

Commission proposal for  
**Horizon Europe**

THE NEXT EU RESEARCH & INNOVATION  
PROGRAMME (2021 – 2027)

#HorizonEU

KRZYSZTOF NALEPA

20 lat Polski w Programach Ramowych Badań i  
Innowacji UE. Horyzont 2020 - nowe otwarcie

7 czerwca 2018



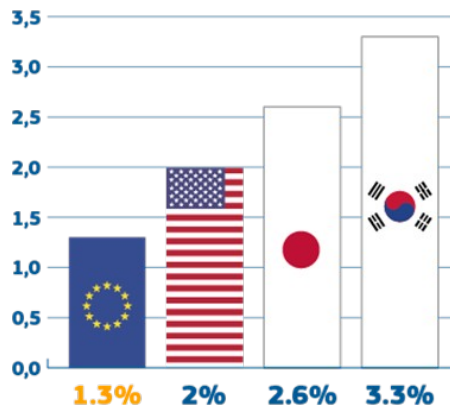
# Europe has world-class research and strong industries

Our knowledge and skills are our main resources.

→ 7% of the world's population

→ 20% of global R&D

→ 1/3 of all high-quality scientific publications



1.3%  
EU business  
R&D  
investment

but Europe fails to transform leadership in science into leadership in innovation and entrepreneurship

# Horizon Europe

is the Commission proposal for a **€ 100 billion** research and innovation funding programme for seven years (2021-2027)



to strengthen the EU's scientific and technological bases



to boost Europe's innovation capacity, competitiveness and jobs



to deliver on citizens' priorities and sustain our socio-economic model and values

Additional **€ 4.1 billion** are proposed to be allocated for defence research, which is specified in the European Defence Fund that is subject to a distinct and complementary proposal.

# Horizon Europe: investing in R&I to shape our future

- The vision:
  - “ a Europe that protects,  
a Europe that empowers,  
a Europe that defends”  
*Jean-Claude Juncker*
- Tackling **climate change**  
(35 % budgetary target)
- Helping to achieve **Sustainable Development Goals**
- Boosting the Union's **competitiveness and growth**

