

# **Proposte italiane nella prospettiva del prossimo programma quadro EU**

**Roma 31 luglio 2018**

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CNR - Ufficio Relazioni Europee e Internazionali  
Bruxelles

# From 2014



## Council on 5<sup>th</sup> December 2014



# In questa giornata:

- La macchina europea
- Il processo verso i finanziamenti
- A che punto siamo
- Cosa abbiamo fatto
- Cosa possiamo fare
- Dove stiamo andando

# Alcune domande frequenti

- Buongiorno, vorrei fare un progetto con l'Europa
- Buongiorno, abbiamo saputo che a Bruxelles ci sono dei soldi
- Buongiorno, volevamo sapere perché non c'è un topic sulla pinna dorsale del cavalluccio marino



**Si può fare quasi tutto ma occorre una strategia**

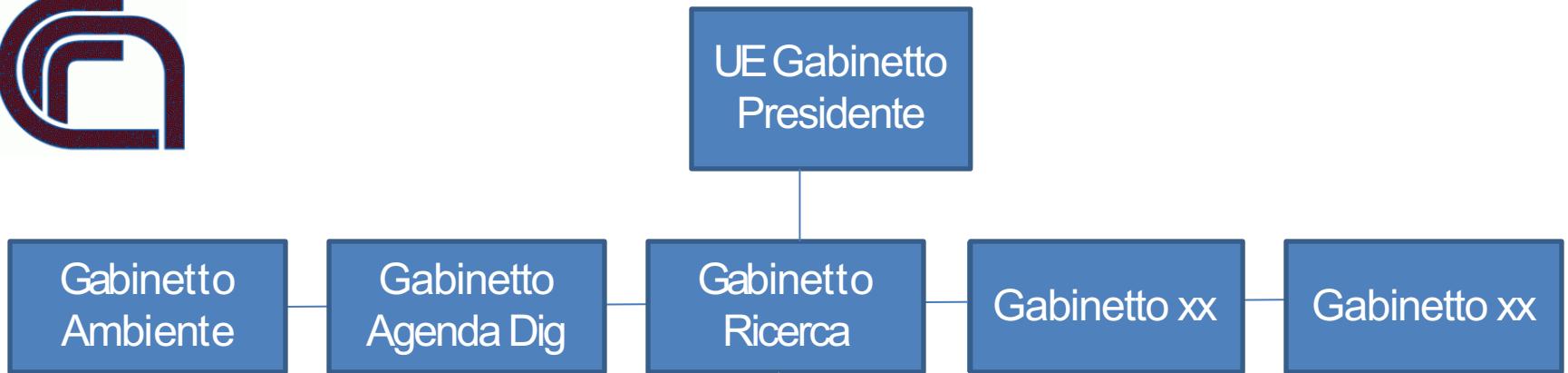
# The Bruxelles “machine”

Diversi Stati Membri hanno interessi diversi

Stakeholders di Stati Membri hanno interessi diversi

L'UE ha una sua agenda





MIUR

X28 Stati  
Membri

CNR

UNI

CONFIND

DPT

DPT

DPT

IST

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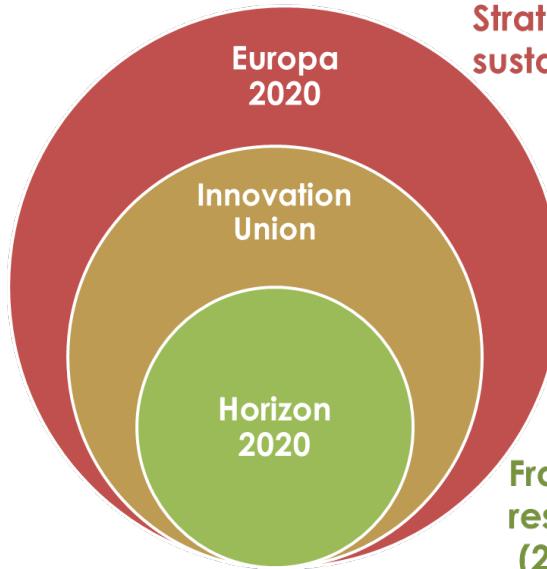


Ricercatore





# Horizon 2020



Strategy for smart, inclusive and sustainable growth

Flagship initiative for R&D&I

Framework program on research and innovation (2014- 2020)

È parte integrante delle politiche europee Europe 2020, Innovation Union & European Research Area:

- Per rispondere alla crisi economica e investire in lavoro e crescita
- Rafforzare il posizionamento EU nel settore di Ricerca ed innovazione

Horizon 2020 è ad oggi il più grande programma di finanziamento globale per ricerca e innovazione con un budget nei 7 anni di €79,4 miliardi di euro e finanzia tutti le tipologie di organizzazione, coprendo tutta il ciclo di ricerca e innovazione dalla ricerca di base passando per i dimistratori fino all'ingresso di un prodotto servizio sul mercato;

