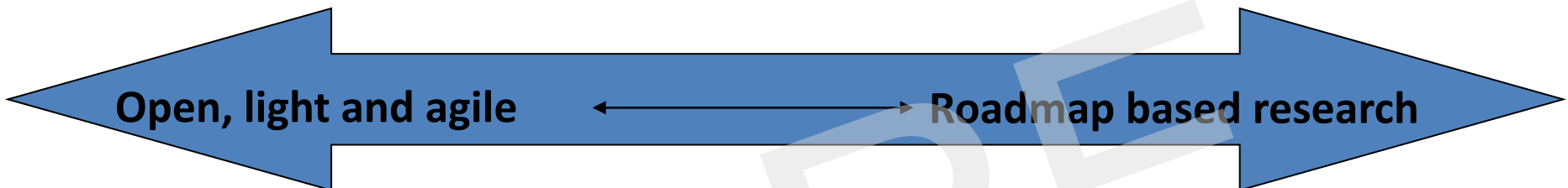


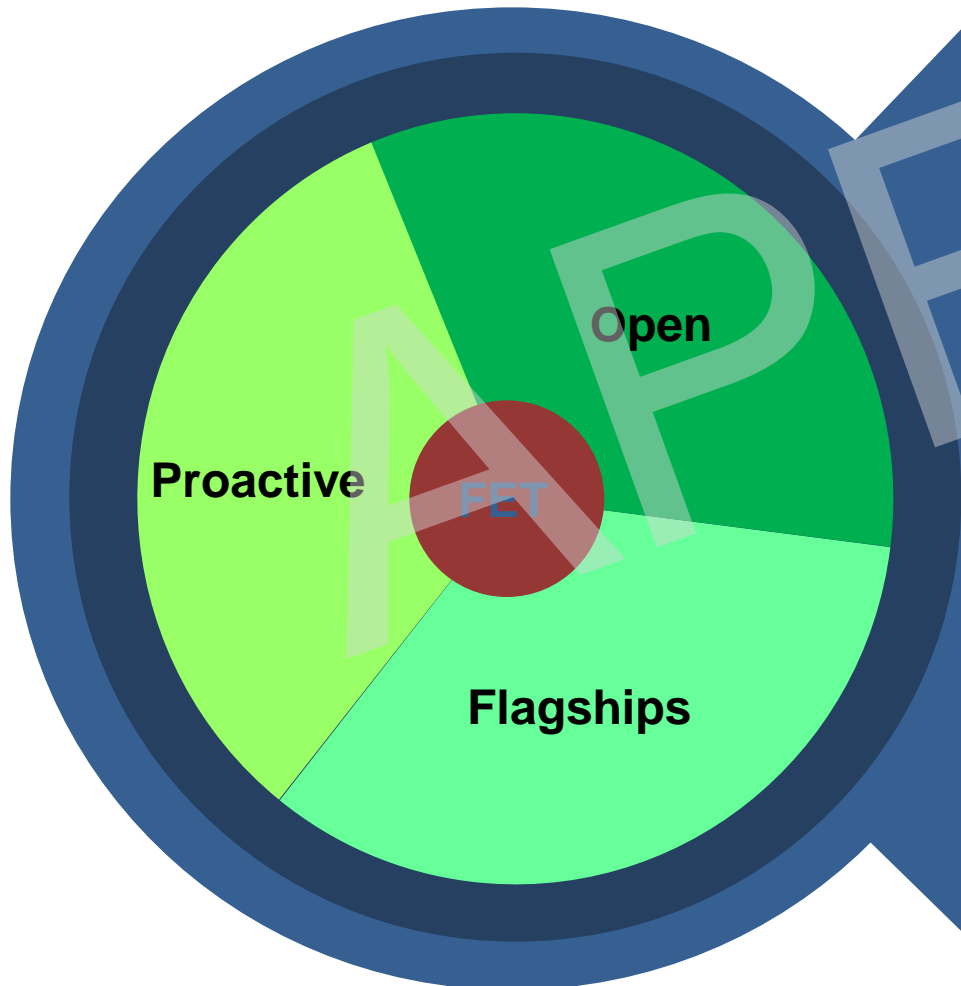
FET's missions

- Seeds of future industrial leadership and potential solutions for societal challenges by:
 - Fostering the emergence of radically new technology areas
 - Building innovation eco-systems around them
- To turn Europe into the best environment for research on future and emerging technologies
 - including facilitating the wider training of researchers in new areas.



FET – three complementary funding schemes





New interdisciplinary synergies, new collaborations and new actors

Promoting new approaches and tools for doing science

Innovation by building leadership in new technologies as a baseline for industry and spin-offs and by digital science

Responsible research and innovation promoting societal debate and scientific exchanges and ethics



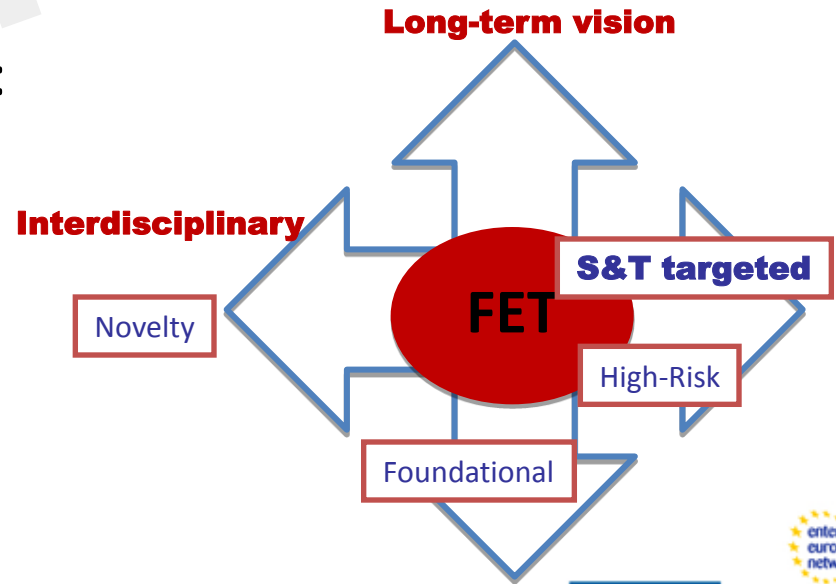
FET OPEN

'Open is open': all technologies, **NO TOPICAL SCOPE.**
BOTTOM-UP, but targeted - not blue sky research

40% of the FET budget in H2020 (>1B€). FET gatekeepers define the kind of research that FET is looking for.

An end-to-end light and fast scheme:

- Deadline free (indicative 30/09/2014)
- 15 page proposals
- 1 step submission, 1 stage evaluation
- 3 evaluation criteria (60% S&T)



Instruments: R& I action - CSA



FET Gatekeepers

- **Long-term vision:** a new, original or radical long-term vision of technology-enabled possibilities going far beyond the state of the art
- **Breakthrough S&T target:** scientifically ambitious and technologically concrete breakthroughs plausibly attainable within the life-time of the project.
- **Foundational:** the breakthroughs must be foundational in the sense that they can establish a basis for a new line of technology not currently anticipated.
- **Novelty:** new ideas and concepts, rather than the application or incremental refinement of existing ones.
- **High-risk:** the potential of a new technological direction depends on a whole range of factors that cannot be apprehended from a single disciplinary viewpoint.
 - This inherent high-risk has to be countered by a strongly interdisciplinary research approach, where needed expanding well beyond the strictly technological realm.
- **Interdisciplinary:** the proposed collaborations must go beyond current mainstream collaboration configurations in joint S&T research, and must aim to advance different scientific and technological disciplines together and in synergy towards a breakthrough.



FETOPEN 1: FET-Open research projects

Specific challenge

- **Supporting a large set of early stage, high risk visionary science and technology collaborative research projects** is necessary for the successful exploration of new foundations for radically new future technologies. Nurturing fragile ideas requires an agile, risk-friendly and highly interdisciplinary research approach, expanding well beyond the strictly technological disciplines. Recognising and stimulating the driving role of new high-potential actors in research and innovation, such as women, young researchers and high-tech SMEs, is also important for nurturing the scientific and industrial leaders of the future.

Project size: 2 to 4M€

- 1 step submission and evaluation of a 16 pages proposal ←
- Proposals are not anonymous ←

Deadlines	30/09/2014	31/03/2015	29/09/2015
Budget	77 M€	38,5 M€	38,5M€

- Budget: 154M€



FETOPEN 2: Coordination and Support Activities 2014

Specific challenge: The challenge is to make Europe the best place in the world for collaborative research on future and emerging technologies that will renew the basis for future European competitiveness and growth, and that will make a difference for society in the decades to come.

Scope: Proposals shall address one of the following topics:

- **FET Observatory:** identifying new opportunities and directions for FET research
 - **FET Communication:** communicating on FET projects and activities
 - **FET Exchange:** structuring an emerging FET-relevant topic and communities
 - **FET Conference:** supporting the organisation of the third FET Conference
 - **FET Prizes:** identifying suitable areas for prizes and competitions in FET
 - **FET Impact:** Assessing the impacts of the FET programme
- Project size: 0,3 to 0,5M€ per topic, up to 1M€ for FET Conference
 - Budget & deadline:
 - **3M€ -> Deadline: 30/9/2014**

FETOPEN 3 : Coordination and Support Activities 2015

Specific challenge: The challenge is to make Europe the best place in the world for collaborative research on future and emerging technologies that will renew the basis for future European competitiveness and growth, and that will make a difference for society in the decades to come.

Scope: Proposals shall address one of the following topics:

- **FET Exchange:** structuring an emerging FET-relevant topic and communities
- **FET Take-Up:** actions for stimulating take-up of FET research results towards impact and innovation
- Project size: 0,3 to 0,5M€ per topic
- Budget & Deadline:
 - 1,5M€ -> Deadline: 31/3/2015
 - 1,5M€ -> Deadline: 29/9/2015



AN END TO END LIGHT AND FAST SCHEME

- Call
 - FET- Open
 - Continuously open
 - Cut-off date every 6 months March & Sept, starting as of Sept 2014
- Submission & Evaluation
 - 'Short' proposals , 1 step submission using FET specific template
 - 1 stage evaluation based on FET specific evaluation criteria
 - High quality peer review – 4 experts per proposals to best address multi-disciplinary nature of FET research
- Grant
 - Grant based on proposal 'as-is' -> No negotiation
 - All information needed has to be in the proposal !
 - Time to contract of max. 8 months from call deadline/cut-off date
 - ESR within 5 months, contracts within 3 extra months !



ELIGIBILITY FOR FET-OPEN RESEARCH PROJECTS

- **Standard criteria** (i.e. collaborative project with minimum 3 legal entities, each established in different MS/AC)
- **+1 FET specific criterion:**
 - The part B (cover page and sections 1, 2 and 3) is strictly limited to 16 A4 pages and shall consist of:
 - **A single A4 title page with acronym, title and abstract of the proposal.**
 - **Maximum 15 A4 pages consisting of an S&T section (section 1), an Impact section (section 2) and an Implementation section (section 3).**



ONE STEP SUBMISSION AND EVALUATION

- Part A: Administrative part of the proposal
- Part B : Scientific part of the proposal

- 16 pages – core proposal

- Cover page
- Section 1: S&T Excellence
- Section 2: Impact
- Section 3: Implementation

Cover page strictly limited to 1 page!

Section 1,2 & 3 are strictly limited to 15 pages!

- Additional information

- Section 4: Members of the consortium
 - E.g. legal entity, CV, subcontract, third party
- Section 5: Ethics and Security
 - Ethics self-assessment & supporting documents
 - Security checklist

Section 4 & 5 are not covered by the page limit.

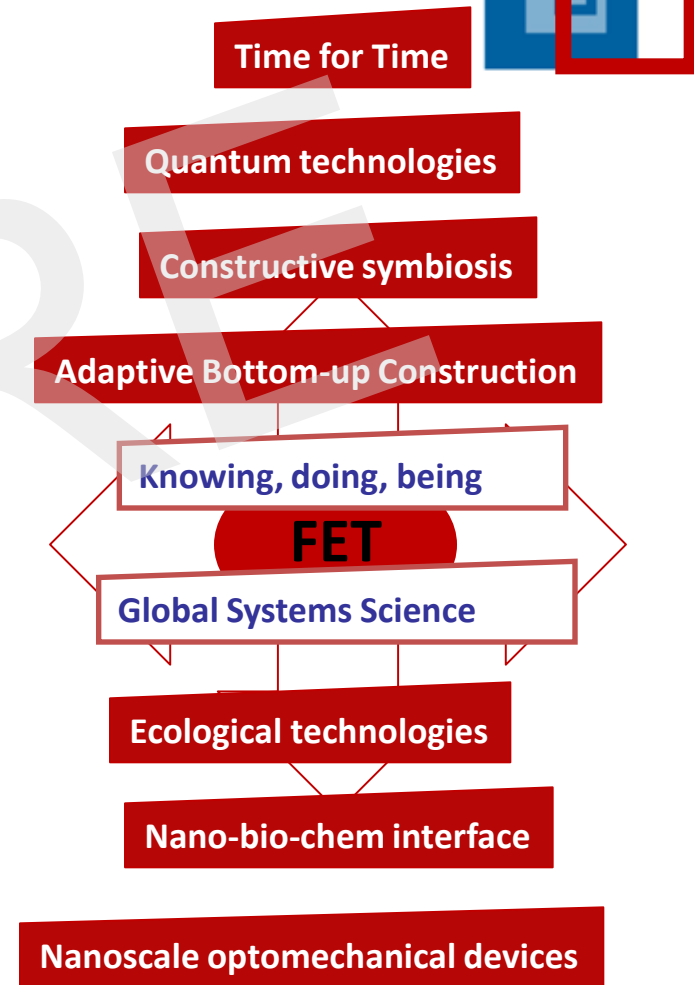
- Proposals are not anonymous!

EVALUATION CRITERIA (RESEARCH PROJECT)

Excellence	Impact	Implementation
<ul style="list-style-type: none"> ☐ Clarity of targeted breakthrough and its specific science and technology contributions towards a long-term vision. ☐ Novelty, level of ambition and foundational character. ☐ Range and added value from interdisciplinarity. ☐ Appropriateness of the research methods. 	<ul style="list-style-type: none"> ☐ Importance of the new technological outcome with regards to its transformational impact on technology and/or society. ☐ Quality of measures for achieving impact on science, technology and/or society. ☐ Impact from empowerment of new and high potential actors towards future technological leadership. 	<ul style="list-style-type: none"> ☐ Quality of the workplan and clarity of intermediate targets. ☐ Relevant expertise in the consortium. ☐ Appropriate allocation and justification of resources (person-months, equipment, budget).
<p>Threshold: 4/5 Weight: 60%</p>	<p>Threshold: 3,5/5 Weight: 20%</p>	<p>Threshold: 3/5 Weight: 20%</p>

FET PROACTIVE

- Topics coming out of the **on-line consultation** (1297 contributions received to the FET on-line consultation, 9 candidate topics + *Complemented by a special action: high-performance computing*)
- **Collaborative research**
- A set of **thematic initiatives** on promising **emerging research themes**.
- Fixed deadlines calls
- 15 page proposals
- 1 step submission, 1 stage evaluation
- 3 evaluation criteria
- Instrument: Research and Innovation Actions (100% funding)





FET PROACTIVE WP 2014 -2015

Four proactive initiatives will be funded under WP 2014 - 2015:

- Global Systems Science (GSS)
- Knowing, doing, being: cognition beyond problem solving
- Quantum simulation
- Towards exascale high performance computing

The first three are implemented by this call. The fourth initiative implements, through a separate call (H2020-FETHPC), part of the HPC strategy elaborated in the context of the HPC Public-Private Partnership by ETP4HPC.

Publication date: 11/12/2013
 Deadline: 01/04/2014
 Instruments: Research and innovation actions
 Indicative budget: 33 Meuro (HPC excluded)

FET PROACTIVE WP 2014 -2015 /2

- **Global Systems Science (GSS) – (FETPROACT 1 – 2014)**
 - to improve the way scientific knowledge can help inform and evaluate policy and societal responses to global challenges like climate change, global financial crises, global pandemics, and growth of cities – urbanisation and migration patterns.

- **Knowing, doing, being: cognition beyond problem solving - (FETPROACT 2 – 2014)**
 - interdisciplinary fundamentals of knowing, thinking, doing and being, in close synergy with foundational research on future artificial cognitive systems, robots, smart artefacts and large scale cyber-physical systems.

- **Quantum simulation- (FETPROACT 3 – 2014)**
 - This objective challenges the research community to develop solutions using quantum technologies that will ultimately address real world problem, with a potential for disruptive change.



FET Flagship - WP 2014 - 2015

The topics in this call are aimed at ensuring the continuation of the two initiatives after the ramp-up phase:

HUMAN BRAIN

GRAPHENE

- Establishing a Framework Partnership Agreement with each of the two Flagships (topic 1 – no budget)
- Providing EU support through a core project to each of the two Flagships (topic 2 and 3 – no budget)
- Providing EU support for policy development actions for FET Flagship (topic 4, 1.6 Meuro budget for 2014).