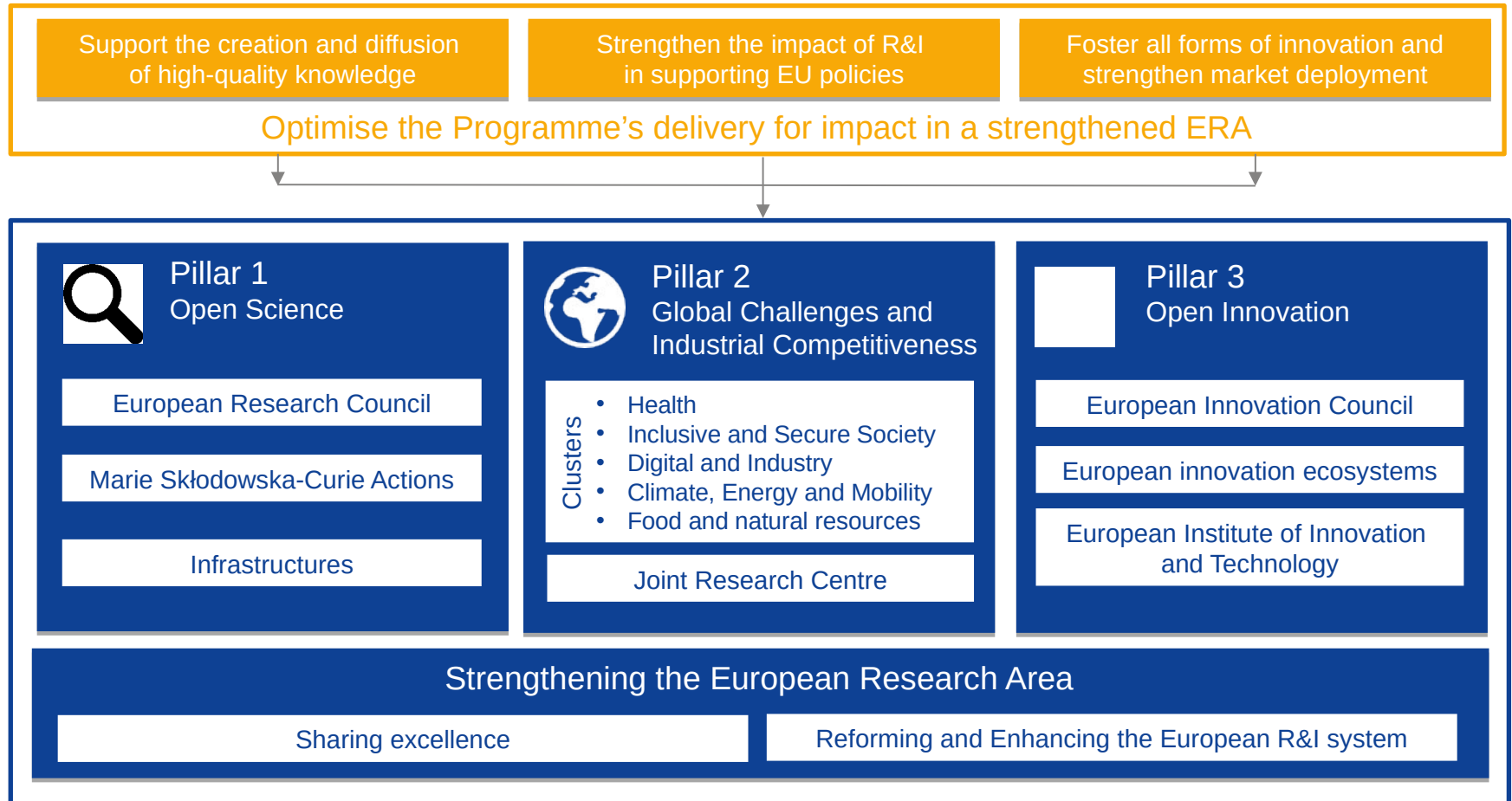


Credits: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

# Horizon Europe – What?

# Horizon Europe evolution not revolution!

## Specific objectives of the Programme



# OPEN SCIENCE:

reinforcing and extending the excellence of the Union's science base

## European Research Council

- Frontier research by the best researchers and their teams

## Marie Skłodowska-Curie Actions

- Equipping researchers with new knowledge and skills through mobility and training

## Research Infrastructures

- Integrated and inter-connected world-class research infrastructures

# Global Challenges & Industrial Competitiveness:

boosting key technologies and solutions underpinning EU policies & Sustainable Development Goals

<b>Clusters</b> implemented through usual calls, missions & partnerships	2021-24
Health	
Inclusive and Secure Societies	
Digital and Industry	
Climate, Energy and Mobility	
Food and Natural Resources	
<b>Joint Research Centre</b> supports European policies with independent scientific evidence & technical support throughout the policy cycle	