**MA E' IN PRIMIS UNO STRUMENTO POLITICO**



	Countries Participation	SMEs Participation	EU Financial contribution	EU contribution to SMEs	
1	AT - Austria BE - Belgium BG - Bulgaria CY - Cyprus CZ - Czech Republic	2.018 3.295 350 364 752	495 698 70 118 171	804.612.435 2,75 % 1.391.426.844 4,76 % 57.678.797 0,20 % 108.055.311 0,37 % 190.605.488 0,65 %	155.631.825 198.083.087 11.081.139 32.668.632 37.070.582
2	DE - Germany DK - Denmark EE - Estonia EL - Greece	8.976 1.685 350 2.133	1.748 357 110 479	4.720.676.571 16,16 % 731.428.467 2,50 % 93.276.021 0,32 % 660.384.509 2,26 %	592.971.197 149.784.742 30.356.342 128.577.200
3	ES - Spain FI - Finland FR - France	7.436 1.461 6.433	2.032 293 1.305	2.668.366.234 9,13 % 639.278.683 2,19 % 3.057.451.415 10,46 %	614.982.311 132.308.199 451.846.003
4	HR - Croatia HU - Hungary IE - Ireland	315 639 1.222	48 202 309	50.843.459 0,17 % 180.262.637 0,62 % 518.699.757 1,78 %	10.743.196 53.745.323 115.780.414
5	IT - Italy LT - Lithuania LU - Luxembourg LV - Latvia MT - Malta NL - Netherlands PL - Poland PT - Portugal RO - Romania SE - Sweden SI - Slovenia SK - Slovakia	6.789 254 233 224 106 4.525 1.164 1.571 629 2.200 622 309	1.725 57 52 40 22 969 229 380 92 385 173 74	2.419.643.988 8,28 % 37.119.016 0,13 % 71.796.320 0,25 % 47.114.934 0,16 % 17.698.984 0,06 % 2.242.346.704 7,67 % 280.508.754 0,96 % 473.175.792 1,62 % 102.404.200 0,35 % 1.009.916.694 3,46 % 172.558.020 0,59 % 77.845.936 0,27 %	482.216.929 11.694.809 12.592.340 8.013.041 4.830.861 361.538.104 71.872.051 102.066.986 13.643.371 161.953.616 52.957.955 15.982.990
2	UK - United Kingdom	8.873	1.732	4.241.190.332 14,52 %	679.814.838

1	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS (CNRS) <a href="#">details</a>	REC	FR	FR101	973	582,281,008.64	580,013,665.08
2	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV (MPG) <a href="#">details</a>	REC	DE	DE212	369	548,597,750.15	549,542,072.91
3	COMMISSARIAT AL ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES (CEA) <a href="#">details</a>	REC	FR	FR101	403	334,467,739.07	328,240,369.70
4	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. (Fraunhofer) <a href="#">details</a>	REC	DE	DE212	601	333,919,671.93	333,531,366.42
5	THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE <a href="#">details</a>	HES	UK	UKH12	422	267,807,027.09	268,083,874.19
6	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD (UOXF) <a href="#">details</a>	HES	UK	UKJ14	394	260,707,923.83	260,603,486.33
7	UNIVERSITY COLLEGE LONDON <a href="#">details</a>	HES	UK	UKI31	393	253,000,410.74	252,791,552.41
8	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE (Imperial) <a href="#">details</a>	HES	UK	UKI32	297	178,489,430.12	178,489,430.12
9	KOBENHAVNS UNIVERSITET (UCPH) <a href="#">details</a>	HES	DK	DK011	358	176,846,866.11	177,521,457.87
10	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE (EPFL) <a href="#">details</a>	HES	CH	CH011	240	172,444,187.55	171,687,110.67
11	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC) <a href="#">details</a>	REC	ES	ES300	407	171,838,656.89	170,840,005.69
12	THE UNIVERSITY OF EDINBURGH (UEDIN) <a href="#">details</a>	HES	UK	UKM25	250	169,445,237.92	168,789,418.67
13	KATHOLIEKE UNIVERSITEIT LEUVEN (KU Leuven) <a href="#">details</a>	HES	BE	BE242	316	166,233,142.72	166,838,693.49
14	CONSIGLIO NAZIONALE DELLE RICERCHE (CNR) <a href="#">details</a>	REC	IT	ITI43	408	165,707,247.59	165,719,428.00
15	TECHNISCHE UNIVERSITEIT DELFT (TU Delft) <a href="#">details</a>	HES	NL	NL333	268	162,632,587.92	162,886,618.52
16	INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE <a href="#">details</a>	REC	FR	FR101	211	152,010,804.87	149,336,164.67
17	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV (DLR) <a href="#">details</a>	REC	DE	DEA23	246	138,464,919.84	138,208,017.82
18	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH (ETH Zürich) <a href="#">details</a>	HES	CH	CH040	249	137,779,567.42	137,722,079.92
19	COST ASSOCIATION (CA) <a href="#">details</a>	OTH	BE	BE100	1	137,249,171.00	137,249,171.00
20	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM (IMEC) <a href="#">details</a>	REC	BE	BE242	140	132,900,072.87	132,295,744.12
21	THE UNIVERSITY OF MANCHESTER (UNIVERSITY OF MANCHESTER) <a href="#">details</a>	HES	UK	UKD33	200	124,405,774.41	124,390,138.84
22	TEKNOLOGIAN TUTKIMUSKESKUS VTT OY (TEKNOLOGIAN TUTKIMUSKESKUS VTT OY) <a href="#">details</a>	REC	FI	FI1B1	221	120,885,565.86	120,337,430.14
23	DANMARKS TEKNISKE UNIVERSITET (DTU) <a href="#">details</a>	HES	DK	DK012	221	117,670,049.39	117,216,780.78
24	UNIVERSITEIT VAN AMSTERDAM <a href="#">details</a>	HES	NL	NL326	165	112,919,972.51	112,919,972.51
25	TECHNISCHE UNIVERSITAET MUENCHEN (TUM) <a href="#">details</a>	HES	DE	DE212	165	110,982,845.87	110,982,845.87
26	UNIVERSITEIT UTRECHT (UU) <a href="#">details</a>	HES	NL	NL310	174	105,291,615.27	106,350,879.43
27	STICHTING KATHOLIEKE UNIVERSITEIT <a href="#">details</a>	HES	NL	NL226	142	102,673,157.37	102,997,007.37
28	FORSCHUNGZENTRUM JULICH GMBH (FORSCHUNGZENTRUM JULICH GMBH) <a href="#">details</a>	REC	DE	DEA26	117	102,338,273.48	100,931,980.91
29	HELSINKIN YLIOPISTO <a href="#">details</a>	HES	FI	FI1B1	163	100,584,671.26	100,684,959.94
30	LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN (LMU MUENCHEN) <a href="#">details</a>	HES	DE	DE212	141	99,440,872.26	99,440,872.26