APPRE

MSCA
MARIE SKŁODOWSKA-CURIE
ACTIONS



OBIETTIVO

Ensure the optimum development and dynamic use of Europe's intellectual capital in order to generate new skills, knowledge and innovation

Budget 2014-2020: 6 162 million €

MOBILITY





KEY FEATURES

- Open to all domains of **research and innovation** from basic research up to market take-up and innovation services
- Entirely **bottom-up**
- Participation of **non-academic** sector strongly encouraged, especially industry and SMEs
- **Mobility** as the key requirement - funding on condition participants move from one country to another
- Promotion of attractive **working and employment conditions**
- Particular attention to **gender** balance
- **Public engagement** of supported researchers
- 2014-2015: 10 calls foreseen -> one call per each MSC action per year + one call covering 2 years of European Researchers' Night + NCP



Marie Skłodowska-Curie Actions - MSCA

ITN
(including EID and IDP) → **Innovative Training Networks (ITN)**
Doctoral and initial training of researchers proposed by international networks of organisations from public and private sectors

IEF
IOF
IIF
CIG → **Individual Fellowships (IF)**
Individual fellowships for most promising experienced researchers to develop their skills through international or inter-sector mobility

IAPP
IRSES → **R&I Staff Exchange (RISE)**
International and inter-sector cooperation through the exchange of research and innovation staff

COFUND → **COFUND**
Co-funding of regional, national and international programmes





INNOVATIVE TRAINING NETWORKS (ITN)

MSCA - main EU programme for structured doctoral training

Objective

- ✓ raise excellence and structure research and doctoral training
- ✓ train a new generation of creative, entrepreneurial and innovative early-stage researchers

Scope

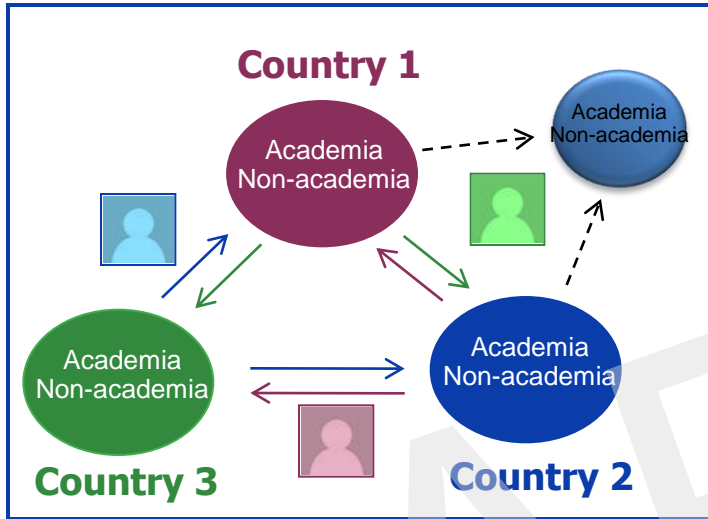
- ✓ European Training Networks (ETN), European Industrial Doctorates (EID) or European Joint Doctorates (EJD)
- ✓ Triple 'i' dimension of mobility and particular focus on innovation skills

Expected Impact

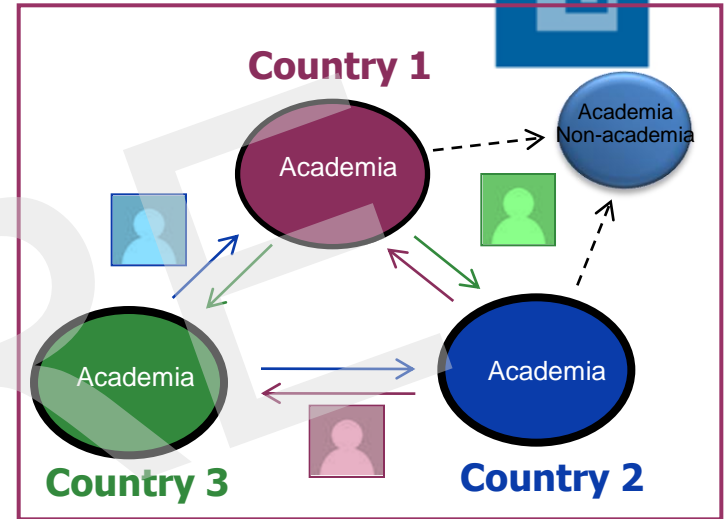
- ✓ structure research and doctoral training in Europe
- ✓ trigger cooperation and exchange of best practice among participants
- ✓ enhance researchers' employability and provide them with new career perspectives



ITN – CONSORTIA

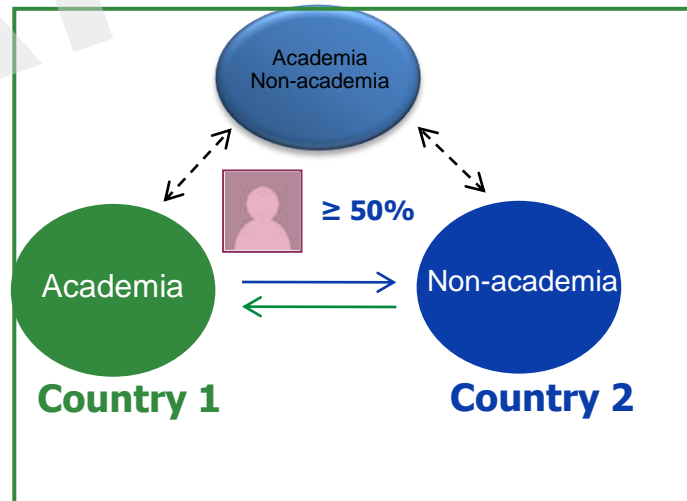


European Training Networks



European Joint Doctorates

European Industrial Doctorates





INDIVIDUAL FELLOWSHIPS (IF)

Objective

- ✓ enhance the creative and innovative potential of experienced researchers
- ✓ provide opportunities to acquire new knowledge, work on research projects in a European context or outside Europe, resume a career or return to Europe

Scope

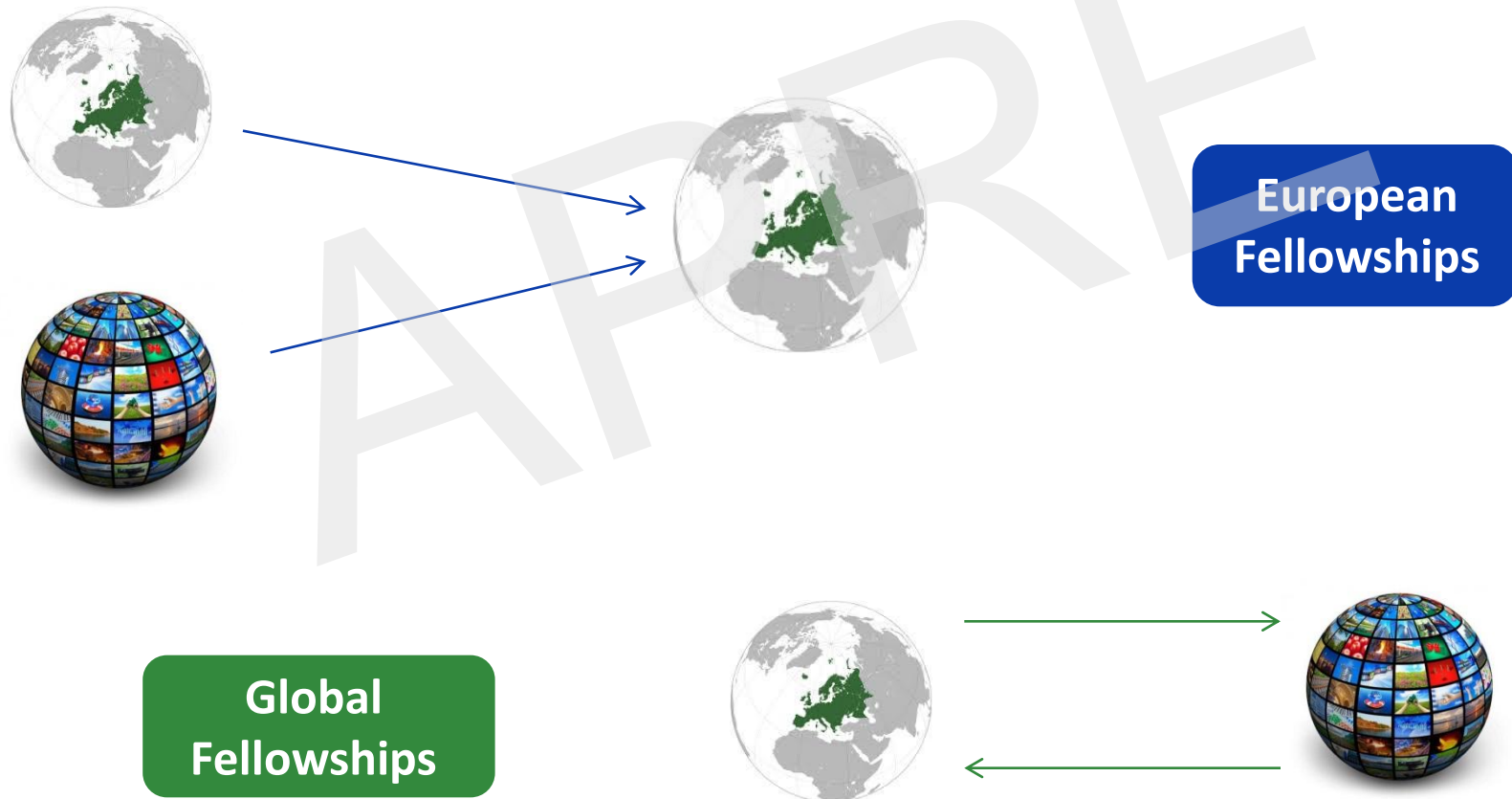
- ✓ Individual, trans-national fellowships awarded to the best or most promising researchers
- ✓ European Fellowships or Global Fellowships
- ✓ Career Restart Panel and Reintegration Panel



Expected Impact

- ✓ release the full potential of researchers and to catalyse significant development in their careers in both the academic and non-academic sectors
- ✓ strengthen the contact network of the researcher and the host organisation

IF – EUROPEAN AND GLOBAL





RESEARCH AND INNOVATION STAFF EXCHANGE (RISE)

Objective

- ✓ promote **international and inter-sector collaboration** through research and innovation staff exchanges
- ✓ foster a shared culture of research and innovation

Scope

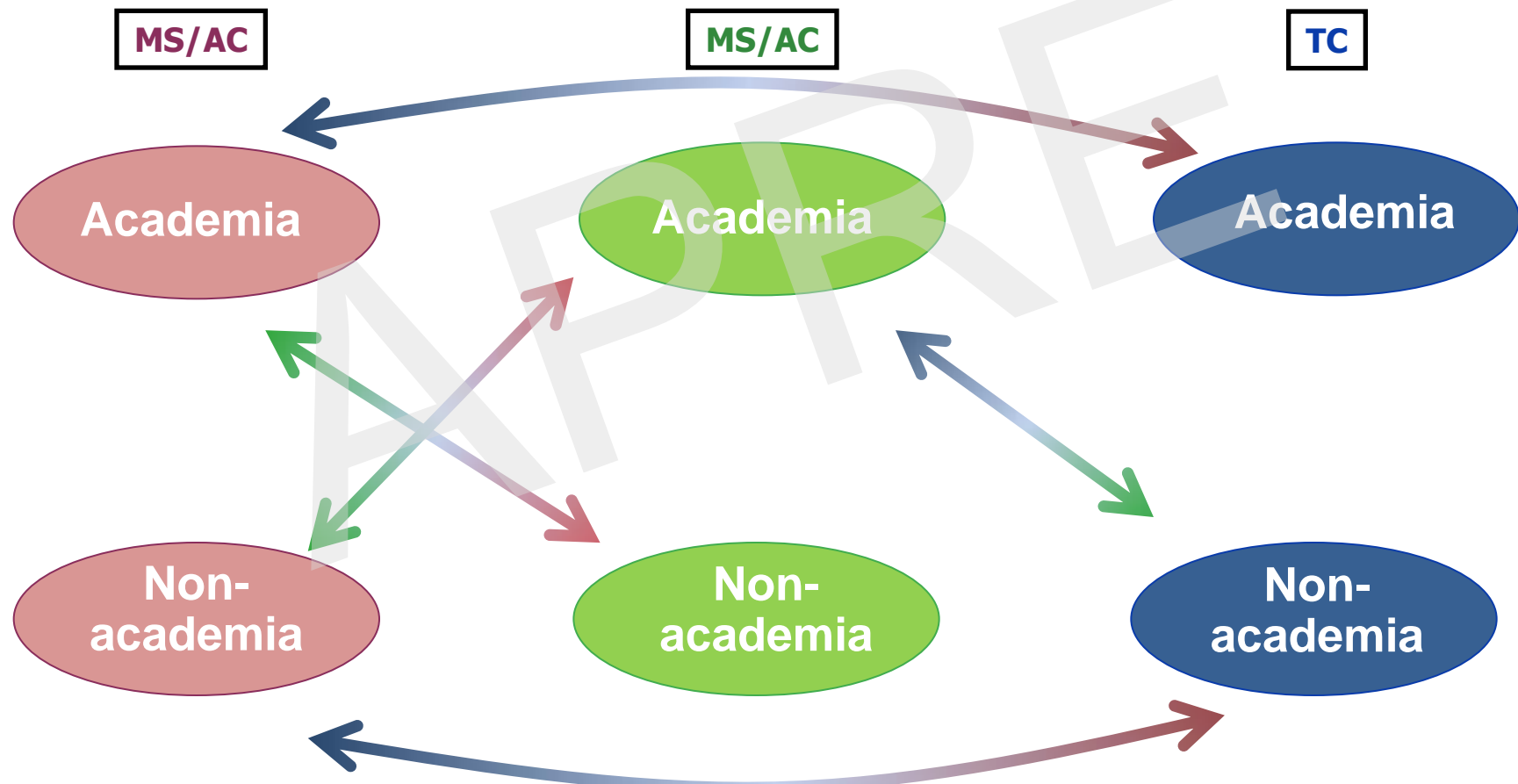
- ✓ International and inter-sector **transfer of knowledge** and sharing of ideas
- ✓ Common **research and innovation project**
- ✓ Highly skilled research and innovation staff
- ✓ **Within Europe: only inter-sector secondments**
- ✓ No secondments between institutions located outside Europe or within the same MS/AC



Expected Impact

- ✓ strengthen the interaction between organisations in the academic and non-academic sectors, and between Europe and third countries

RISE – EXCHANGES





MSCA to foster excellence throughout Europe

Objective

- ✓ stimulate regional, national or international programmes to foster excellence in researchers' training, mobility and career development

Scope

- ✓ international, intersectoral and interdisciplinary **research training**, as well as transnational and cross-sector **mobility** of researchers at all stages of their career
- ✓ Possibilities of synergies with structural funds
- ✓ Opportunities for **researchers from all countries**
- ✓ Researchers to comply with the mobility rules of the MSCA
- ✓ Open and transparent recruitment, vacancies widely publicised

Expected Impact

- ✓ exploit synergies between European Union actions and those at regional, national, and international level
- ✓ leverage funding and combat fragmentation



- ✓ Mono-beneficiary
- ✓ Legal entities (public and private) established in MS or AC and international European interest organisations



**Doctoral
Programmes**



**Fellowship
Programmes**



CALL DEADLINES 2014

Call ID	Call Opens	Call Deadline	Budget (Mio EUR)
H2020-MSCA-ITN-2014	11-12-2013	09-04-2014	405.18
H2020-MSCA-IF-2014	12-03-2014	11-09-2014	240.50
H2020-MSCA-RISE-2014	11-12-2013	24-04-2014	70.00
H2020-MSCA-COFUND-2014	10-04-2014	02-10-2014	80.00
H2020-MSCA-NIGHT-2014	11-12-2013	04-03-2014	8.00
H2020-MSCA-NCP-2014	11-12-2013	02-04-2014	1.50



CALL DEADLINES 2015

Call ID	Call Opens	Call Deadline	Budget (Mio EUR)
H2020-MSCA-ITN-2015	02-09-2014	13-01-2015	370.00
H2020-MSCA-IF-2015	12-03-2015	10-09-2015	213.00
H2020-MSCA-RISE-2015	06-01-2015	28-04-2015	80.00
H2020-MSCA-COFUND-2015	14-04-2015	01-10-2015	80.00





APPRE

RESEARCH INFRASTRUCTURE

Research Infrastructures

1. Developing the European RIs for 2020 and beyond

- Developing **new world-class RIs**
- **Integrating and opening national and regional RIs of pan-European interest**
- Development, deployment and operation of ICT based **e-Infrastructures**

2. Fostering the **innovation** potential of RIs and their **human resources**

3. Reinforcing European RI **policy** and **international cooperation**



European Research Infrastructures (ERI)



- Per definizione vengono considerate **Infrastrutture di Ricerca (IR)** risorse e servizi utilizzate da ricercatori o imprese per attività di ricerca e innovazione e comprendono: grandi attrezzature scientifiche, archivi, database, oltre che le tecnologie ICT (software, super calcolatori...). Le IR possono quindi essere localizzate in un solo luogo, distribuite, fisse, mobili o virtuali e possono essere utilizzate anche per attività legate all'istruzione e a servizi pubblici.
- Le IR sono fondamentali per la competitività oltre e per l'innovazione scientifica dell'Europa.
- Il work programme di ERI finanzia attività votate all'incremento del potenziale innovativo delle infrastrutture di ricerca, rafforzandone i partenariati con l'industria, aprendole all'uso da parte dei ricercatori industriali, promuovendo il trasferimento di conoscenza, ecc.



Synchrotron SOLEIL – IPANEMA; Archives of the British Museums; PRACE Partnership for Advanced Computing in Europe; Polar and Marine Research Vessel; Radioastronomical facilities



ERI – WP 2014/2015

Calls

1. SVILUPPO DI NUOVE INFRASTRUTTURE A LIVELLO MONDIALE
2. INTEGRAZIONE E APERTURA DELLE INFRASTRUTTURE DI INTERESSE PANEUROPEO
3. INFRASTRUTTURE INFORMATICHE E DI COMUNICAZIONE
4. SUPPORTO ALL'INNOVAZIONE, RISORSE UMANE, STRATEGIA E COOPERAZIONE INTERNAZIONALE



Call 1 -SVILUPPO DI NUOVE INFRASTRUTTURE A LIVELLO MONDIALE

Questa linea del Programma ha come obiettivo sostenere le azioni relative alla preparazione, l'implementazione e il funzionamento delle Infrastrutture di Ricerca ESFRI e globali. Le azioni finanziate in questa call sono:

Design Phase	ESFRI Preparatory Phase	ESFRI Implementation Phase	Cluster di IR
Lo scopo è di realizzare uno "studio" tecnico, legale e concettuale per la fattibilità di nuove IR che abbiano una chiara dimensione e interesse europei e grado di maturità tale da rappresentare la base per le future ed eccellenti IR Europee e mondiali.	Lo scopo è di supportare il passaggio delle IR identificate nella roadmap ESFRI al livello legale, finanziario e tecnico necessario per la costruzione dell'IR stessa.	Il WP2014-2015 è aperto alle sole IR identificate dall'ESFRI che richiedano uno specifico supporto per completare o iniziare la fase di costruzione.	Lo scopo è di supportare il coordinamento e le strategie tra i progetti ESFRI e altre iniziative legate alle IR (ERIC, Attività integrate) in modo da ottimizzarne l'implementazione, definire l'armonizzazione delle attività, l'integrazione e l'interoperabilità di dati, applicazioni e servizi.



Call 2:INTEGRAZIONE E APERTURA DELLE INFRASTRUTTURE DI INTERESSE PANEUROPEO

Quest'azione supporta l'apertura e l'integrazione delle IR nazionali e regionali ai ricercatori e alle imprese europei per ottimizzarne l'uso e lo sviluppo congiunto. Le attività integrate si articolano su 7 Panel tematici:

- Biological and Medical Sciences
- Energy
- Environmental and Earth Sciences
- Mathematics and ICT
- Engineering, Material Sciences, and Analytical facilities
- Physical Sciences
- Social Sciences and Humanities

e prevedono l'integrazione di 3 diverse attività:

- Coordinamento e networking: cooperazione tra le diverse IR e attori di interesse (Stati Membri, fondi strutturali...)
- Accesso transnazionale: alle Infrastrutture da parte di ricercatori e imprese per realizzare una ricerca Indipendente)
- Attività di ricerca congiunta: finalizzata al miglioramento delle stesse infrastrutture)



CALL 3: INFRASTRUTTURE INFORMATICHE E DI COMUNICAZIONE

Questa parte raccoglie tutte le attività relative allo sviluppo, la distribuzione e l'utilizzo delle cosiddette e -infrastructures con il fine di garantire una leadership a livello mondiale in materia di networking, informatica e dati scientifici con l'obiettivo di creare entro il 2020 uno spazio europeo unico e aperto alla ricerca online, legata alle seguenti aree:

- Infrastrutture grid e cloud;
- Infrastrutture di supercomputing;
- Infrastrutture software di applicazione, simulazione, visualizzazione, strumenti di comunicazione;
- Raccolta dati;
- Rete GEANT;
- Comunità virtuali di ricerca.