# OPEN INNOVATION:

stimulating market-creating breakthroughs and ecosystems conducive to innovation

## European Innovation Council

- Support to innovations with breakthrough and market creating potential

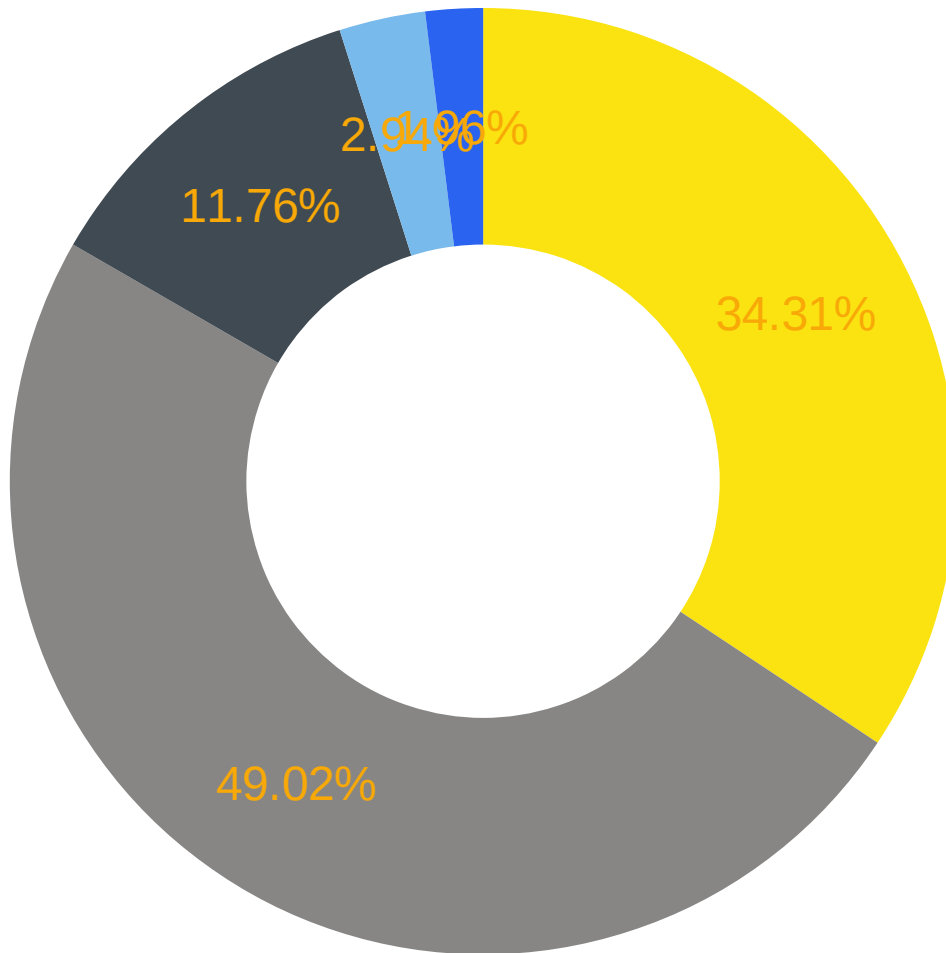
## European innovation ecosystems

- Connecting with regional and national innovation actors

## European Institute of Innovation and Technology (EIT)

- Bringing key actors (research, education and business) together around a common goal for nurturing innovation

# Budget\*



- Open Science
- Global Challenges & Ind. Competitiveness
- Open Innovation
- Strengthening ERA
- Euratom 2021-2025

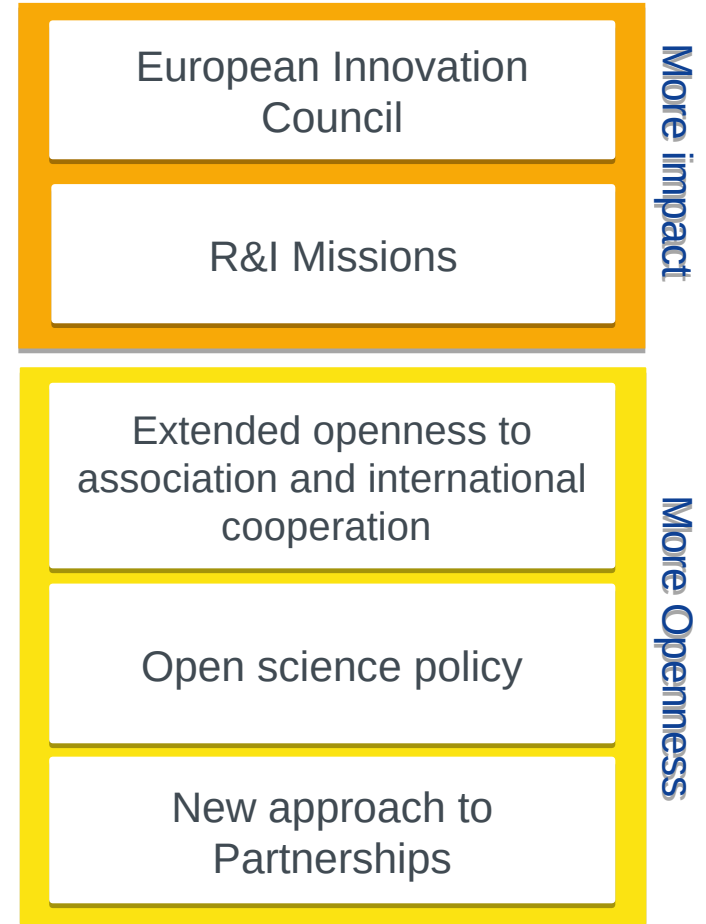
\* In addition, this envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