# What next?

## EU budget chief wants to protect research from cuts in 2021 - 2027 budget cycle

Günther Oettinger says research should be the only programme spared spending cuts as the EU weighs how to make up for losing the UK's €11B per annum contribution

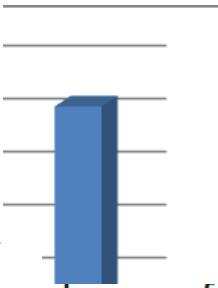
By Éanna Kelly



## EU Parliament wants a substantially bigger research budget

Research spending should rise to €120B in the 2021 - 2028 budget, despite shrinking EU funds post-Brexit, say MEPs

By Éanna Kelly



dreams of €160B for research

Commission President wants to double current investment



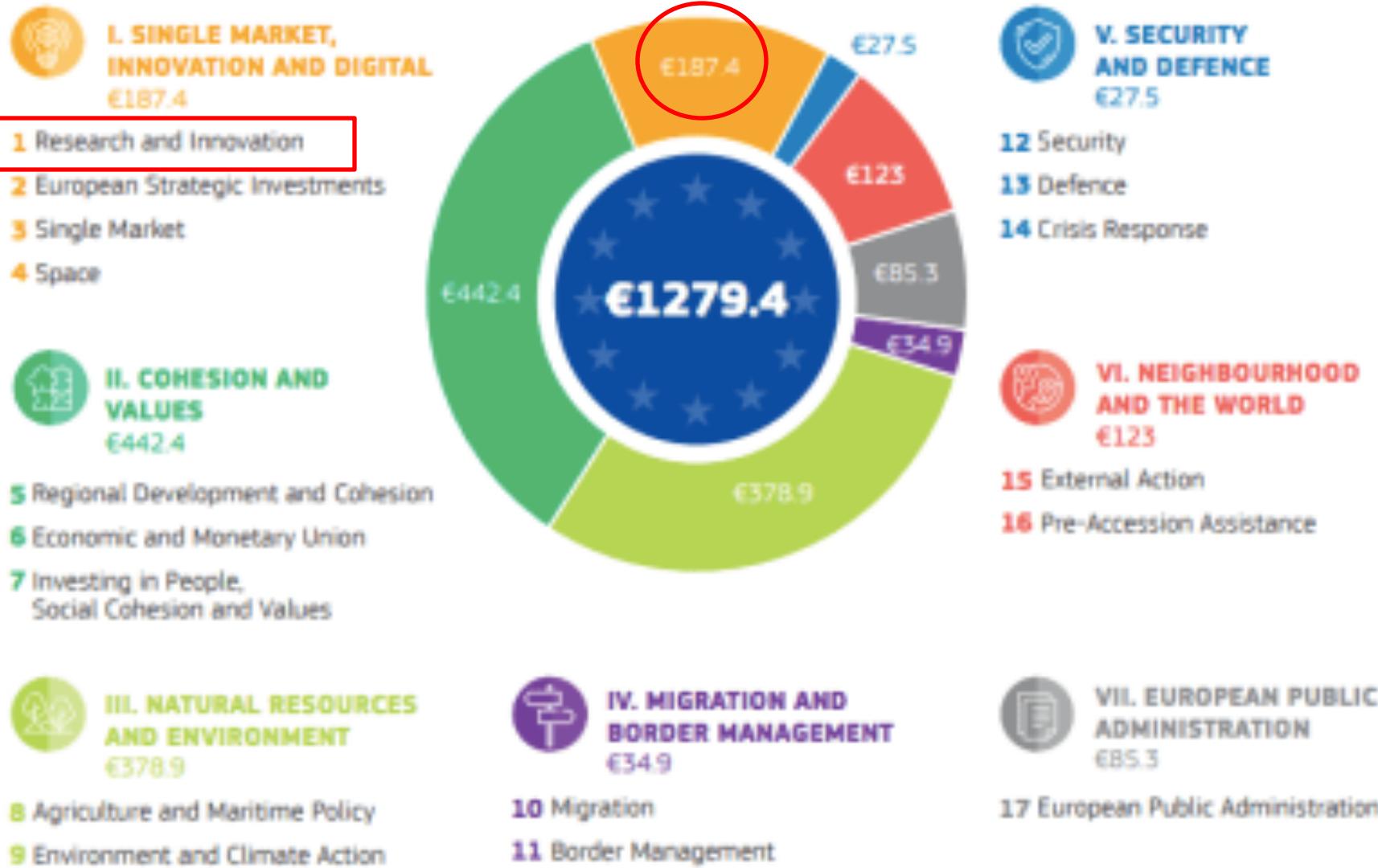
## HORIZON EUROPE

100  
miliardi  
di euro

# THE NEW MULTIANNUAL FINANCIAL FRAMEWORK 2021 - 2027

## A BUDGET FOR A UNION THAT PROTECTS, EMPOWERS AND DEFENDS

In billion euro, current prices



# Dotazione Finanziaria 2014 - 2020

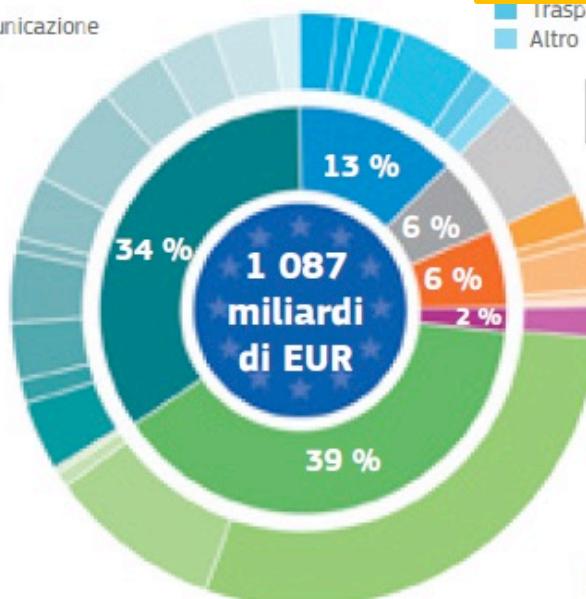
## Settori finanziati dal bilancio dell'UE

Quadro finanziario pluriennale 2014-2020

in miliardi di euro e in percentuale, a prezzi correnti

### Coesione economica, sociale e territoriale 371,4 miliardi di EUR

- Ricerca e innovazione
- Tecnologie dell'informazione e della comunicazione
- Piccole e medie imprese
- Economia a basse emissioni di carbonio