CALL 4: SUPPORTO ALL'INNOVAZIONE, RISORSE UMANE, STRATEGIA E COOPERAZIONE INTERNAZIONALE

Questa linea di azione ha come obiettivo la promozione del potenziale di innovazione e lo sviluppo delle risorse umane delle Infrastrutture di Ricerca. Cerca inoltre di rafforzare la politica europea per le Infrastrutture di Ricerca e la cooperazione internazionale.

Questi obiettivi si raggiungeranno tramite le seguenti attività:

- Misure di supporto all'innovazione: pre-commercial e innovative procurement,
- Stimolo all'utilizzo delle infrastrutture di ricerca da parte dell'industria;
- La formazione di gestori e operatori di infrastrutture scientifiche, lo scambio di personale e di buone pratiche;
- La promozione della cooperazione tra le infrastrutture europee e di Paesi Terzi



DEADLINE

<p><u>Call 1: Developing new world-class research infrastructures</u></p>	<p><u>02/09/2014</u></p>
<p>INFRADEV-1-2014 and INFRADEV-4-2014/2015</p>	
<p>INFRADEV-2-2015 and INFRADEV-3-2015</p>	<p><u>14/01/2015</u></p>
<p><u>Call 2: Integrating and opening research infrastructures of European interest</u></p>	<p><u>2/09/2014</u></p>



Call 3: e-Infrastructures

EINFRA-2-2014	15/04/2014 at 17.00.00 Brussels time
EINFRA-1-2014, EINFRA-3-2014, EINFRA-4-2014, EINFRA-6-2014, EINFRA-7-2014 and EINFRA-8-2014	02/09/2014 at 17.00.00 Brussels time
EINFRA-5-2015 and EINFRA-9-2015	[14/01/2015 at 17.00.00 Brussels time]

Call 4: Support to Innovation, Human resources, Policy and International cooperation

INFRASUPP-8-2014	14/05/2014 at 17.00.00 Brussels time
INFRASUPP-1-2014, INFRASUPP-3-2014, INFRASUPP-5-2014, INFRASUPP-6-2014 and INFRASUPP-7-2014	02/09/2014 at 17.00.00 Brussels time
INFRASUPP-2-2015 and INFRASUPP-4-2015	[14/01/2015 at 17.00.00 Brussels time]



2° PILLAR

INDUSTRIAL LEADERSHIP

APPRE





APPRE

2° PILLAR

INDUSTRIAL LEADERSHIP



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

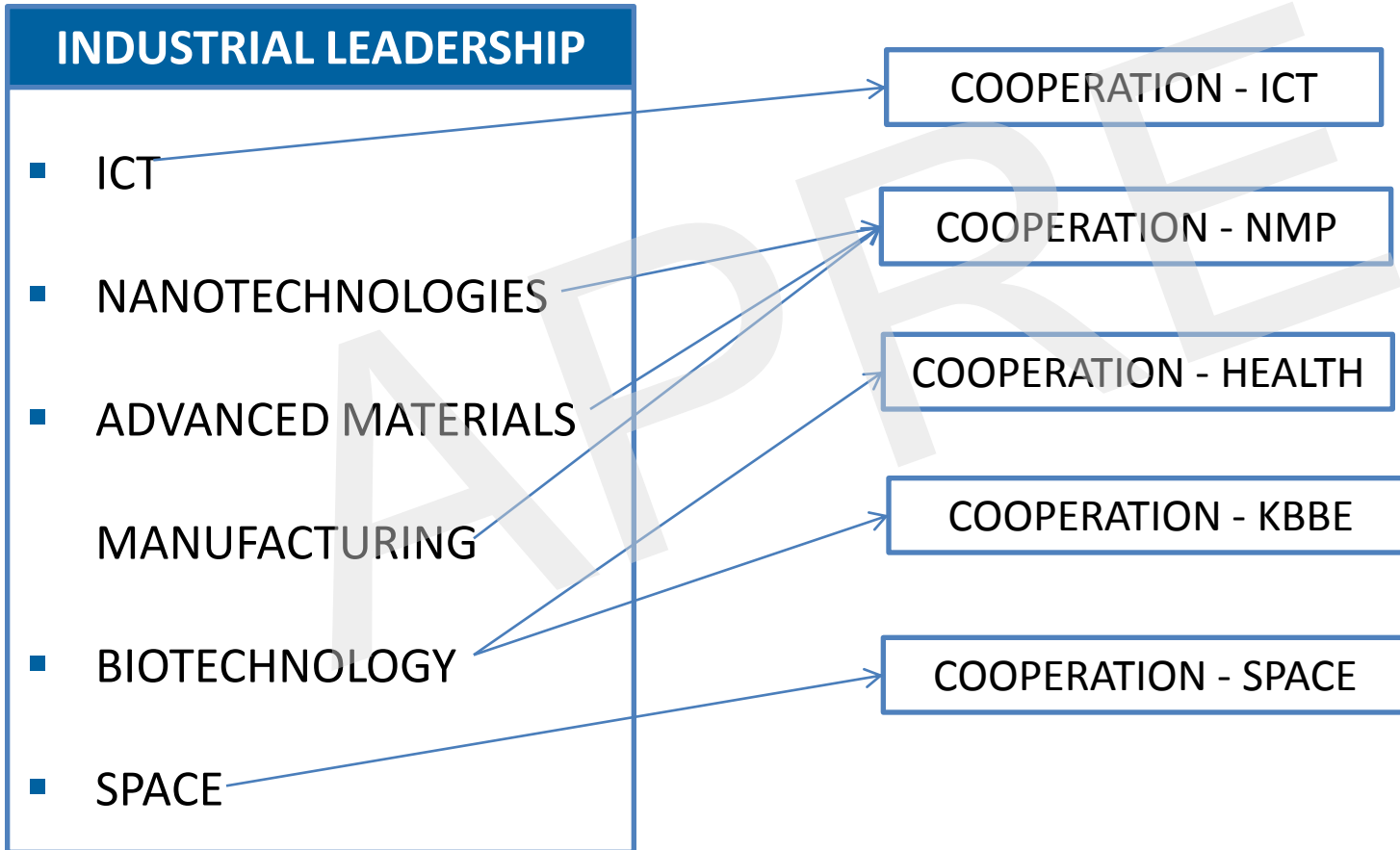
Science with and for society

Joint Research Center (JRC)



H2020

FP7



Industrial Leadership/1

Budget proposto (milioni di €)



15.507 M €

	EC	EP	Compromise - current -
Leadership in enabling and industrial technologies (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)	15.580	13.781	13.557
Access to risk finance Leveraging private finance and venture capital for research and innovation	4.000	3.538	2.842
Innovation in SMEs Fostering all forms of innovation in all types of SMEs	700	619	616

Industrial Leadership/2

Per incoraggiare investimenti in R&I in Europa, promovendo alcune priorità per ogni forma di business

- **Leadership in enabling and industrial technologies** - soprattutto Key enabling technologies (Information and Communication Technologies – ICT; Nanotechnologies, Advanced materials, Biotechnology, Advanced Manufacturing and Processing – NMPB; and Space
- **Access to finance** per aziende innovative, strumenti finanziari in partenariato con l'European Investment Bank; Debt instrument & Equity instrument
- **Innovation in SME**
Support to innovative SMEs

Industrial Leadership/2

Razionale:

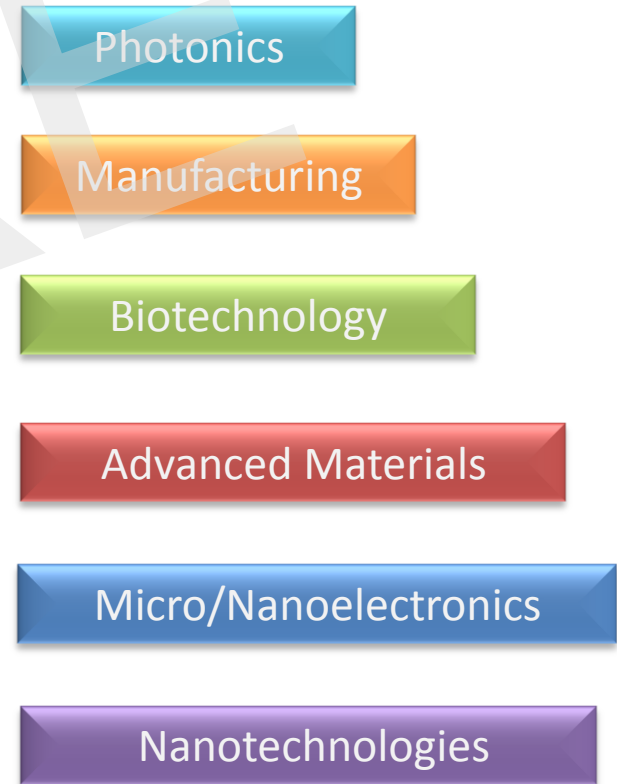
- Gli investimenti strategici nelle tecnologie-chiave (es. tecnologie industriali avanzate, microelettronica) rafforzano l'innovazione nei settori già maturi e in quelli emergenti
- L'Europa ha bisogno di attrarre ulteriori investimenti privati in ricerca e innovazione
- L'Europa necessita di un numero maggiore di PMI innovative capaci di stimolare la crescita e creare posti di lavoro

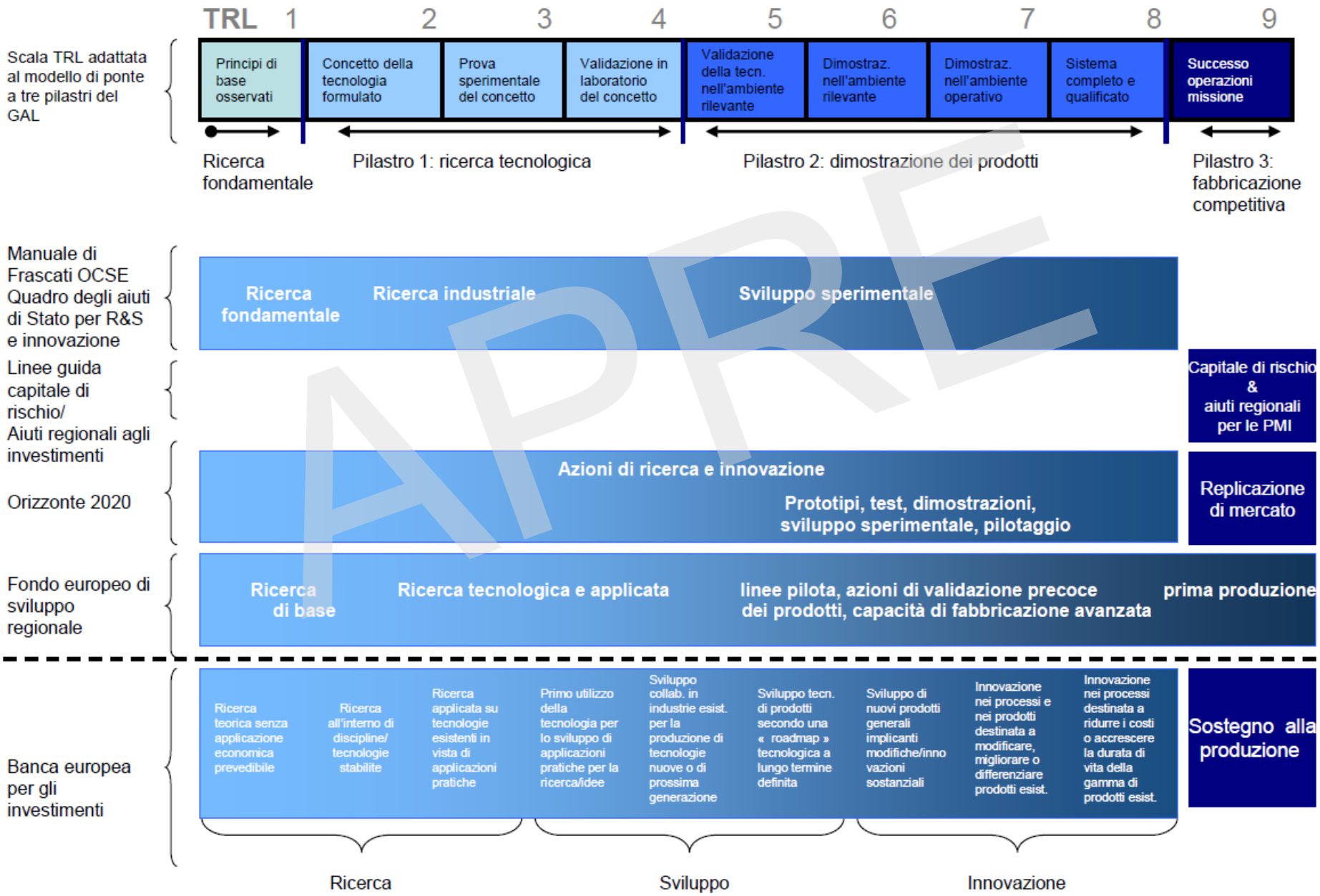
COSA SONO LE KET?

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)





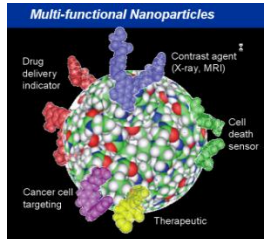
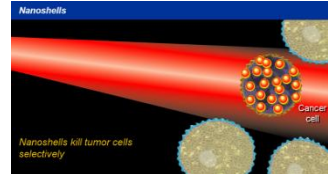
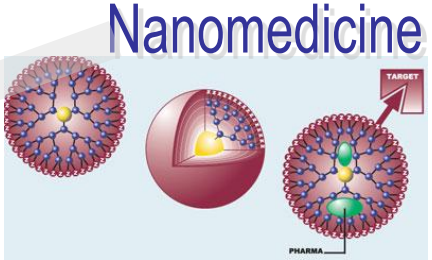
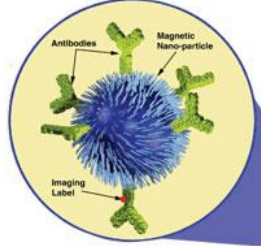
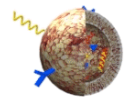
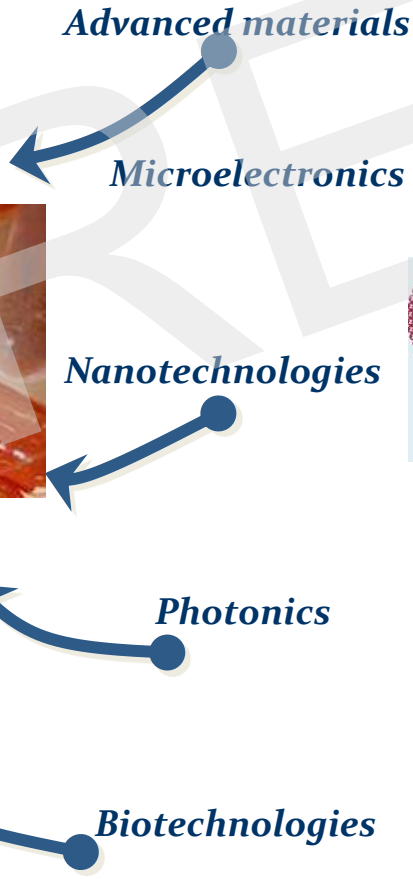
Example - combining several KETs for advanced products

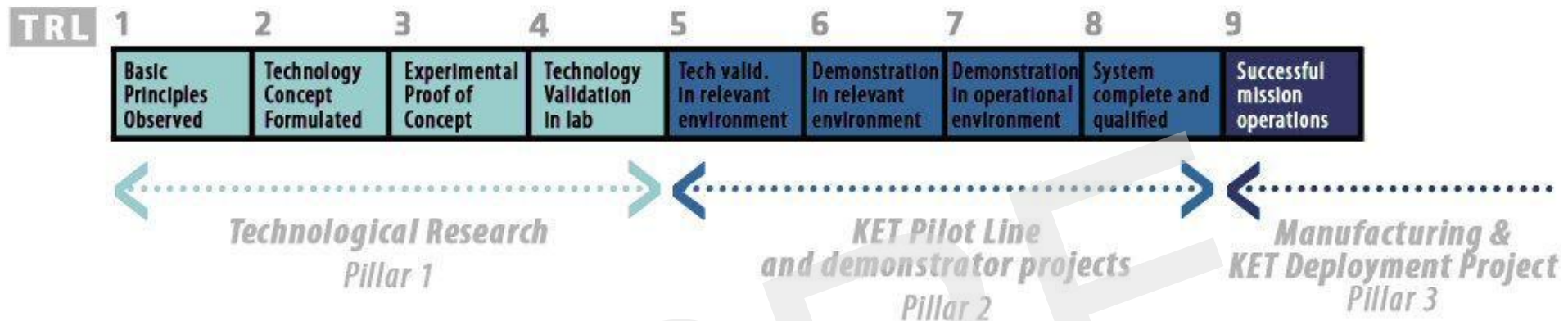
Societal Challenge

Health



New nanotechnology-based diagnostics
New target drug delivery and release
Regenerative medicine





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)

TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

NMP 11 – 2015: Nanomedicine therapy for cancer

Specific challenge: Promising pre-clinical nano-medicine proof-of-concepts have been developed for the therapy of cancer, but their translation into clinical therapies remains a major challenge. An important bottleneck is up-scaling under Good Manufacturing Practice (GMP) conditions for scale to the quantity ne

Scope: The aim is to t
 with pre-clinical proof
 The project shall sta
 efficacy and toxicity
 ultimately new effectiv
 important aspect is th

HORIZON 2020 – WORK PROGRAMME 2014-2015

Leadership in Enabling and Industrial Technologies

Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

nanomedicines and the quality control, taking into account GMP and medical regulatory requirements. Projects may include the later stages of pre-clinical testing and Phase 1 clinical testing, but the latter is not a requirement. Nanopharmaceuticals may be manufactured with either a top-down or a bottom-up approach, using for example self-assembling technology. Applicants must describe, according to industrial criteria, how the various barriers for advancing their new therapy to clinical application will be overcome, including technical, IPR, competitive, commercial and regulatory criteria, with efficacy and toxicity. Attention must be paid to clinical trial design and the foreseen research and commercial path to market introduction has to be well outlined.

The research is to be implemented from TRL 4/5 and target TRL 6/7. Implemented as cross-KET activities.