# Horizon Europe – What's new?

# Key Novelties

[See Impact Assessment]

-  Support breakthrough innovation →
-  Create more impact through mission-orientation and citizens' involvement →
-  Strengthen international cooperation →
-  Reinforce openness →
-  Rationalise the funding landscape →





# European Innovation Council

The EIC will support innovations with breakthrough and disruptive nature and scaleup potential that are too risky for private investors.

European  
Innovation Council

**Helping innovators create markets of the future,  
leverage private finance, scale up their  
companies,  
Innovation centric, risk taking & agile, pro-  
active management and follow up**

Two complementary instruments bridging the gap from idea to investable project

**Pathfinder:** grants  
(from early technology  
to pre- commercial)

**Accelerator:**  
grants & blended finance  
(from pre-commercial  
to market & scale-up)



# R&I Missions

R&I Missions

**Connecting to citizens:** Missions will relate EU's research and innovation to society and citizens' needs, with strong visibility and impact

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 criteria

Specific missions will be **co-designed with Member States, stakeholders and citizens** and programmed within the Global Challenges and Industrial Competitiveness pillar (drawing on inputs from other pillars)



# International Cooperation effort of unprecedented scale

International  
Cooperation

Will ensure effective tackling of global societal challenges; access to the world's best talents, expertise and resources; enhanced supply and demand of innovative solutions

## Extended openness to association

- Third countries with good capacity in science, technology and innovation
- Taking into account objective of driving economic growth in Europe through innovation
- General opening for international participation
- Intensified targeted actions (flagship initiatives, joint calls, etc.)



# Open Science across the programme

- Encouraging uptake of **Open Science practices** through earmarked funding, including to enhance **researcher skills** in Open Science and support **reward systems** that promote it
- **FAIR** (findable, accessible, interoperable, re-usable) and **Open Data**: research data is open by default (with opt-out possibilities) and a data management plan is obligatory
- **Open Access** to publications: no reimbursement of article processing charge (APC) for publications in hybrid journals
- **Monitoring system** to ensure compliance with Horizon Europe provisions





# New approach to European Partnerships

New generation of objective-driven and more ambitious partnerships in support of agreed EU policy objectives