- Cambiamento e rischio climatico
- Ambiente e uso efficiente delle risorse
- Trasporti ed energia
- Occupazione
- Inclusione sociale
- Formazione professionale
- Altro



### Crescita sostenibile: risorse naturali 420 miliardi di EUR

- Agricoltura
- Sviluppo rurale
- Pesca
- Ambiente e altro



### Competitività per la crescita e l'occupazione

142,1 miliardi di EUR

- Istruzione
- Energia
- Industria e piccole e medie imprese
- Reti e tecnologia
- Ricerca e innovazione
- Trasporti
- Altro

Circa 8%



### Amministrazione 69,6 miliardi di EUR



### Ruolo mondiale dell'Europa 66,3 miliardi di EUR

- Sviluppo e cooperazione internazionale
- Aiuto umanitario
- Vicinato e allargamento
- Strumenti di politica estera
- Altro



### Sicurezza e cittadinanza 17,7 miliardi di EUR

- Migrazione e affari interni
- Salute e sicurezza alimentare
- Cultura
- Giustizia
- Altro

# Horizon Europe- Research and innovation funding programme

La Commissione ha proposto 100 miliardi di euro per I 7 anni di durata del programma (2021-2027)



rafforzare le basi scientifiche e tecnologiche dell'UE



rafforzare la capacità di innovazione, la competitività e l'occupazione dell'Europa



realizzare le priorità dei cittadini e sostenere il nostro modello e i nostri valori socio-economici.