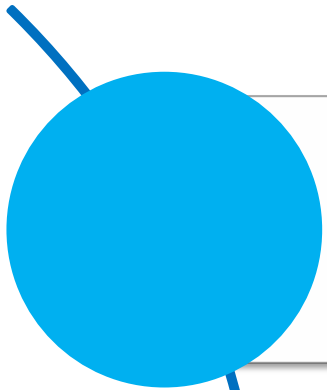
The Commission considers that proposals requesting a contribution from the EU between EUR 6 and 9 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact:

- Potential major improvement in clinical cancer therapy, thereby providing enhanced quality of life for patients (taking gender and other diversities into account).
- Potential reduced direct and indirect healthcare costs linked to the disease and its treatment.
- Accelerated introduction of new nanotechnology enabled cancer therapy, through robust manufacturing and quality control procedures for new nanotechnology enabled drugs.

Type of action: Research & Innovation Actions

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



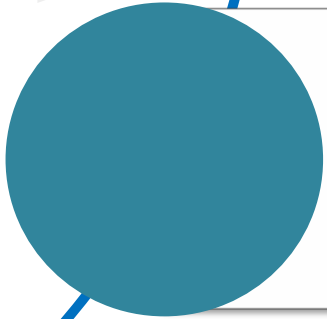
Nanotechnologies

Next generation nanomaterials, -devices, -nanosystems
 Ensuring safe development & application + societal dimension
 Efficient synthesis and manufacturing of nanomaterials, - systems
 Developing capacity-enhancing techniques, measuring methods



Advanced Materials

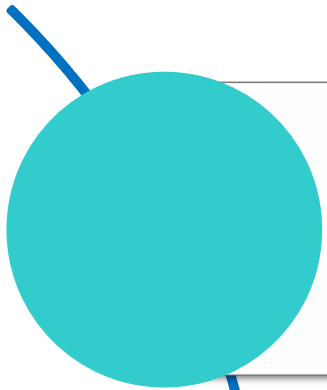
Materials development & transformation
 Mgmt of materials components
 Materials for sustainable and for creative industries
 Metrology, characterisation, standardisation, quality control
 Optimisation of the use / substitution of materials



Advanced Manufacturing & Processing

Factories of the future
 Energy-efficient buildings
 Sustainable technologies in energy-intensive process industries
 New, sustainable business models

* Area attività: Proposta Commissione Europea



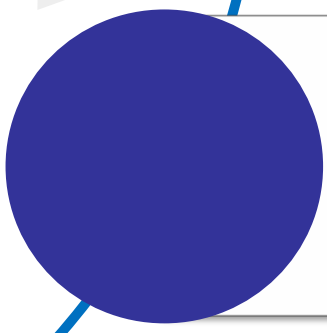
ICT

- New generation components & systems
- Next generation computing
- Future internet
- Content technologies & information mgmt
- Advanced interfaces and robots



Biotechnology

- Boosting cutting-edge biotech as future innovation drivers
- Biotechnology-based industrial processes
- Innovative and competitive platform technologies



Space

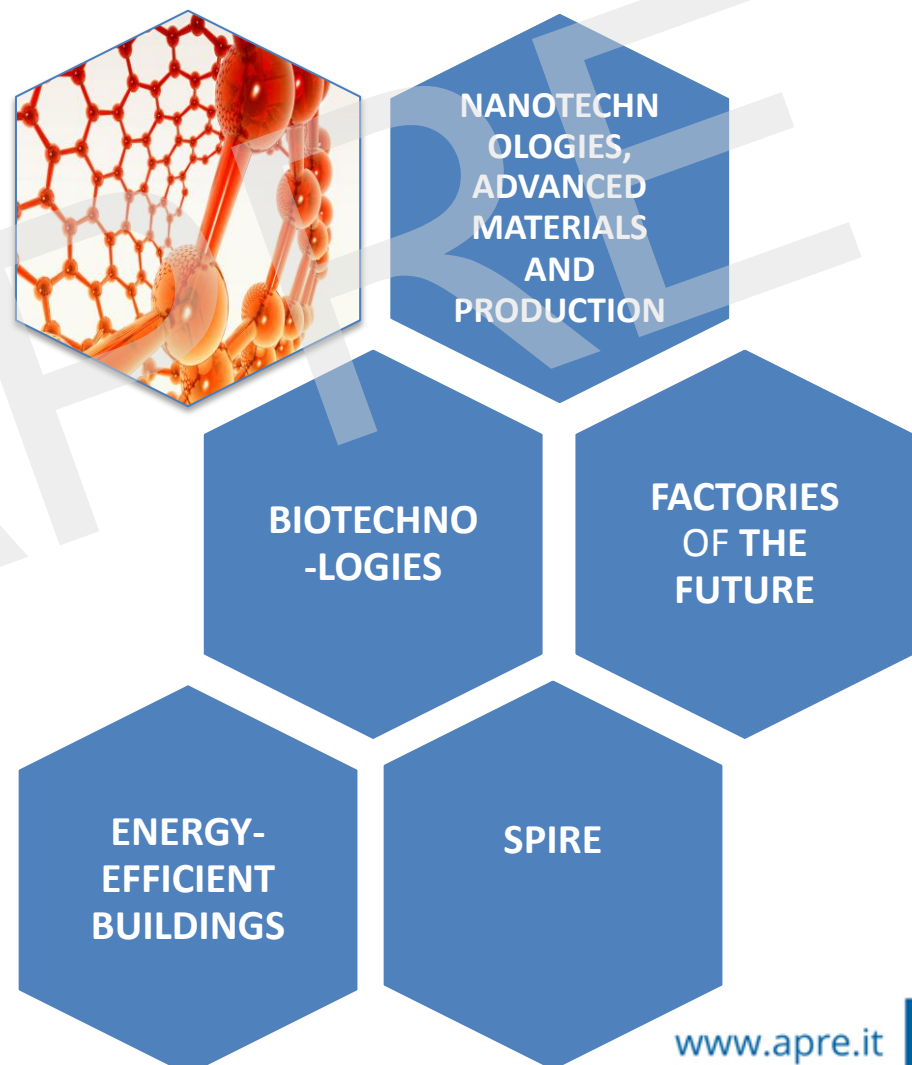
- Enabling European competitiveness & independence in space activities
- Enabling future space missions
- Enabling exploitation of space data
- Enable European participation in global space endeavours

* Area attività: Proposta Commissione Europea



NMPB - Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing

**Calls
2014/2015**



DEADLINE

CALL1:
**NANOTECHNOLOGIES,
 ADVANCED MATERIALS
 AND PRODUCTION**

Topic identifier	Deadline	Deadline
NMP 1-2014 NMP 4-2014 NMP 5-2014 NMP 8-2014	Single stage 06/05/2014	
NMP 9-2014 NMP 27-2014 NMP 31-2014 NMP 33-2014 NMP 34-2014 NMP 36-2014 NMP 37-2014 NMP 38-2014 NMP 39-2014		
NMP 10-2014 NMP 13-2014 NMP 18-2014 NMP 20-2014 NMP 21-2014 NMP 26-2014 NMP 28-2014 NMP 35-2014	First stage 06/05/2014 Second stage 07/10/2014	
NMP 2-2015 NMP 3-2015 NMP 6-2015 NMP 7-2015 NMP 32-2015 NMP 38-2015		Single stage 26/03/2015



DEADLINE

CALL2 BIOTECHNOLOGIES

Topic identifier	2014	2015
BIOTEC 1 – 2014 BIOTEC 3 – 2014 BIOTEC 4 – 2014	First stage 12/03/2014 Second stage 26/06/2014	
BIOTEC 2 – 2015 BIOTEC 6 – 2015		First stage 24/02/2015 Second stage 11/06/2015

Topic identifier	Deadline
FoF 1-2014 FoF 2-2014 FoF 3-2014 FoF 4-2014 FoF 5-2014 FoF 6-2014 FoF 7-2014	20/03/2014
FoF 8-2015 FoF 9-2015 FoF 10-2015 FoF 11-2015 FoF 12-2015 FoF 13-2015 FoF 14-2015	09/12/2014

CALL3: FACTORIES OF THE FUTURE



DEADLINE

CALL4: ENERGY-EFFICIENT BUILDINGS

Topic identifier	Deadline	Deadline
EeB 1-2014 EeB 2-2014 EeB 3-2014 EeB 4-2014	20/03/2014	
EeB 5-2015 EeB 6-2015 EeB 7-2015 EeB 8-2015		09/12/2014

Topic identifier	Deadline	Deadline
SPIRE 1-2014 SPIRE 2-2014 SPIRE 3-2014 SPIRE 4-2014	20/03/2014	
SPIRE 5-2015 SPIRE 6-2015 SPIRE 7-2015 SPIRE 8-2015		09/12/2014

CALL5: SPIRE



ICT – LEIT calls

1. Components and systems
2. Advanced Computing
3. Future Internet
4. Content technologies and information management
5. Robotics
6. Key Enabling Technologies: Micro- nano-electronics and photonics

+ Factory of the Future cPPP

+ International Cooperation actions (EU-Brazil, EU-Japan)

ICT Cross cutting activities:

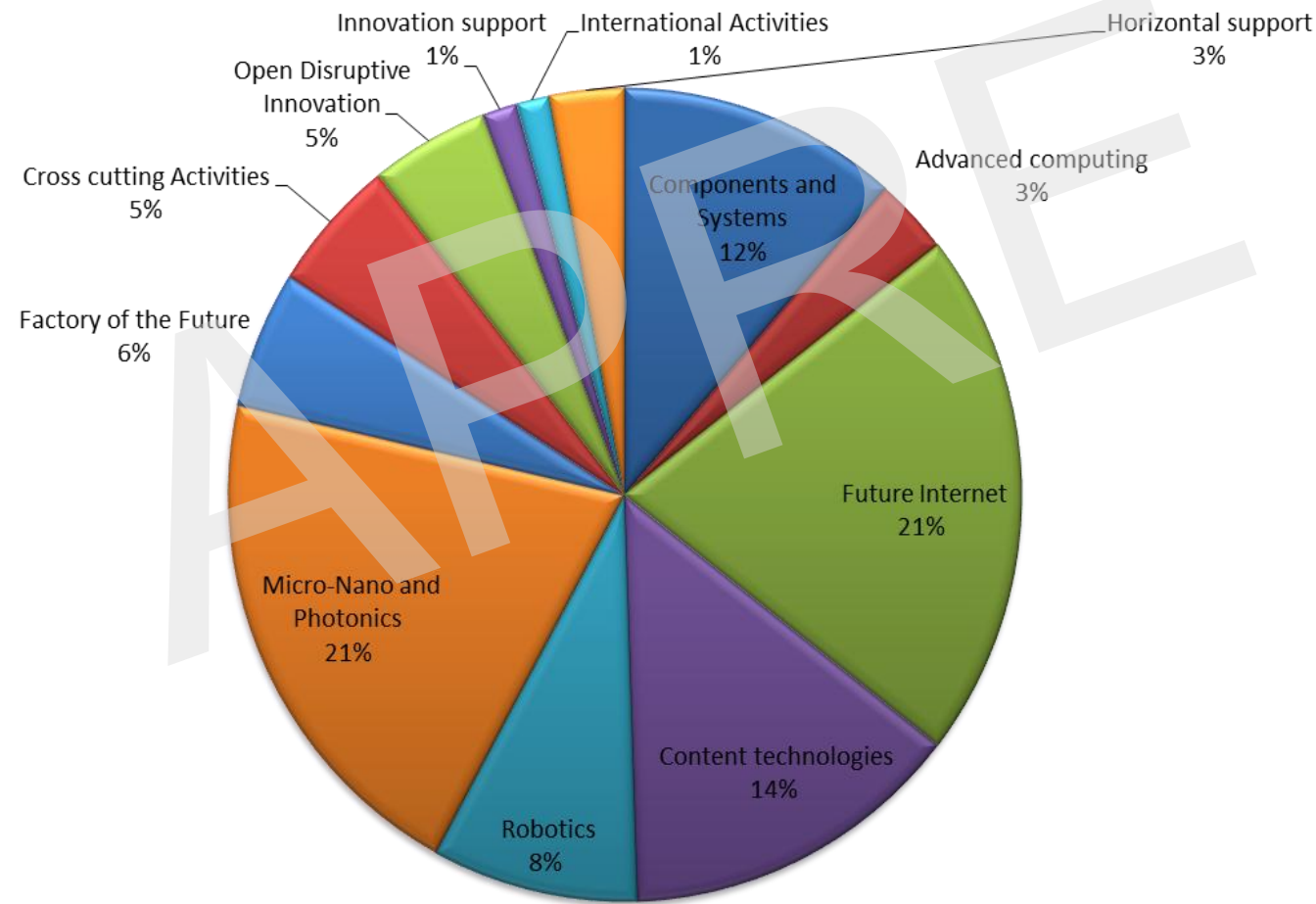
- Internet of Things
- Human-centric Digital Age
- Cybersecurity
- Support to NCPs

ICT Innovation actions

- Access to finance
- Innovation policy support
- Open disruptive innovation scheme (SME instrument)



ICT – LEIT calls





ICT – DEADLINE

H2020-ICT-2014

Publication date: 11 December 2013

Opening: 11 December 2013 except topic ICT37 that opens on 01/03/2014 for phase 1 and phase2 (SME INSTRUMENT) and topic ICT14 that opens on 15 July 2014.

Deadline(s):

24 April 2014 (All Topics except ICT14.a, ICT14.b, ICT14.c, ICT35)

25 November 2014 (ICT14a, ICT14.b, ICT14.c)

Overall indicative budget: EUR 703.5 million

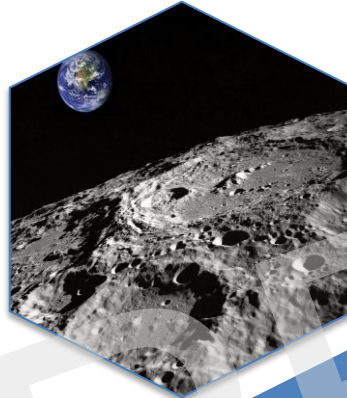
Deadline(s): at 17.00.00 Brussels time on the following dates



SPACE

CALLS

2014/2015



APPLICA-
TIONS IN
SATELLITE
NAVIGATION
- GALILEO

EARTH
OBSERVA-
TION

PROTECTION
OF
EUROPEAN
ASSETS IN
AND FROM
SPACE”

COMPETITIV-
VENESS OF
THE
EUROPEAN
SPACE SECTOR:
TECHNOLOGY
AND
SCIENCE



SPIRE



DEADLINES SPACE

<u>CALL 1: APPLICATIONS IN SATELLITE NAVIGATION - GALILEO – 2014 & 2015</u>	GALILEO 1, 2, 3, 4 (2014)	03-04-2014 at 17.00.00 Brussels time
	GALILEO 1, 2, 3 (2015)	[04-02-2015]
<u>CALL 2: EARTH OBSERVATION</u>	EO 1,2,3	26-03.2014 at 17.00.00 Brussels time
<u>CALL 3: PROTECTION OF EUROPEAN ASSETS IN AND FROM SPACE</u>	Protect 1,2	26-03.2014 at 17.00.00 Brussels time
<u>CALL 4: COMPETITIVENESS OF THE EUROPEAN SPACE SECTOR: TECHNOLOGY AND SCIENCE</u>	COMPET 1,2,3,4,5,6,7,8,9,10,11	26-03.2014 at 17.00.00 Brussels time



Access to Finance

- Per aziende innovative
- Strumenti finanziari in partenariato con l'European Investment Bank
- Debt instrument & Equity instrument

€ 2.590 M €

Innovation in SME

- Eurostars
- EEN
- Azioni di coordinamento e supporto

€ 561 M €



ACCESS TO FINANCE

Programmi/Strumenti 2007-2013

CIP-Access to Finance (1,1bn)

SMEG (Debt)

GIF 1 (Equity)

GIF 2 (Equity)

Budget

550M

550M

Modalità

Possono essere garanzie dirette o contro garanzie, fino al 50% dell'impegno dell'intermediario. Per prestiti a non meno di 12 mesi, preferibilmente superiori ai 18 mesi. Maturità della garanzia: 10 anni.

La garanzia è gratis se l'IF dimostra di finanziare le PMI a condizioni più vantaggiose. NB Lo stesso prodotto può essere usato anche per microcredito e per equity o mezzanini con un importo massimo di 500.000 Euro.

Capitale di rischio per start up innovative. Il FEI interviene dal 10 al 25% del fondo di VC dell'intermediario finanziario, fino al 50% in alcuni casi particolari.

Capitale di rischio per PMI ad alto potenziale di crescita, nella loro fase di espansione. Il FEI interviene dal 7,5 al 15% del fondo di VC dell'intermediario finanziario, fino al 50% in alcuni casi particolari. NB In media il FEI

Utilizzo

Adoperato da una lunga lista di confidi, più o meno attivi. Quelli artigiani hanno sempre trovato difficoltà per la loro bassa capitalizzazione.

Varie società di gestione di Fondi

Varie società di gestione di Fondi

Programmi/Strumenti 2014-2020

COSME - Access to Finance (1,450bn)

Loan
Guarantee
Facility (Debt)

v. Horizon
2020

Equity facility for
Growth (EFG)

Budget

750M€

210M€

700M€

Modalità

Garanzie per prestiti a PMI per investimenti fino a 150.000€ (minimo 12 mesi), e cartolarizzazione dei portafogli PMI, senza limite di ammontare, da negoziare con l'istituto che ha concesso il credito.

-

Espansione e crescita delle PMI, cumulabile con Hor2020. In questo caso EFG può finanziare al massimo il 20% del finanziamento UE.

ACCESS TO FINANCE

Programmi/Strumenti 2007-2013

FP7 Ricerca

RSI (Iniziativa pilota Risk Sharing)

Nessun
program
ma

Budget

120M

-

Modalità

Azione pilota per preparare la nuova facility 2014-2020, gestita dal FEI attraverso intermediari finanziari chiamati a rispondere con Manifestazione di interesse.
E' una garanzia diretta (o contro garanzia a partire da Gennaio 2013) prestata dal Fondo fino al 50% a banche commerciali e "promozionali", e a confidi. Il target è ovviamente per PMI ad alto potenziale di innovazione con oneri amministrativi e lungaggini ridotte al minimo. La garanzia è soggetta ad una fee (0,25% fino a 3M, 1% sopra ai 3M) ed è senza cap.
L'approvazione dei progetti ricade interamente sull'intermediario finanziario.

-

Utilizzo

In Italia solo Banco Popolare e CR Cento.
I prestiti possono essere da 25000 a 7,5M da 2 a 7 anni. Il pilota ha lavorato con un budget di 120M per garanzia *first loss* ed ha raggiunto circa 1000 PMI. La novità (v. anche Hor2020) è nei requisiti per dimostrare di essere innovativi (ad esempio è sufficiente dimostrare di aver ricevuto delle agevolazioni fiscali per innovazioni negli ultimi due anni). Attualmente il Fondo è stato rifinanziato con 150M per ampliare la platea delle banche e facilitare la controgaranzia ai confidi. La garanzia FEI è cumulabile con altre a patto che l'IF copra almeno il 20% direttamente.