## Key features

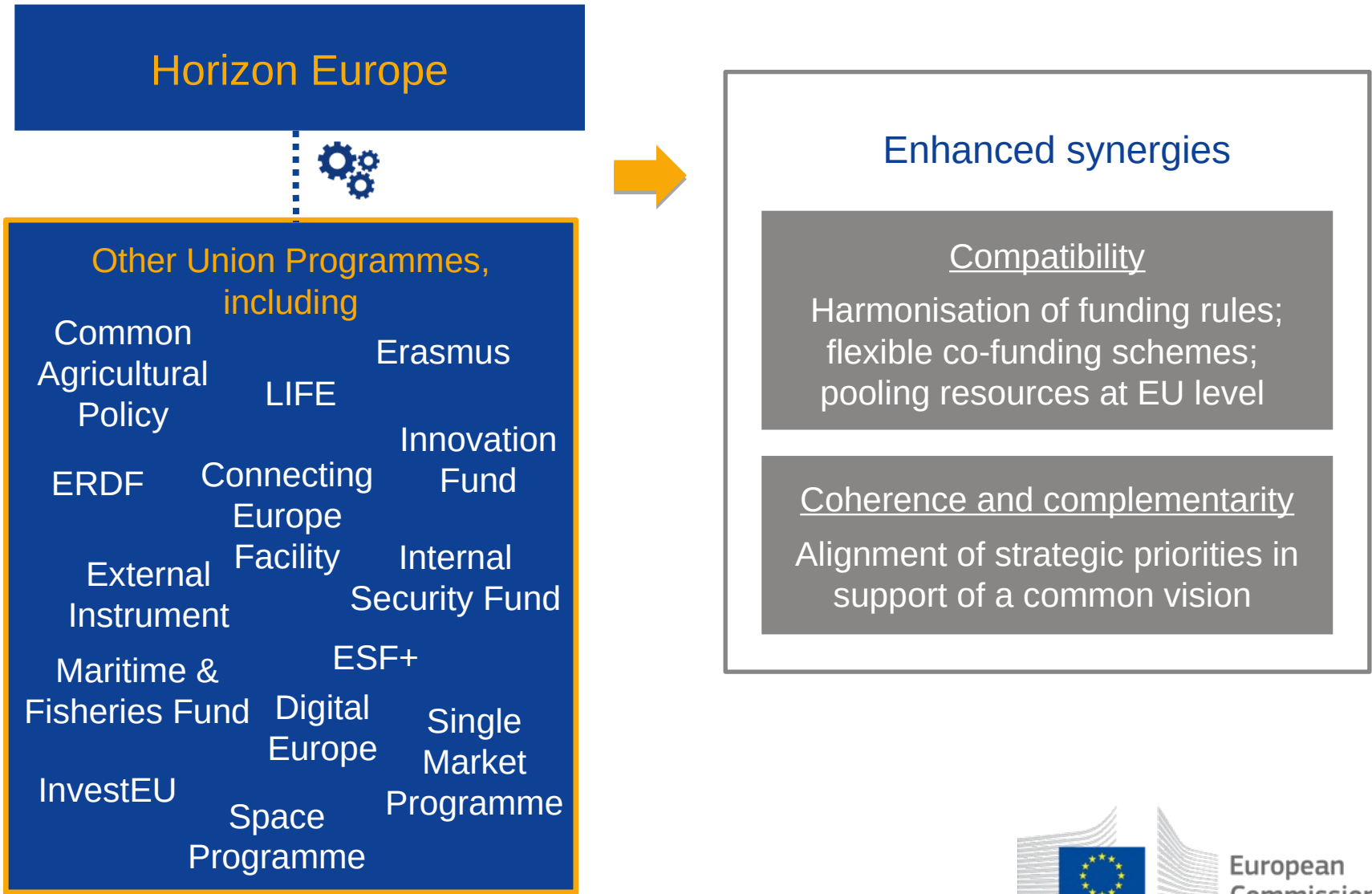
- **Simple architecture and toolbox**
- **Coherent life-cycle approach**
- **Strategic orientation**

Based on Memoranda of Understanding / contractual arrangements; implemented independently by the partners and by Horizon Europe

Based on a joint programme agreed by partners; commitment of partners for financial and in-kind contributions & financial contribution by Horizon Europe

Based on long-term dimension and need for high integration; partnerships based on Articles 185 / 187 of TFEU and the EIT-Regulation supported by Horizon Europe

# Synergies with other Union programmes



# Next steps