*Si propongono inoltre ulteriori 4,1 miliardi di euro destinati alla **ricerca nel settore della difesa**, che è dettagliata nel «Fondo europeo di difesa», oggetto di una proposta distinta ma complementare.*



*Quote from press release on May communication*

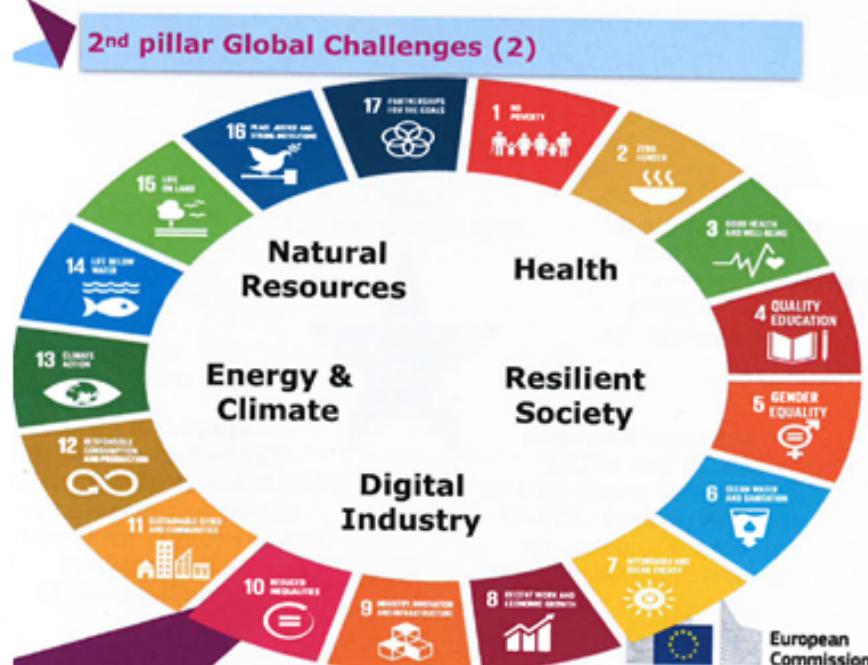
***"Con la crescente competizione internazionale, l'Europa deve agire con urgenza su ricerca e innovazione. La proposta di 100 miliardi di euro per il prossimo programma di ricerca e innovazione dell'UE sarebbe un enorme incentivo.'***

***Carlos Moedas, Commissioner,  
15/05/2018***



## Rationalization from 7 SCs+ LEIT to 5 thematic clusters

### TOWARDS FP9: STRUCTURE



Framework contest SDGs



Cluster 1

Healthy Europe

Main SDG 3,5,10,17

Cluster 2

Nourished  
and Green  
Europe

Main SDG  
2,6,12,14,15,  
17

Cluster 3  
Low-carbon  
Europe

Main SDG  
7,13,17

Possible  
labelling

Cluster 4  
Digitised  
Europe

Main SDG  
5,6,8,9,10,12,  
13,17

Cluster 5  
Secure and inclusive  
Europe

Main SDG  
1,2,4,5,6,10,11,12,16,17

### Altri possibili aspetti caratterizzanti di FP 9

- Maggior Coinvolgimento dei Cittadini -Maggior Focus su «Impatto» e «Comunicazione»
- Maggiore Cooperazione Internazionale -Raccordo con i Fondi Strutturali -Raccordo con il Sistema Educativo e Formativo -Revisione ad hoc della normativa sugli Aiuti di Stato