-

Programmi/Strumenti 2014-2020

Horizon 2020 (Access to Finance) (3,768 bn)

SME & Small Midcaps facility

Equity Facility for R&I
(Ex GIF1)

Budget* (Nessun breakdown Equity/Debt)

1/3

Modalità **

Garanzie su prestiti per PMI e piccole mid caps ad alta intensità di Ricerca ed innovazione. (requisiti più morbidi che in passato) per finanziamenti sopra i 150.000E.
Vi sarà un elemento basato sulla domanda (first come first served) ed una componente mirata su settori chiave specifici.

Finanzia seed capital, start up, la prima fase di un venture capital. Possibilità di interconnessione con COSME fino al 20% nella prima fase di crescita (multistage funds)

* Budget 2014-2020 ancora in fase di approvazione

** Modalità esecuzione programmi 2014-2020 ancora in fase di approvazione



3° PILLAR

SOCIETAL CHALLENGES



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
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 - Ensuring access to world-class facilities

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- **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)



H2020

FP7

SOCIETAL CHALLENGES

- Health, Demographic Change and Wellbeing;
- Food Security, Sustainable Agriculture, Marine and Maritime Research & the Bio-economy;
- Secure, Clean and Efficient Energy;
- Smart, Green and Integrated Transport;
- Climate Action, Resource Efficiency and Raw Materials;
- Inclusive, Innovative and Reflective Societies;
- Secure Societies.

COOPERATION

HEALTH

KBBE

ENERGY

TRANSPORT

ENVIRONMENT

SSH

SECURITY

INTERNATIONAL COOPERATION

Societal challenges/1

Budget proposto (milioni di €)



29.679 M €

	EC	EP	Compromise - Current -
Health, demographic change and wellbeing	9.077	8.033	7.472
Food security, sustainable agriculture, marine and maritime research & the bioeconomy	4.694	4.152	3.851
Secure, clean and efficient energy	6.537	5.782	5.931
Smart, green and integrated transport	7.690	6.802	6.339
Climate action, resource efficiency and raw materials	3.573	3.160	3.081
Inclusive, Innovative and Reflective Societies			1.309
Secure Societies	4.317	3.819	1.695



Societal challenges/2

Razionale:

- Le preoccupazioni condivise dai cittadini e dalla società e gli obiettivi politici dell'agenda europea (clima, ambiente, energia, trasporti, ecc) non possono essere affrontati o raggiunti senza innovazione
- Le soluzioni brillanti derivano da collaborazioni multidisciplinari, dove giocano un ruolo di primo piano anche le scienze sociali e umane
- Le soluzioni promettenti devono essere testate, dimostrate e progressivamente sviluppate



1. Health, Demographic Change And Wellbeing

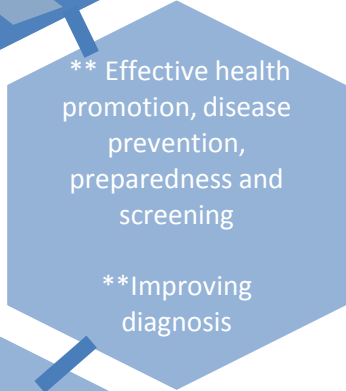


- 1.1. Understanding health, wellbeing and disease
- 1.2. Preventing disease
- 1.3. Treating and managing disease
- 1.4. Active ageing and self-management of health
- 1.5. Methods and data
- 1.6. Health care provision and integrated care



SC1 Health, Demographic Change And Wellbeing

**CALLS -
 FOCUS AREA
 WP 2014 - 15**



DEADLINES

CALL PERSONA-LISING HEALTH AND CARE

PHC 1 - 2014 PHC 5 - 2014 PHC 6 - 2014 PHC 10 - 2014 PHC13 - 2014 PHC 17 - 2014 PHC 23 - 2014 PHC 32 - 2014	Stage 1 – 11 th March 2014 at 17.00.00 Brussels time	Stage 2 – 19 th August 2014 at 17.00.00 Brussels time		
PHC 7 - 2014 PHC 8 - 2014 PHC 15 – 2014/2015 PHC 19 - 2014 PHC 20 - 2014 PHC 26 – 2014 PHC 31 - 2014 PHC 34 - 2014	Single stage – 15 th April 2014 at 17.00.00 Brussels time			
PHC 12 - 2014/2015 - Open call cut- off dates - Open from 01/03/2014 for phase 1 and phase 2 ²⁴	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}

CO-ORDINATION ACTIVITIES: 15/04/2014

2. Food Security, Sustainable Agriculture, Marine And Maritime Research And The Bio-economy



2.1. Sustainable agriculture & forestry

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

2.3 Unlocking the potential of aquatic living resources

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

SC2 - European Bioeconomy Challenges:

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

FOCUS AREA

2014 -2015:



Sustainable
Food
Security

Blue Growth



Innovative,
Sustainable
and Inclusive
Bioeconomy



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

3. Secure, Clean And Efficient Energy



- 3.1. Reducing energy consumption and carbon footprint by smart and sustainable use
- 3.2. Low cost, low carbon electricity supply
- 3.3. Alternative fuels and mobile energy sources
- 3.4. A single, smart European electricity grid
- 3.5. New knowledge and technologies
- 3.6. Robust decision making and public engagement
- 3.7 Market uptake of energy innovation



SC3. Secure, Clean And Efficient Energy CALLS - FOCUS AREA WP 2014 - 15



**ENERGY
EFFICIENCY**

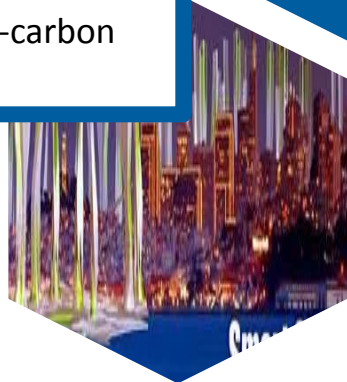
- Buildings and consumers
- Heating and cooling
- Industry and products
- Finance for sustainable energy

- Renewable electricity and heating/cooling
- Modernising the single European electricity grid
- Providing the energy system with flexibility through enhanced energy storage technologies
- Sustainable biofuels and alternative fuels for the European transport fuel mix
- Enabling the sustainable use of fossil fuels in the transition to a low-carbon economy

**COMPETITIVE
LOW – CARBON
ENERGY**



**SMART CITIES
AND
COMMUNITIES**





DEADLINES

CALL 1: ENERGY EFFICIENCY

Topic EE 1, 3, 18	20/03/2014 ⁵⁷		
Topic EE 4, 5 7-16, 19-21	05/06/2014		
Topic EE 2, 18			09/12/2014 ⁵⁸
Topic EE 5-7, 9-11, 13-17, 19-21			10/06/2015

SCC 1	07/05/2014		03/03/2015	
SCC 2, SCC 4	07/05/2014			
SCC 3, SCC 5			03/03/2015	

CALL 3: SMART CITIES AND COMMUNITIES



DEADLINES

CALL 2: COMPETITIVE LOW-CARBON ENERGY

Topic	Deadlines			
	2014		2015	
LCE 1	01/04/2014 (stage 1)	23/09/2014 (stage 2)		
LCE 2, LCE 11	01/04/2014 (stage 1)	23/09/2014 (stage 2)	03/09/2014 (stage 1)	03/03/2015 (stage 2)
LCE 3, 12	10/09/2014		03/03/2015	
LCE 4, 14	07/05/2014		03/03/2015	
LCE 5, 6			03/03/2015	
LCE 7	07/05/2014			
LCE 8, 10	07/05/2014			
LCE 9			03/03/2015	
LCE 13			05/05/2015	
LCE 15, 16	01/04/2014 (stage 1)	23/09/2014 (stage 2)		
LCE 15, 17			03/09/2014 (stage 1)	03/03/2015 (stage 2)
LCE 18 [ERA-NET]	29/04/2014		28/04/2015	
LCE 19	10/09/2014			
LCE 20	10/09/2014			
LCE 21			03/03/2015	
LCE 22	01/04/2014			



4. Smart, Green and Integrated Transport



- 4.1 Resource efficient transport that respects the environment
- 4.2. Better mobility, less congestion, more safety and security
- 4.3. Global leadership for the European transport industry
- 4.4 Socio-economic and behavioural research and forward looking activities for policy making



SC4 Smart, Green and Integrated Transport

**CALLS -
FOCUS AREA
WP 2014 - 15**



MOBILITY
FOR
GROWTH

AVIATION
RAIL
ROAD
WATERBORNE
URBAN
MOBILITY

LOGISTICS
INTELLIGENT
TRANSPORT
SYSTEMS
INFRASTRUCTURE
SSH

GREEN
VEHICLES

SMALL
BUSINESS
AND FAST
TRACK
INNOVATION
FOR
TRANSPORT



DEADLINES

CALL 1: MOBILITY FOR GROWTH

MG.1.4, MG.1.6, MG.1.7, MG.1.8(CSA part) MG.9.2, MG.9.3, MG.9.4, MG.9.7	Single stage 27/03/2014 at 17.00.00 Brussels time	
MG.7.2(CSA part) MG.8.1(CSA part), MG.8.2(CSA part) MG.9.6		Single stage 28/08/2014 at 17.00.00 Brussels time
MG.1.8(RIA part) MG.9.1, MG.9.5	Single stage [31/03/2015 at 17.00.00 Brussels time]	
MG.5.5(CSA part) MG.8.3, MG.8.4(CSA part)		Single stage [27/08/2015 at 17.00.00 Brussels time]
MG.1.1, MG.1.3, MG.1.5 MG.2.1, MG.2.2, MG.2.3 MG.3.1, MG.3.2, MG.3.3, MG.3.4, MG.3.5 MG.4.1, MG.4.2, MG.4.4 MG.5.1, MG.5.2, MG.5.3 MG.6.1, MG.6.2 MG.7.1, MG.7.2(RIA part) MG.8.1(RIA part), MG.8.2(RIA part)	First stage 18/03/2014 at 17.00.00 Brussels time	Second stage 28/08/2014 at 17.00.00 Brussels time
MG.1.2 MG.3.6	First stage [31/03/2015 at 17.00.00 Brussels time]	Second stage [27/08/2015 at 17.00.00 Brussels time]
MG.4.3 MG.5.4, MG.5.5(RIA part) MG.6.3 MG.8.4(RIA part)		

Topics	
GV.1, GV.2, GV.3, GV.4, GV.5, GV.7	Single stage 28/08/2014 at 17.00.00 Brussels time
GV.6, GV.8	Single stage [27/08/2015 at 17.00.00 Brussels time]

CALL 2 GREEN VEHICLES



5. Climate Action, Resource Efficiency and Raw Materials



5.1. Fighting and adapting to climate change

5.2. Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems

5.3. Ensuring sustainable supply of non-energy & non-agricultural raw materials

5.4. Enabling the transition towards a green economy and society through eco-innovation

5.5. Developing comprehensive and sustained global environmental observation and information systems



SC5. Climate Action, Resource Efficiency and Raw Materials CALLS - FOCUS AREA WP 2014 - 15



- Fighting and adapting to climate change
- Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystem
- Ensuring the sustainable supply of non-energy and non-agricultural raw materials
- Enabling the transition towards a green economy through eco-innovation
- Developing comprehensive and sustained global environmental observation and information systems
- Cultural Heritage



DEADLINES

CALL 1: WASTE

WASTE-3-2014, WASTE-4a-2014, WASTE-4b-2014, WASTE-4c-2014, WASTE-5-2014	08/04/2014 at 17.00.00 Brussels time	
WASTE-1-2014, WASTE-2-2014	First stage 08/04/2014 at 17.00.00 Brussels time	Second stage 16/09/2014 at 17.00.00 Brussels time
WASTE-4d-2015	[10/03/2015 at 17.00.00 Brussels time]	
WASTE-6-2015, WASTE-7-2015	First stage 16/10/2014 at 17.00.00 Brussels time	Second stage [10/03/2015 at 17.00.00 Brussels time]

WATER-3-2014, WATER-4a-2014, WATER-5a-2014	08/04/2014 at 17.00.00 Brussels time	
WATER-1-2014, WATER-2a-2014	First stage 08/04/2014 at 17.00.00 Brussels time	Second stage 16/09/2014 at 17.00.00 Brussels time
WATER-3-2015 WATER-4b-2015, WATER-5b-2015	[10/03/2015 at 17.00.00 Brussels time]	
WATER-1-2015, WATER-2b-2015, WATER-5c-2015	First stage 16/10/2014 at 17.00.00 Brussels time	Second stage [10/03/2015 at 17.00.00 Brussels time]

CALL 2 : WATER

**CALL 3: Growing
a Low Carbon,
Resource
Efficient
Economy with a
Sustainable
Supply of Raw
Materials**

SC5-5a-2014, SC5-8-2014, SC5-9-2014, SC5-10a-2014, SC5-10b-2014, SC5-11a-2014, SC5-11b-2014, SC5-12a-2014 SC5-13a-2014, SC5-13b-2014, SC5-14-2014, SC5-18a-2014, SC5-19a-2014	08/04/2014 at 17.00.00 Brussels time	
SC5-1-2014, SC5-3-2014, SC5-6-2014, SC5-16-2014	First stage 08/04/2014 at 17.00.00 Brussels time	Second stage 16/09/2014 at 17.00.00 Brussels time
SC5-2-2015, SC5-5b-2015, SC5-10c-2015, SC5-11c-2015, SC5-11d-2015, SC5-11e-2015, SC5-12b-2015, SC5-13c-2015, SC5-13d-2015, SC5-13e-2015, SC5-13f-2015, SC5-15-2015, SC5-18b-2015, SC5-19b-2015	[10/03/2015 at 17.00.00 Brussels time]	
SC5-4-2015, SC5-7-2015, SC5-17-2015	First stage 16/10/2014 at 17.00.00 Brussels time	Second stage [10/03/2015 at 17.00.00 Brussels time]

6. Europe in a changing world – Inclusive, Innovative and Reflective societies



- 6.1. Inclusive societies
- 6.2. Innovative societies
- 6.3 Make use of the innovative, creative and productive potential of all generations
- 6.4 Ensure societal engagement in research and innovation
- 6.5 Promote coherent and effective cooperation with third countries
- 6.6 Reflective Societies – cultural heritage and European identity



SC6 Europe in a changing world – Inclusive, Innovative and Reflective societies

**CALLS -
FOCUS AREA
WP 2014 - 15**



**OVERCOMING
THE CRISIS:
NEW IDEAS,
STRATEGIES AND
GOVERNANCE
STRUCTURES FOR
EU**

**YOUNG
GENERATION
IN AN
INNOVATIVE
INCLUSIVE AND
SUSTAINABLE
EUROPE**

**EUROPE AS
GLOBAL
ACTOR**

**NEW FORMS
OF
INNOVATION**

**REFLECTIVE
SOCIETIES:
CULTURAL
HERITAGE AND
EUROPEAN
IDENTITIES**



DEADLINES

CALL 1: OVERCOMING THE CRISIS

EURO-1-2014	03/06/2014 at 17.00.00 Brussels time
EURO-2-2014	03/06/2014 at 17.00.00 Brussels time
EURO-3-2014	03/06/2014 at 17.00.00 Brussels time
EURO-4-2014	03/06/2014 at 17.00.00 Brussels time
EURO-5-2015	[07/01/2015 at 17.00.00 Brussels time]
EURO-6-2015	[21/04/2015 at 17.00.00 Brussels time]

CALL 2: YOUNG GENERATION

YOUNG-1-2014	03/06/2014 at 17.00.00 Brussels time
YOUNG-2-2014	03/06/2014 at 17.00.00 Brussels time
YOUNG-3-2015	[07/01/2015 at 17.00.00 Brussels time]
YOUNG-4-2015	[07/01/2015 at 17.00.00 Brussels time]
YOUNG-5-2014	03/06/2014 at 17.00.00 Brussels time



DEADLINES

CALL 3 - REFLECTIVE SOCIETIES

REFLECTIVE-1-2014	03/06/2014 at 17.00.00 Brussels time
REFLECTIVE-2-2015	[07/01/2015 at 17.00.00 Brussels time]
REFLECTIVE-3-2015	[07/01/2015 at 17.00.00 Brussels time]
REFLECTIVE-4-2015	[07/01/2015 at 17.00.00 Brussels time]
REFLECTIVE-5-2015	[07/01/2015 at 17.00.00 Brussels time]
REFLECTIVE-6-2015	[21/04/2015 at 17.00.00 Brussels time]
REFLECTIVE-7-2014	30/09/2014 at 17.00.00 Brussels time
REFLECTIVE-8-2015	[07/01/2015 at 17.00.00 Brussels time]
REFLECTIVE-9-2014	03/06/2014 at 17.00.00 Brussels time
REFLECTIVE-10-2014	03/06/2014 at 17.00.00 Brussels time



DEADLINES

CALL 4 - EUROPE AS A GLOBAL ACTOR

INT-1-2014/2015	29/04/2014 at 17.00.00 Brussels time for proposals targeting Russia and China [20/01/2015 at 17.00.00 Brussels time for proposals targeting Australia, USA, Brazil, South Africa, Ukraine]
INT-2-2014/2015	29/04/2014 at 17.00.00 Brussels time for proposals targeting Black Sea, Middle East, Africa [20/01/2015 at 17.00.00 Brussels time for proposals targeting Southern Mediterranean Neighbourhood, Eastern Partnership]
INT-3-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-4-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-5-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-6-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-7-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-8-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-9-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-10-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-11-2015	[07/01/2015 at 17.00.00 Brussels time]
INT-12-2015	[07/01/2015 at 17.00.00 Brussels time]



DEADLINES

CALL 5 - NEW FORMS OF INNOVATION

INSO-1-2014/2015	29/04/2014 at 17.00.00 Brussels time [21/04/2015 at 17.00.00 Brussels time]	
INSO-2-2014	29/04/2014 at 17.00.00 Brussels time	
INSO-3-2014	29/04/2014 at 17.00.00 Brussels time	
INSO-4-2015	[31/03/2015 at 17.00.00 Brussels time]	
INSO-5-2015	[31/03/2015 at 17.00.00 Brussels time]	
INSO-6-2014	29/04/2014 at 17.00.00 Brussels time	
INSO-7-2014	29/04/2014 at 17.00.00 Brussels time	
INSO-8-2014	29/04/2014 at 17.00.00 Brussels time	
INSO-9-2015 [SME instrument]	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]
INSO-10-2015 [SME instrument]	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]

7. Secure Societies – Protecting Freedom And Security of Europe and its Citizens



- 7.1 Fight crime, illegal trafficking and terrorism, including understanding and tackling terrorist ideas and beliefs
- 7.2 Protect and improve the resilience of critical infrastructures, supply chains and transport modes
- 7.3 Strengthen security through border management
- 7.4 Improve cyber security
- 7.5 Increase Europe's resilience to crises and disasters
- 7.6 Ensure privacy and freedom, including in the Internet and enhance the societal dimension legal and ethical understanding of all areas of security, risk and management
- 7.7 Enhance standardisation and interoperability of systems, including for emergency purposes
- 7.8 support the Union's external security policies, including conflict prevention and peace-building



SC7 Secure Societies: Protecting Freedom And Security of Europe and its Citizens

CALLS - FOCUS AREA WP 2014 - 15



- Crisis Management and Civil protection with a view to strengthening prevention and preparedness against natural and man-made disasters by underpinning an all-hazard approach to risk assessment across the EU
- ...developing solutions, for climate change adaptation in areas affected by natural disasters
- Critical Infrastructure Protection...
- Communication Interoperability facilitating disaster management...
- Ethical/Societal Dimension.