# Horizon Europe – What's new?



**Open Science**



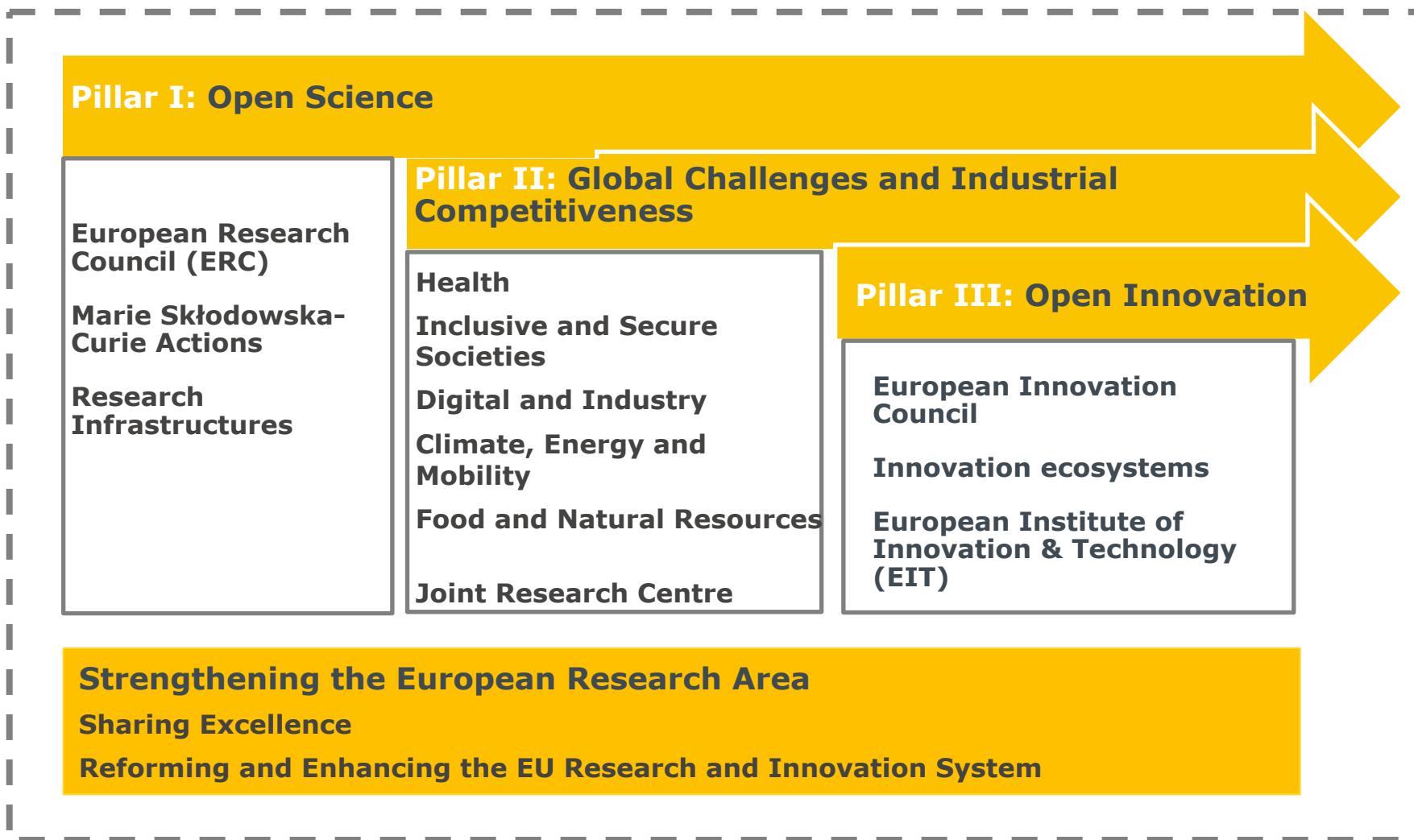
**Global Challenges and  
Industrial Leadership**



**Open Innovation**

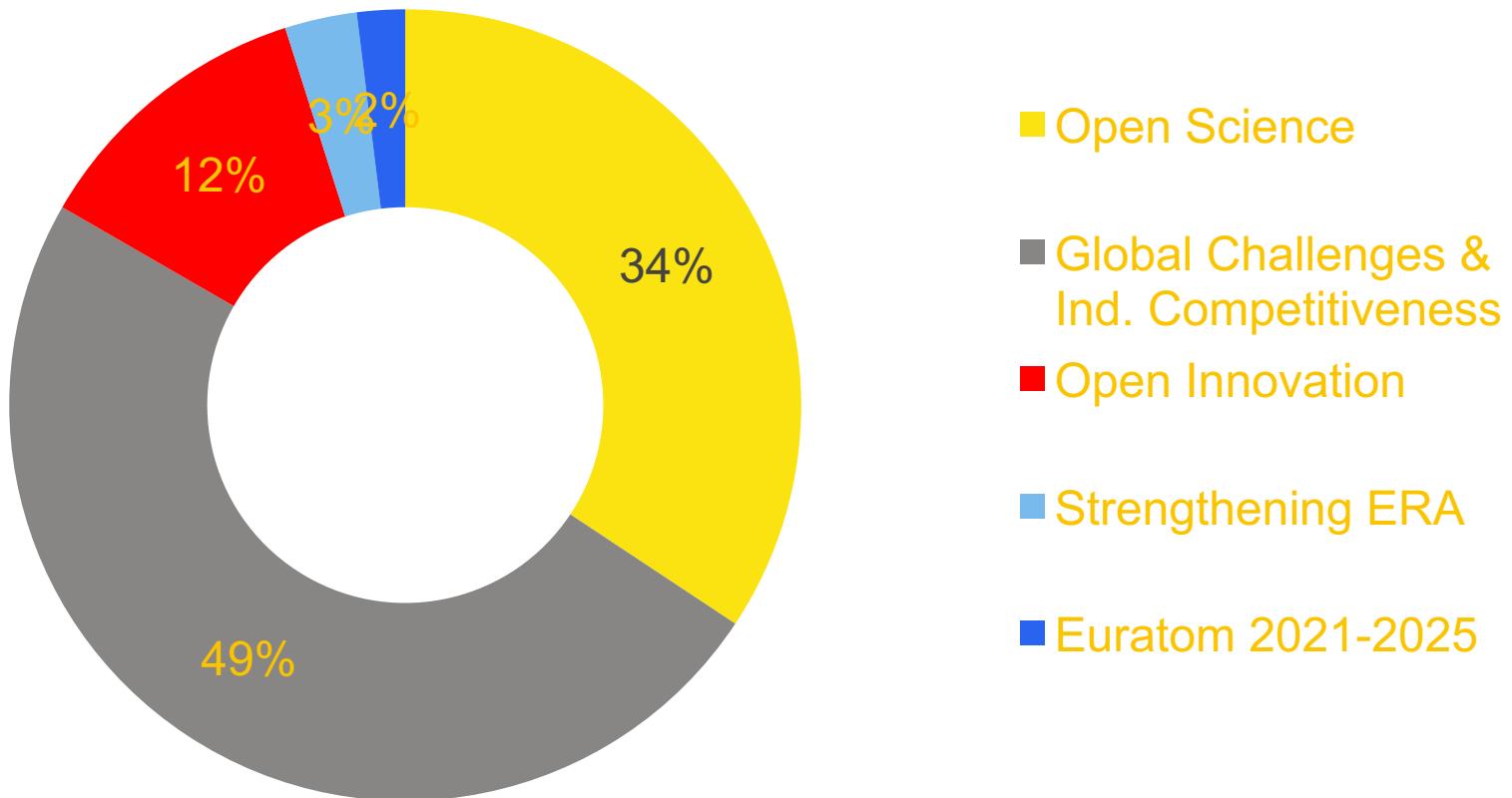
**Strengthening the European  
Research Area (ERA)**

# Horizon Europe – Structure





# Budget 94 100 000 000



\* In addition, this envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

The financial envelope for the implementation of the Framework Programme for the period 2021 – 2027 shall be EUR **94 100 000 000** in current prices

- (a) EUR 25 800 000 000 for Pillar I 'Open Science' for the period 2021-2027, of which
  - (1) EUR 16 600 000 000 for the European Research Council;
  - (2) EUR 6 800 000 000 for Marie Skłodowska-Curie Actions;
  - (3) EUR 2 400 000 000 for research infrastructures;
- (b) EUR 52 700 000 000 for Pillar II 'Global Challenges and Industrial Competitiveness' for the period 2021-2027, of which
  - (1) EUR 7 700 000 000 for cluster 'Health';
  - (2) EUR 2 800 000 000 for cluster 'Inclusive and Secure Society';
  - (3) EUR 15 000 000 000 for cluster 'Digital and Industry';
  - (4) EUR 15 000 000 000 for cluster 'Climate, Energy and Mobility';
  - (5) EUR 10 000 000 000 for cluster 'Food and Natural Resources';
  - (6) EUR 2 200 000 000 for the non-nuclear direct actions of the Joint Research Centre
- (c) EUR 13 500 000 000 for Pillar III 'Open Innovation' for the period 2021-2027, of which
  - (1) EUR 10 500 000 000 for the European Innovation Council, including up to EUR 500 000 000 for European Innovation Ecosystems;
  - (2) EUR 3 000 000 000 for the European Institute of Innovation and Technology (EIT);
- (d) EUR 2 100 000 000 for Part 'Strengthening the European Research Area' for the period 2021-2027, of which
  - (1) EUR 1 700 000 000 for 'sharing excellence';
  - (2) EUR 400 000 000 for 'reforming and enhancing the European R&I System'.