FIGHT AGAIN CRIME AND TERRORISM

DISASTER-RESILIENCE: SAFEGUARDING AND SECURING SOCIETY, INCLUDING ADAPTING TO CLIMATE CHANGE



INTERNAL SECURITY: CYBERSECURITY, PRIVACY AND TRUST

BOARDER SECURITY AND EXTERNAL SECURITY



DEADLINES

CALL 1 DISASTER RESILIENCE

DRS - 2, 4, 5, 7, 8, 9, 16, 18, 19, 20, 21 for 2014 Opening date: 25/03/2014	28/08/2014 at 17:00:00 Brussels time
DRS - 1, 3, 6, 10, 11, 12, 13, 14, 15, 22 for 2015 Opening date: 25/03/2015	(27/08/2015 at 17:00:00 Brussels time)

FCT - 5, 7, 8, 10, 11, 12, 13, 14 for 2014 Opening date: 25/03/2014	28/08/2014 at 17:00:00 Brussels time
FCT- 1, 2, 3, 4, 6, 9, 15, 16, 17 for 2015 Opening date: 25/03/2015	(27/08/2015 at 17:00:00 Brussels time)

CALL 2 FIGHT AGAINST CRIME AND TERRORISM



DEADLINES

CALL 3 – BORDER SECURITY AND EXTERNAL SECURITY

BES- 1, 3, 9, 11, 12, 14 for 2014 Opening date: 25/03/2014	28/08/2014 at 17:00:00 Brussels time
BES- 2, 4, 5, 6, 7, 8, 10, 13 for 2015 Opening date: 25/03/2015	(27/08/2015 at 17:00:00 Brussels time)

DS-1,2,6 for 2014	13 May 2014 at 17:00:00 Brussels time
DS-3,4,5 for 2015	[21 April 2015] at 17:00:00 Brussels time

CALL 4 – DIGITAL SECURITY: CYBERSECURITY, PRIVACY AND Trust



APPRE

AZIONI ORIZZONTALI



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)



Azioni ulteriori

Budget proposto (milioni di €)

	EC	EP	Compromise - Current-
EIT – European Institute of Innovation and Technology			2.711
JRC – Joint Research Centres (no nuclear actions)			1.903
Science with and for Society			462
Spreading Excellence and Widening Participation		790	816
Euratom			1.603



2.711 M €

APPRE



EIT

 **eit** European Institute of
Innovation & Technology

H2020 KICs – Knowledge and Innovation Communities

1ST WAVE: 2014	Innovation for healthy living and active ageing
	Raw materials – sustainable exploration, extraction, processing and recycling
2ND WAVE: 2016	Food4future
	Added value manufacturing
3RD WAVE 2018	Urban mobility

+

Climate change KIC - ICT KIC - Sustainable Energy KIC



816 M€



Spreading Excellence and Widening Participation

Horizon 2020 introduces specific measures for spreading excellence and widening participation through engaging those who commit less in the EU research and innovation effort. This will greatly enhance competitiveness.



SPREADING EXCELLENCE AND WIDENING PARTICIPATION

TEAMING &
 TWINNING

ERA CHAIRS

POLICY SUPPORT
 FACILITY
 (COST Action)

TEAMING AND TWINNING: create new Centres of Excellence and expertise and encourage pan-European networking among researchers with a strong focus on excellence and innovation. They will build on knowledge transfer and, exchange of best practice between research institutions, building on the strengths of leading partners.



SPREADING EXCELLENCE AND WIDENING PARTICIPATION

ERA CHAIRS: bring outstanding researchers to universities and other research institutions that have high potential for research excellence. On their side, institutions should mobilise support from different funding sources, including from the European Structural and Investment Funds, to invest in facilities and infrastructures in the context of Smart Specialisation Strategic Policy Frameworks and commit to institutional change and a broader support to innovation.

A **POLICY SUPPORT FACILITY:** inform better the formulation and optimisation of research and innovation policies in low performing Member States and regions aiming to make them more competitive at European level by offering expert advice to public authorities. Efforts to improve the international experience and networking capacities of peripheral institutions will be made by stimulating their participation with cross-border science networks through dedicated *COST* activities, connecting unexploited pockets of excellence throughout Europe.



DEADLINE

WIDESPREAD 1-2014	17/09/2014 at 17.00.00 Brussels time
WIDESPREAD 2-2014	15/10/2014 at 17.00.00 Brussels time
WIDESPREAD 3-2014	26/03/2014 at 17.00.00 Brussels time
H2020-TWINN-2015	02/07/2014



462 M€



Science with and for society

"Science with and for Society shall build effective cooperation between science and society, recruit new talent for science and pair scientific excellence with social awareness and responsibility"



SCIENCE WITH AND FOR SOCIETY

- Call for **making Science Education and careers attractive for young people;**
- Call for **promoting Gender equality in Research and innovation;**
- Call for **integrating Society in Science and Innovation;**
- Call for **developing Governance for the advancement of Responsible Research and Innovation;**
- Call for **Strategic Activities:** networking and sharing knowledge about Science with and for Society



DEADLINE

CALL 1: MAKING SCIENCE EDUCATION AND CAREERS ATTRACTIVE FOR YOUNG PEOPLE

SEAC.1.2014 SEAC.2.2014 SEAC.3.2014	02/10/2014 at 17.00.00 Brussels time	
SEAC.1.2015 SEAC.4.2015		[16/09/2015 at 17.00.00 Brussels time]

GERI.1.2014 GERI.2.2014 GERI.4.2014	02/10/2014 at 17.00.00 Brussels time	
GERI.3.2015 GERI.4.2015		[16/09/2015 at 17.00.00 Brussels time]

CALL 2: PROMOTING GENDER EQUALITY IN RESEARCH AND INNOVATION

ISSI.1.2014.2015 ISSI.2.2014 ISSI.5.2014	02/10/2014 at 17.00.00 Brussels time	
ISSI.1.2014.2015 ISSI.3.2015 ISSI.4.2015 ISSI.5.2015		[16/09/2015 at 17.00.00 Brussels time]

CALL 3: INTEGRATING SOCIETY IN SCIENCE AND INNOVATION

GARRI.1.2014 GARRI.3.2014 GARRI.5.2014 GARRI.6.2014	02/10/2014 at 17.00.00 Brussels time	
[GARRI.7.2014] [GARRI.8.2014]	12/03/2014 at 17.00.00 Brussels time	
GARRI.2.2015 GARRI.4.2015		[16/09/2015 at 17.00.00 Brussels time]

CALL 4: DEVELOPING GOVERNANCE FOR THE ADVANCEMENT OF RESPONSIBLE RESEARCH AND INNOVATION

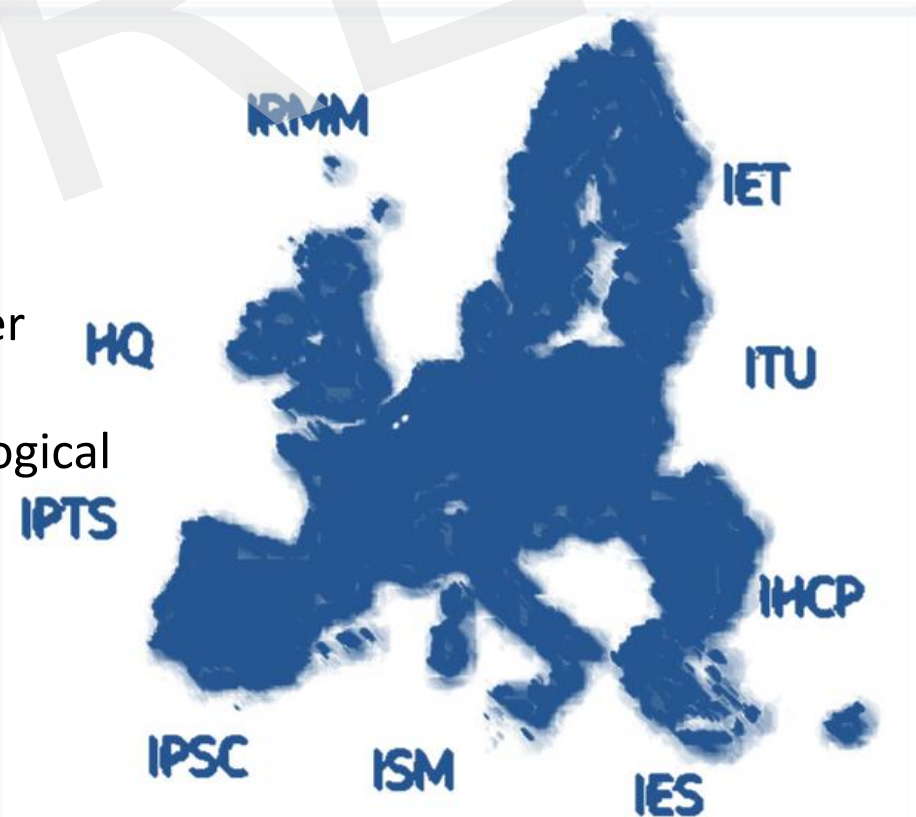


1.903 M €

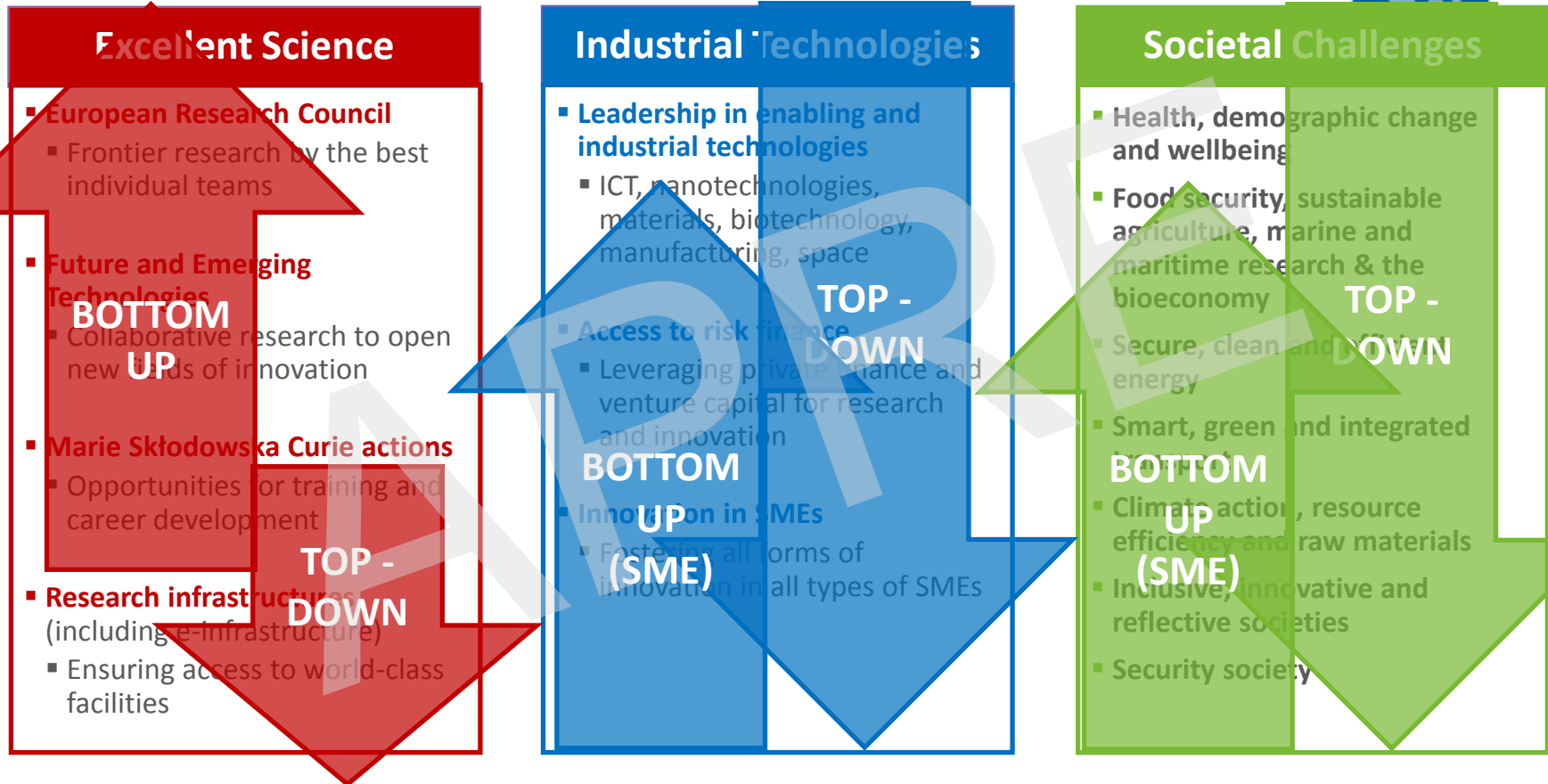
JRC -Joint Research Centre



1. The Institute for Reference Materials and Measurements (IRMM)
2. The Institute for Transuranium Elements (ITU)
3. The Institute for Energy and Transport (IET)
4. The Institute for the Protection and Security of the Citizen (IPSC)
5. The Institute for Environment and Sustainability (IES)
6. The Institute for Health and Consumer Protection (IHCP)
7. The Institute for Prospective Technological Studies (IPTS)



IMPLEMENTAZIONE del programma



European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

Strategic programming approach

2014	2015	2016	2017	2018	2019	2020
Strategic Programme					Strategic programmes: short documents outlining priorities over 3 years, updated every two years	
Work Programme 1		Strategic Programme				
Work Programmes mirror the strategic programme and are updated over the same 2-year cycle		Work Programme 2		Strategic Programme		
				Work Programme 3		
						Work Programme 4
Smaller and continuous updates to respond to unexpected developments						
Calls published on basis of WP	Ad hoc financing decision	Calls published on basis of WP	Ad hoc financing decision	Calls published on basis of WP	Ad hoc financing decision	Calls published on basis of WP

Leitmotif of the first work programme is the

ECONOMIC CRISIS AND THE PATH TO SUSTAINABLE GROWTH www.apre.it



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.

Focus Area

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-intro_en.pdf

A number of areas have been identified for special focus in the first H2020 Work Programme, on the basis that they hold significant potential to support the drivers. Each of these is embedded in the relevant parts of the Work Programme, covered by a specific call.

- Bring together activities from different challenges and enabling technologies
- Provide support across the innovation chain from research, to development, to proof of concept, piloting, demonstration projects, and to setting standards and policy frameworks.
- Make use of the full spectrum of funding schemes and types of action e.g. research and innovation actions, innovation actions, ERANets, SME instrument...
- Integrate different perspectives, including from the social sciences and humanities, gender perspectives, and international strategy

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



WORK PROGRAMME BIANNUALE





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 lighting³⁵

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.

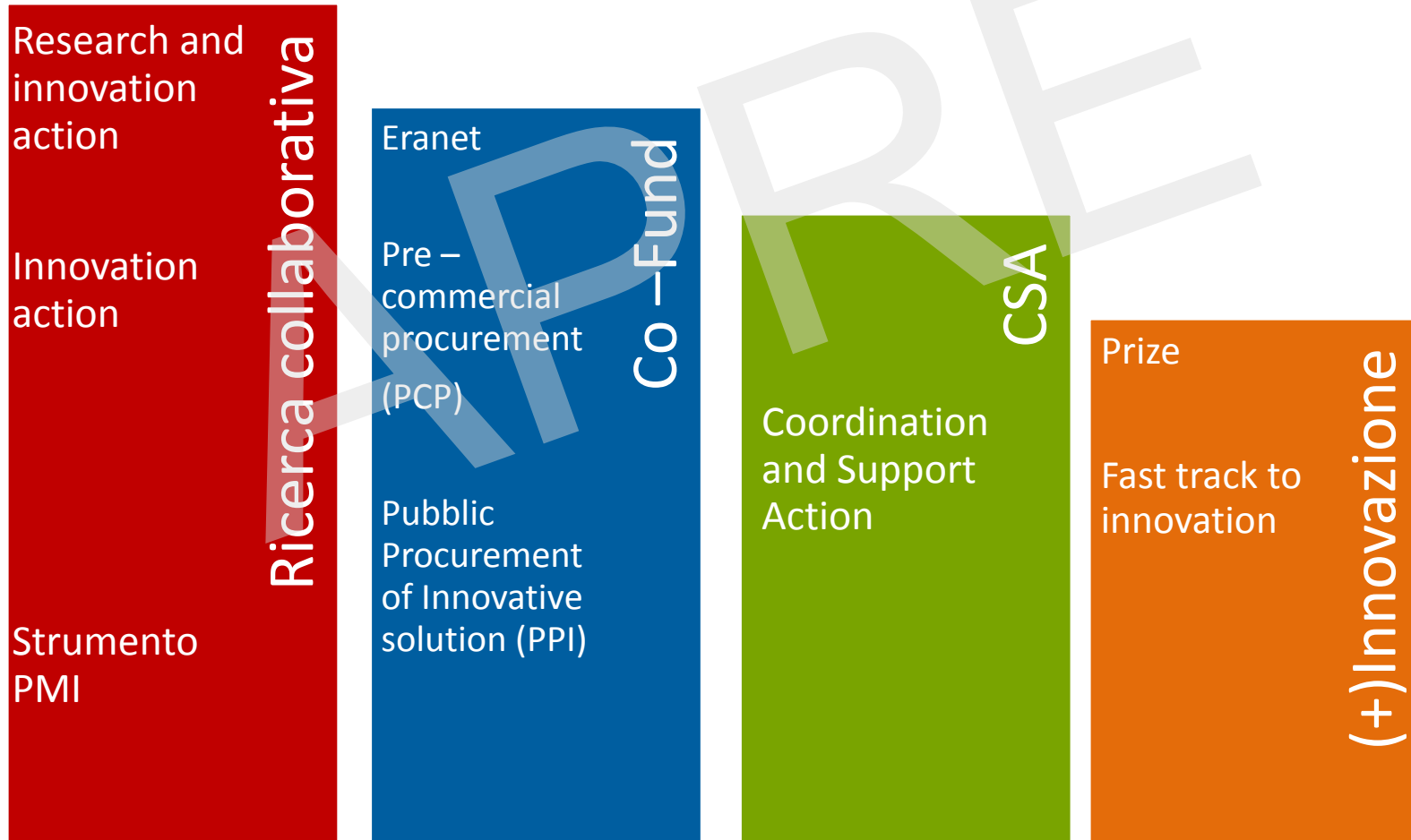
Type of Action:

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 PROGETTI





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

1. Demostration or pilot
2. 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%



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% (except for non-profit legal entities, where a maximum rate of 100%)



LO STRUMENTO PMI





DEFINIZIONE DI PMI

La definizione di PMI utilizzata dalla Commissione (da 01/01/2005):

- ❑ **Impegnata in una attività economica**
- ❑ **< 250 addetti**
- ❑ **Fatturato annuo di \leq € 50 Milioni oppure un bilancio totale di \leq € 43 Milioni**
- ❑ **Autonoma**



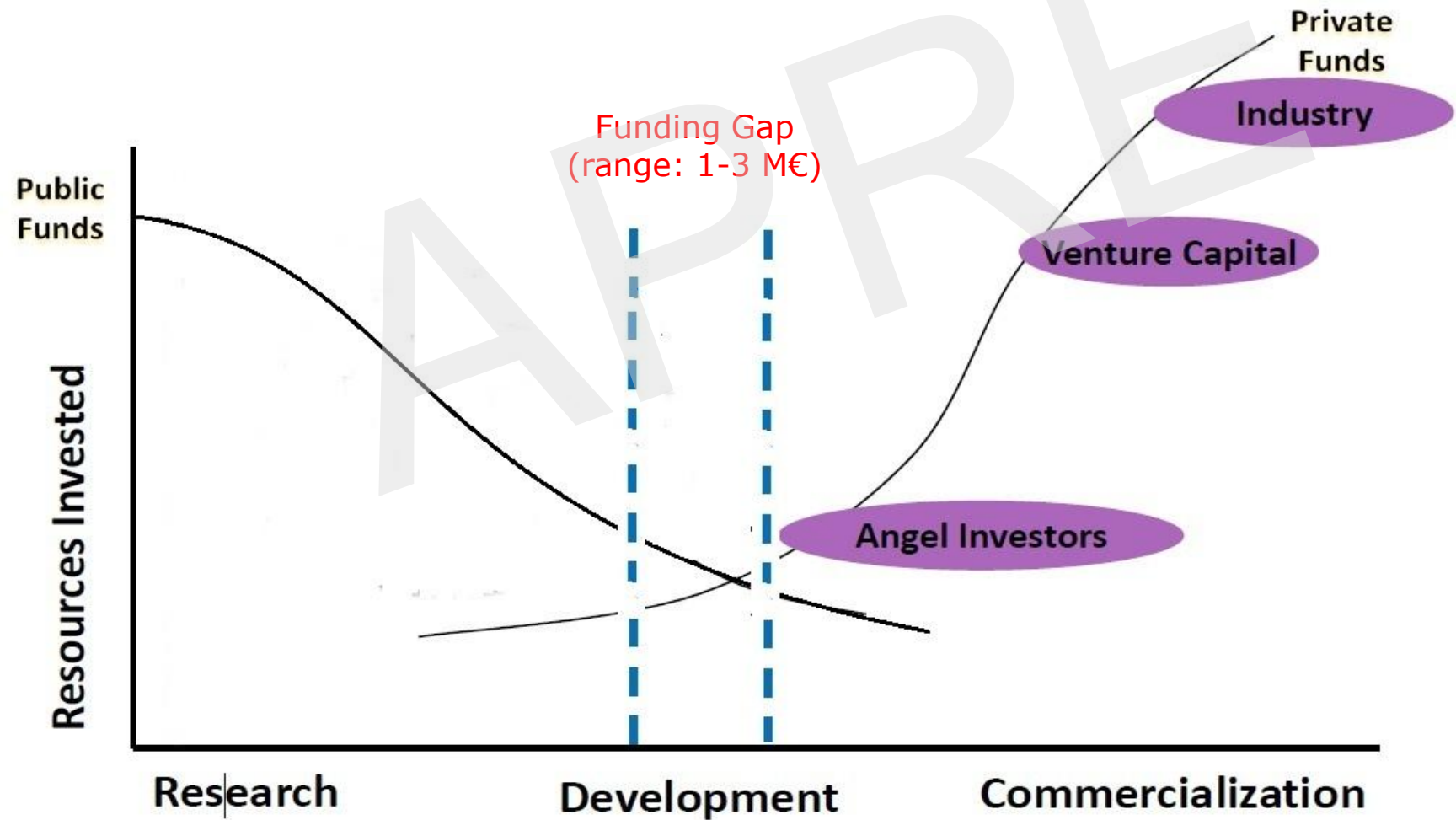
Definizione:

http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

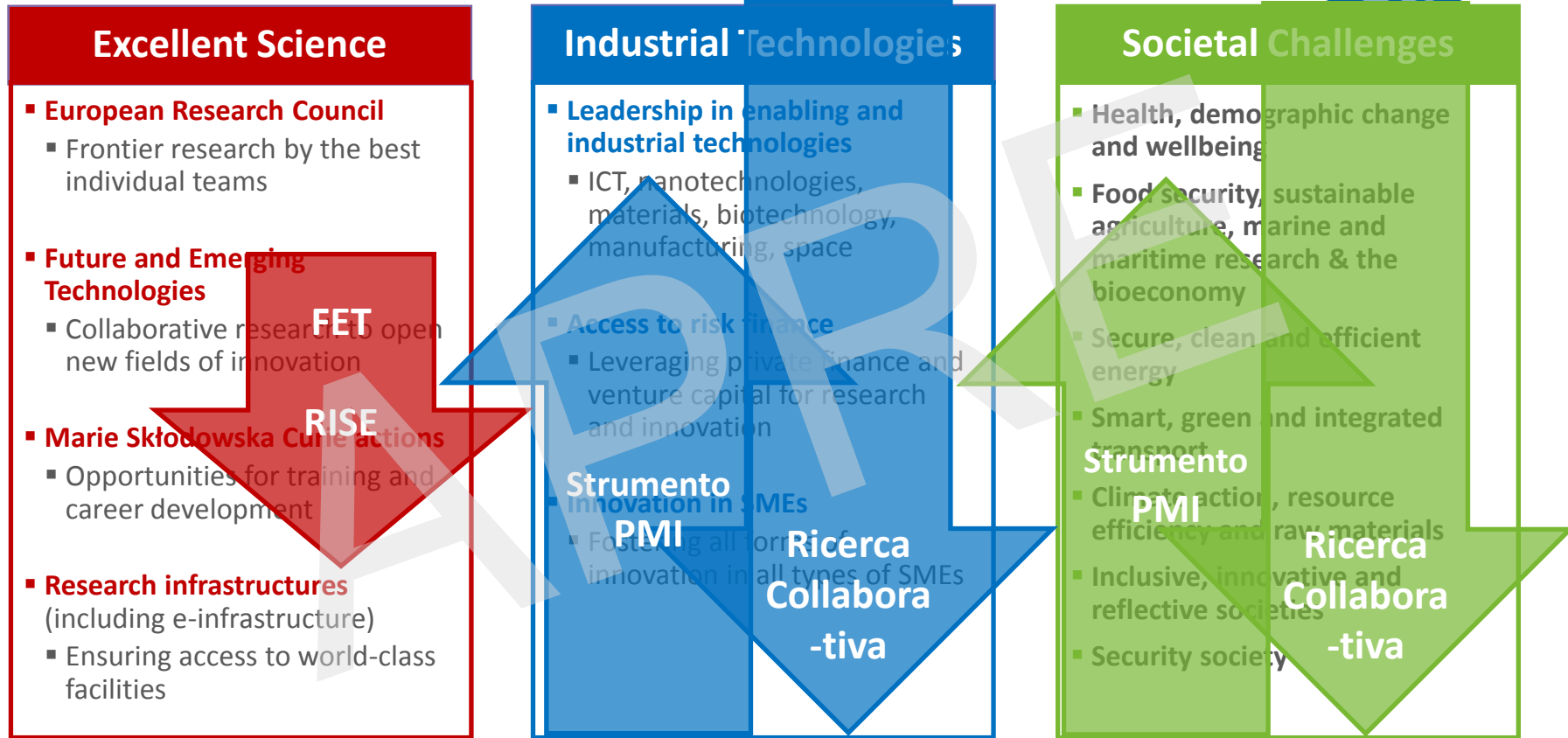
Guida alla nuova definizione:

http://ec.europa.eu/enterprise/enterprise_policy/sme_definition/sme_user_guide_it.pdf

University Small Business



Struttura del programma



European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)



Approccio Integrato

**20 % budget
LEIT + SC
(8.6 miliardi)**

**Progetti collaborativi
13%**

**Strumento PMI
7% (€3 miliardi)**

**LEIT:
'Innovation
in SMEs'**

**Eurostars II
Enhancing Innovation Capacity
Market-driven Innovation**

Access to Risk Finance



Vantaggi del partecipare

- Competizione tra le migliori imprese europee : "Champions league" e quality label
- Visibilità a livello Europeo
- Possibilità di coaching (business/management)
- Networking con investitori e reti
- Trattamento preferenziale di accesso agli strumenti finanziari



LO STRUMENTO PMI

dall'idea al mercato



Concept & Feasibility Assessment

Idea to concept, risk assessment, technological & commercial feasibility

Lump sum: 50.000 €

~ 6 mesi

Demonstration Market replication R&D

Demonstration, prototyping, testing, market replication, scaling up, miniaturisation, research

0.5-2.5 M€ contributo CE

~ 12 to 24 mesi

Commercialisation

Quality label for successful projects, access to risk finance, indirect support

Nessun finanziamento diretto

- Pre-Commercial Procurement
- SME window EU financial facilities

Idea

Sostegno continuo per l'intera durata

Mercato

LE TRE FASI

Fase 1: concetto e valutazione della fattibilità



Input:

Idea/Concept in "**Business Plan I**"
 (~ 10 pages)

Main Activities:

Feasibility of concept
 Risk assessment
 IP regime
 Partner search
 Design study
 Pilot application

Output: elaborated "**Business plan II**"

Lump sum: around 50.000 €

~ 6 months

Fase 2: R&D, dimostrazione, market replication



Input:

"**Business plan II**" + "**Description of activities under Phase2**" (~ 30 pp.)

Main Activities:

Development Prototyping
 Testing
 Piloting
 Miniaturisation
 Scaling-up
 Market replication

- Design & creation of innovative applications to foster the delivery of mobile public services
- New business model for SMEs in traditional sector to innovate

Output: investor-ready "**Business plan III**"

Output based payments:

1 to 2,5 M€ EU funding

~ 12 to 24 months

Fase 3: Commercializzazione



Input:

"**Business plan III**"

+

Opportunities:

'**Quality label**' for successful Phase 1 & 2

Easier access to private finance

Support via networking, training, coaching, information, addressing i.a. IP management, knowledge sharing, dissemination

SME window in the EU financial facilities (debt facility and equity facility)

No direct funding



- **SOLO PER PMI** (1 PMI o consorzio di PMI)
- **APPROCCIO BOTTOM UP** (più o meno generico) nei SC/LEIT
- **OPEN CALL**, organizzate in **3 FASI**
 1. lump sum per esplorare la fattibilità e il potenziale commerciale dell'idea progettuale
 2. Grant per attività di R&I con focus sulle attività dimostrative
 3. Misure di supporto e attività di networking per lo sfruttamento dei risultati
- Nessun obbligo per i partecipanti di coprire tutte e tre le fasi
- Combinazione di attività di dimostrazione (test, prototipizzazione, ...), e ricerca
- Gestione centralizzata (**EACI → EASME**)



DEADLINE

Publication date: 11/12/2013

Opening: 01/03/2014 for phase 1 and phase 2

Deadline(s):

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

Overall indicative budget:

- EUR **251.02** million from the 2014
- EUR **264.57** million from the 2015.



Bando	Budget €	Budget %	Topic	Funding rate Phase 2
ICT	€ 45 million 2014 € 45 million 2015	5,5%	<ul style="list-style-type: none"> ICT-37-2014/2015 Open Disruptive Innovation Scheme (implemented through the SME instrument) 	70%
NMP + B	€ 21,80 million 2014 c 23,80 million 2015	4,5%	<ul style="list-style-type: none"> NMP 25 – 2014/2015 Accelerating the uptake of nanotechnologies, advanced materials or advanced manufacturing and processing technologies by SMEs 	70%
	€ 3,80 million 2014 € 2,80 million 2015		<ul style="list-style-type: none"> BIOTEC 5 – 2014/2015: SME-boosting biotechnology-based industrial processes driving competitiveness and sustainability 	70%
Space	€ 8,50 million 2014 € 8,75 million 2015	5%	<ul style="list-style-type: none"> Call “SME Instrument” 2014 and 2015 (SME-SPACE-1-2014/2015) 	Research and innovation actions (100%) and innovation actions (70%). Due to the nature of the topic it is expected that Phase 2 actions will mainly be innovation actions.

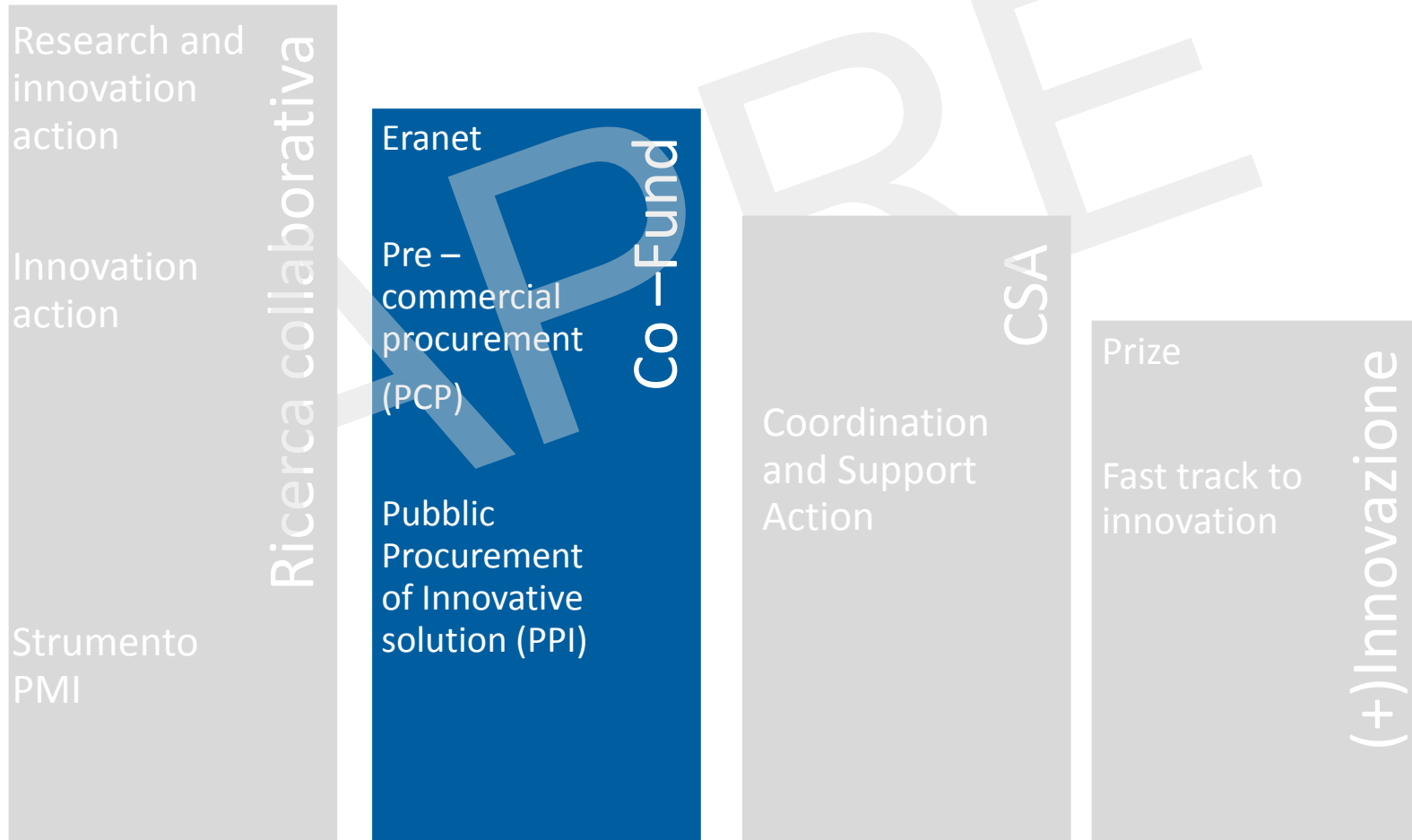
Bando	Budget €	Budget %	Topic	Funding rate Phase 2
Health	€ 66,10 million 2014 € 45,10 million 2015	9,3%	<ul style="list-style-type: none"> PHC 12- 2014/2015 Clinical validation of biomarker and/or diagnostic medical devices 	100%
Food + Bioeconomy	€ 9 million 2014 € 17 million 2015	7,4%	<ul style="list-style-type: none"> SFS 8 – 2014/2015 Resource-efficient eco-innovative food production and processing. 	70%
	€ 3 million 2014 € 5 million 2015		<ul style="list-style-type: none"> BG 12 – 2014/2015 Supporting SMEs efforts for the development-deployment and market replication of innovative solutions for blue growth. 	70%
Energy	€ 33,95 million 2014 € 37,26 million 2015	5,5%	<ul style="list-style-type: none"> SIE 1 – 2014/2015: Stimulating the innovation potential of SMEs for a low carbon and efficient energy system. 	70%
Transport	€ 35,87 million 2014 € 38,96 million 2015	8,6%	<ul style="list-style-type: none"> IT.1 2014/2015 Small business innovation research for transport 	70%



Bando	Budget €	Budget %	Topic	Funding rate Phase 2
Environment	€ 17 million 2014 € 19 million 2015	4,9%	<ul style="list-style-type: none"> SC5 – 20 – 2014/2015 Boosting the potential of small business for eco-innovation and a sustainable supply of raw material. 	70%
SSH	€ 4 million 2015	4,9%	<ul style="list-style-type: none"> INSO 9 – 2015 Innovative mobile e-government applications by SMEs. 	70%
	€ 11 million 2015		<ul style="list-style-type: none"> INSO 10 – 2015 SME business model innovation for inclusive societies. 	70%
Security	€ 7 million 2014 € 7,4 million 2015		<ul style="list-style-type: none"> DRS 18 – 2014/2015 Critical infrastructure protection topic 7: SME Instrument topic: “Protection of urban target” 	70%



TIPOLOGIE PROGETTI





ERANET

DESCRIPTION: ERA-NET Cofund under Horizon 2020 is designed to support public-public partnerships, including joint programming initiatives between Member States, in their preparation, establishment of networking structures, design, implementation and coordination of joint activities as well as Union topping-up of a trans-national call for proposals. It is based on the merger of the former ERA-NET and ERA-NET Plus actions and is implemented by using 'programme co-fund actions'. It allows for programme collaboration in any part of the entire research-innovation cycle.

The main and compulsory activity of the ERA-NET Cofund under Horizon 2020 is the implementation of the co-funded joint call for proposals that leads to the funding of transnational research and/or innovation projects.

FUNDING RATE: The Union contribution will be limited to a maximum of 33% of the total eligible costs of the action. The Union contribution to the costs for support to trans-national projects is limited to one call per grant agreement.



APPALTI PRE-COMMERCIALI (PCP) E APPALTI PUBBLICI DI SOLUZIONI INNOVATIVE (PPI)

- Societal Challenges: riferimenti espliciti al sostegno per appalti R&D
- Industrial Leadership: sostegno a PCP e PPI quali aspetti essenziali per la competitività
- Sostegno ad attori delle infrastrutture di ricerca per permettere di adottare presto nuove tecnologie



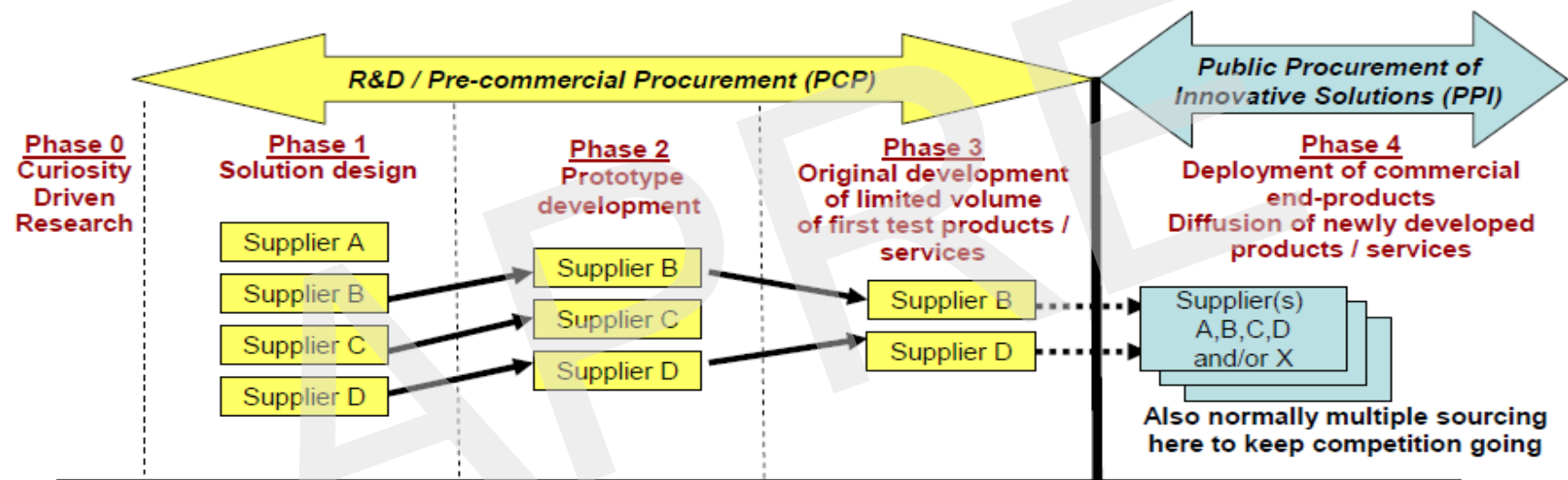
APPALTI PRE-COMMERCIALI (PCP)

- The **OBJECTIVE** of a PCP action is to enable the public sector as a technologically demanding buyer to encourage research, development and validation of breakthrough solutions that can bring radical quality and efficiency improvements in areas of public interest.
- *'pre-commercial procurement'* is defined as procurement of research and development services involving risk-benefit sharing under market conditions, and competitive development in phases, where there is a clear separation between the procurement of the research and development services procured from the deployment of commercial volumes of end-products.
- **FUNDING RATE:** The EU contribution will take the form of a programme Cofund grant consisting of a reimbursement of maximum 70% of the eligible costs to implement the activities defined in the section 'eligible activities', on condition the joint procurement is executed in compliance with the 'Specific requirements for PCPs supported by Horizon 2020'



APPALTI PUBBLICI DI SOLUZIONI INNOVATIVE (PPI)

- The **OBJECTIVE** of a PPI action is to reinforce early deployment of innovative solutions that address challenges of public interest. The aim is to enable trans-national buyer groups of procurers to share the risks of acting as early adopters of innovative solutions and to overcome the fragmentation of demand for innovative solutions in Europe. Each PPI action focuses on one concrete unmet need that is shared by the participating procurers and requires the deployment of innovative solutions that are to a significant extent similar across countries and are therefore proposed to be procured jointly.
- **FUNDING RATE:** The EU contribution is a proportional contribution to the total investment made by the beneficiaries in the action. The EU contribution will take the form of a programme Cofund grant consisting of a reimbursement of maximum 20% of the eligible costs to implement the
- activities defined in the section 'eligible activities'



PRE-COMMERCIAL PROCUREMENT
 A SOSTEGNO DEI BISOGNI DI R&S DELLA
 P.A.

PUBLIC PROCUREMENT OF INNOVATIVE SOLUTIONS A SUPPORTO DELL'ACQUISIZIONE
 DI PRODOTTI/SERVIZI INNOVATIVI DA PARTE
 DELLA P.A.



TIPOLOGIE PROGETTI





COORDINATION AND SUPPORT ACTION

- **DESCRIPTION:** Actions consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of networking and coordination between programmes in different countries.
- **FUNDING RATE:** maximum 100%

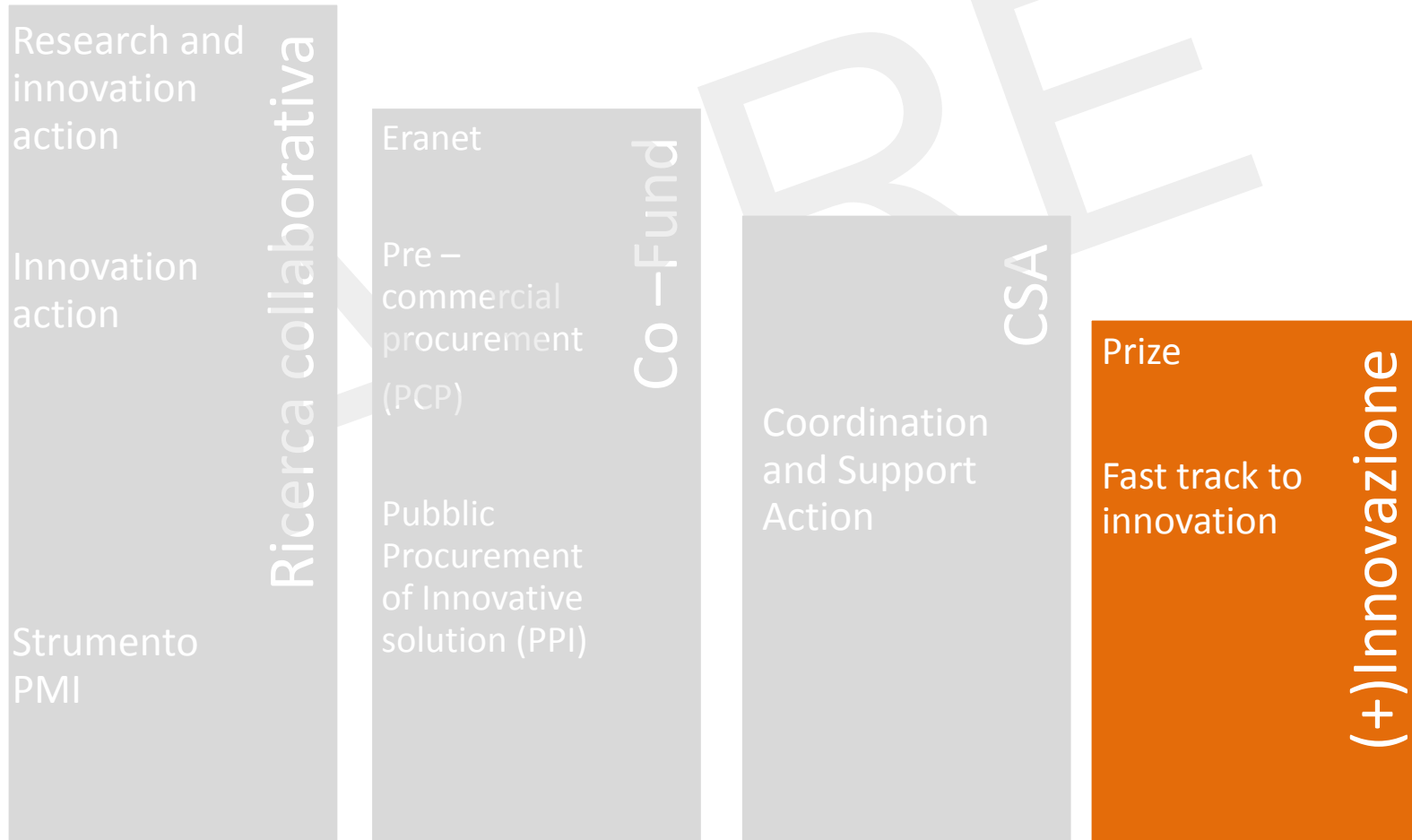


STANDARD

- Societal Challenges: riferimenti espliciti a standard comuni e/o guidelines e interoperabilità
- Industrial Leadership: promuovere attività a sostegno di standard e interoperabilità, (sicurezza e attività di pre-regolamentazione)
- Attività di disseminazione per promuovere l'uso dei risultati conseguiti a livello europeo, nazionale e locale



TIPOLOGIE PROGETTI





PREMI

- Facile accesso a più partecipanti con minori ostacoli amministrativi (= semplificazione per beneficiari e amministrazioni)
- *Result-driven*: premiato solo chi ottiene risultati
- Effetto leva: stimolo degli investimenti privati calcolato in 10 – 20 volte il valore cash del premio
- Pubbliche relazioni: cattura l'interesse e l'attenzione del pubblico su un particolare aspetto sociale
- Commercializzazione: i premi pubblicizzano bene una innovazione e servono da stimolo per investitori e inventori a portare la soluzione creata al mercato



PREMI

- **RECOGNITION PRIZES**

- (*Nobel Prize, DG INFSO's "ICT Prize", ...*)= riconoscimento di meriti scientifici

- **INDUCEMENT PRIZES**

- competizione che attribuisce un premio al raggiungimento di un obiettivo specifico (*Ortieg Prize, Ansari X-Prize, ...*). L'importo del premio non è legato al costo di realizzo dell'obiettivo



FAST TRACK TO INNOVATION

- Increase the participation of industry, SMEs and first time applicants in Horizon 2020
- Stimulate private sector investment in research and innovation
- Promote research and innovation with a focus on value creation and accelerate the development of technologies into innovative products, processes and services



FAST TRACK TO INNOVATION

- **PROCEDURA PILOTA** (lancio **2015**)
- PER LE INNOVATION ACTION RELATIVE A QUALSIASI CAMPO TECNOLOGICO (in LEIT e SC)
- BANDI SEMPRE APERTI CON TRE SCADENZE PER ANNO
- 6 MESI TRA SCADENZA DEL BANDO E FIRMA DEL GA
- max. **3M €**
- max. **5 PARTECIPANTI**
- no APPROVAZIONE COMITATO



PARTECIPAZIONE

FOCUS: COOPERAZIONE INTERNAZIONALE





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

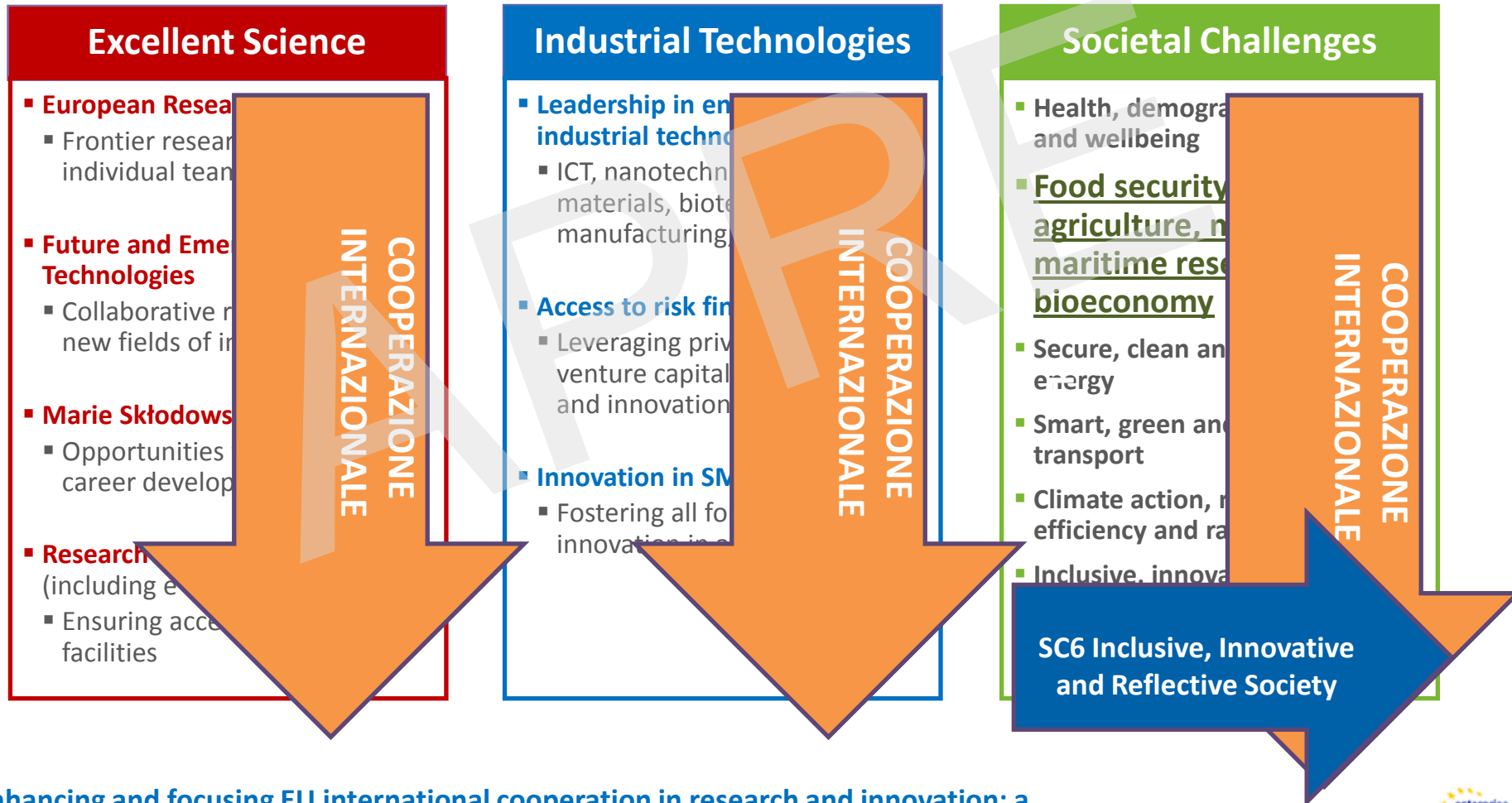
1 SOLO PARTECIPANTE

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...)

H2020 E LA COOPERAZIONE INTERNAZIONALE



*'Enhancing and focusing EU international cooperation in research and innovation: a strategic approach' (COM(2012) 497)

<http://ec.europa.eu/research/iscp/index.cfm?pg=strategy>



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'attrattiva 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

- Focus su allineamento con ERA
- Supporto alle politiche di allargamento e vicinato (supporto nello sviluppare un comune 'Knowledge and Innovation Space')
- *(compresi Associated Countries)*

Industrialised countries and emerging economies

- Focus su competitività
- Affrontare sfide globali
- Opportunità di business e accesso a nuovi mercati

Emergenti economies: **Brasile, Russia, India, Cina + Messico**

Developing countries

- 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)

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

*LIST: general ANNEX A WP



INTERNATIONAL COOPERATION IN H2020

- Attività mirate nei pilastri **SOCIETAL CHALLENGES E INDUSTRIAL LEADERSHIP**
 - Projects with required or preferential 3rd country participation
 - Joint calls, delegated management, ERA-NET

- **Pilastro EXCELLENT SCIENCE**
 - Marie Skłodowska-Curie Fellowships : strong international dimension
 - Development of global research infrastructures
 - ERC open to researchers from all over the world - research to be carried out mostly in Member States or Associated Countries

- **Azioni cross-cutting dedicate – INCLUSIVE, INNOVATIVE AND REFLECTIVE SOCIETIES CHALLENGE (6° CHALLENGE)**
 - Support for to policy dialogue
 - Networking and twinning activities
 - Coordination of EU and MS/AC international cooperation policies
 - Strengthening of European presence in international partner countries



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)



TARGET ACTIONS: esempi

- Coordinated call:
 EU – BRAZIL (ICT)

EU-Brazil Research and Development Cooperation in Advanced Cyber Infrastructure

H2020 – EUB – 2015

This topic is a major element for the implementation of EU-Brazil cooperation in the area of future networks and e-infrastructures. It sets the basis for further progress in three distinctive themes, with the objective of developing common positions, standards and interoperable systems for cloud computing, HPC and experimentation facilities for internet technologies. It aims as well at reinforcing the mechanisms for an efficient definition and implementation of joint R&D actions. Proposals with balanced participation of EU and Brazilian partners should make a substantial contribution to the identified themes indicating the benefits of a joint effort.

Proposals are invited against the following topics:

EUB 1 – 2015: Cloud Computing, including security aspects



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 China¹⁴.

CHINA





COOPERAZIONE INTERNAZIONALE NEL SC2

- Supporto a bilateral agreements and dialogues strategici, a cooperazione multilaterale e con istituzioni internazionali.



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SC2: PAESI TERZI VS TOPIC

PAESI	TOPIC
EU - China dialogue on research and innovation , China-EU Task Force on Food, Agriculture and Biotechnology	SFS-1A; SFS-1B; SFS-3B; SFS-4; SFS-13; WASTE-2 and WASTE-7;
Transatlantic Research Alliance: USA/Canada (BLUE GROWTH)	BG-1; BG-7; BG-8; BG-13; BG-14; BG-15
International KBBE Forum between the EU, Australia, Canada and New Zealand	SFS-10; SFS-16
EU - Africa dialogue on research and innovation	SFS-6; SFS-18
Cooperazione internazionale generale <i>support to international cooperation efforts and particularly the participation from entities from the targeted countries or regions will be positively considered during the evaluation of proposals.</i>	SFS-3A; SFS-5; SFS-10; SFS-7B; SFS-14A; SFS-15; SFS-16; SFS-19B; SFS-20; BG-14; BG-15; ISIB-3; ISIB-9; ISIB-11; ISIB-12; PHC-7