# Maggiori Novità



Support breakthrough innovation



Create more impact through mission-orientation and citizens' involvement



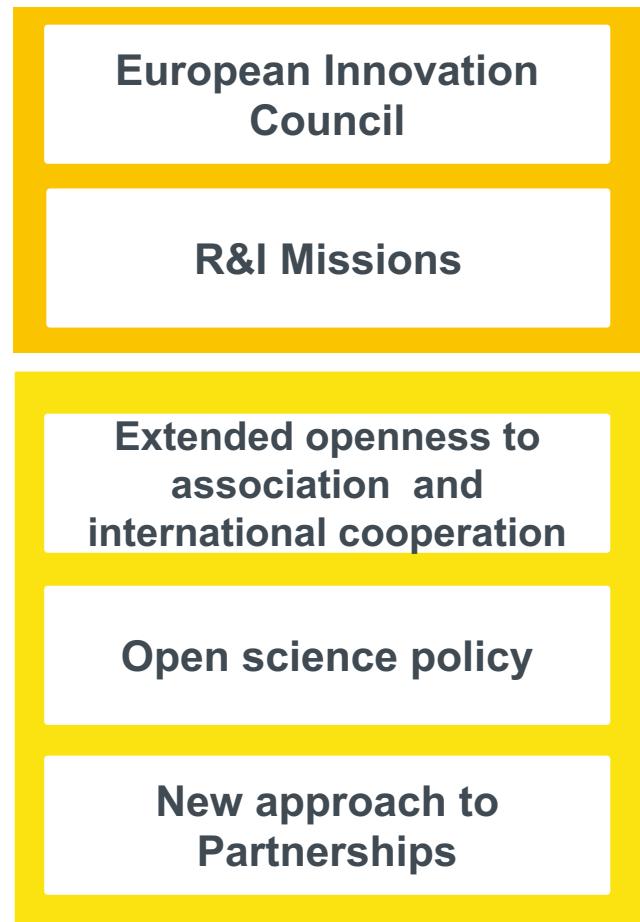
Strengthen international cooperation



Reinforce openness



Rationalise the funding landscape





# Connecting to citizens: R & I Missions

Missions are expected to relate EU's research and innovation actions better to concrete needs of society and of citizens, and thus give them a much stronger visibility and impact.



R&I Missions

Will generate more impact, achieve better outreach, improve cross-sectoral and cross-disciplinary cooperation, encourage a systemic approach and align R&I instruments and agendas in Europe

- A mission will consist of a portfolio of actions intended to achieve **a bold and inspirational as well as measurable goal** within a set timeframe, with impact for science and technology, society and citizens that goes beyond individual actions.

Horizon Europe proposal defines mission characteristics and a few implementation modalities. Concrete missions will be **co-designed with Member States, stakeholders and citizens** during implementation (strategic planning).

# Next steps

Ongoing

Parliament and Council negotiations on EU budget 2021-2027, including budget for Horizon Europe

From 8 June

Parliament and Council negotiations on the basis of the Commission proposal for Horizon Europe

2<sup>nd</sup> half 2018/2019

Strategic programming to prepare first work programmes under Horizon Europe, including co-design of missions and setting up of partnerships

01/01/2021

Envisaged start of Horizon Europe

# Strategic planning to define multiannual work programmes and calls for proposals

**Objectives:** Transparency and stakeholder involvement; impact maximisation; prioritisation; internal programme coherence; synergies with other programmes

## Multiannual Strategic R&I Plan

- \* Multiannual orientations and priorities in one document
- \* Areas for partnerships and missions

Strategic discussions with Member States and European Parliament

Consultation with stakeholders



Work Programmes



National Research Council of Italy

## TOWARDS FP 9

REFLECTION PAPER – October 2016

CNR - Brussels office for international and European Activities  
Michele Guerrini, Luca Moretti, Pier Francesco Moretti, Angelo Volpi

National Research Council of Italy

## HORIZON 2020 MID-TERM REVIEW

Position Paper January 2017



National Research Council of Italy

## RENEW-ESSENCE 2030

Paper on FP9  
December 2017



Michele Guerrini, Luca Moretti, Pierfrancesco Moretti, Angelo Volpi

## MFF for Research & Innovation

For a modern and competitive 2021-2027 EU budget

Dear friends and colleagues,  
as you may know, within few months the EU Council will adopt the next Multiannual Financial Framework, which will set up the whole Union budget for 2021-27, as well as the funds allocation for each one of the main chapters, namely Agriculture policy, Cohesion and Competitiveness.

By defining in which areas the EU should invest more or less over the seven years, the MFF is an expression of political priorities as well as a budgetary planning tool.

Many institutional players of the first two above-mentioned chapters are already catalyzing the general public attention in order to underline the need of a larger budget over the next period.  
As representatives of the most important Research Organizations and Academia, you are perfectly aware that Horizon 2020, for its high ambition and targets, has been severely underfunded (as the mid-term report published in July 2017 clearly evidenced).

It is now the right time for recognizing research and research based innovation as the main drivers of EU competitiveness and growth. This opportunity will be pivotal to rethink R&I policies and investments in Europe, putting research and innovation at the forefront, towards full economic recovery, while aiming at a better welfare for EU citizens.

As Presidents of the main national RPOs, we have been feeling committed to make a step in order to convey the wish of our peers, as well the expectations of those who feel confident that research and innovation deserves a key role in our society.

To this end, we conceived a "Manifesto", which briefly describes the current EU landscape and underlines the need of a more competitive Europe. We hope you could endorse it and share with your colleagues.

To endorse the Manifesto simply fill the form by clicking the blue button here below.

The promoters

### Promoters



National Research  
Council of Italy



CNRS  
CENTRE NATIONAL DE RECHERCHES MÉTALLURGIQUES



CSIC  
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



HELMHOLTZ

RESEARCH FOR GRAND CHALLENGES



Leibniz  
Association

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Academia europea asks for ensuring the budget for the next Framework Program - Academy of Europe doubling FP9 - Read more

National Research Council of Italy

## MISSION EUROPE 2030

Position Paper on mission oriented approach

May 2018



Emendamenti  
alla Proposta  
di Horizon  
Europe –  
Luglio 2018