

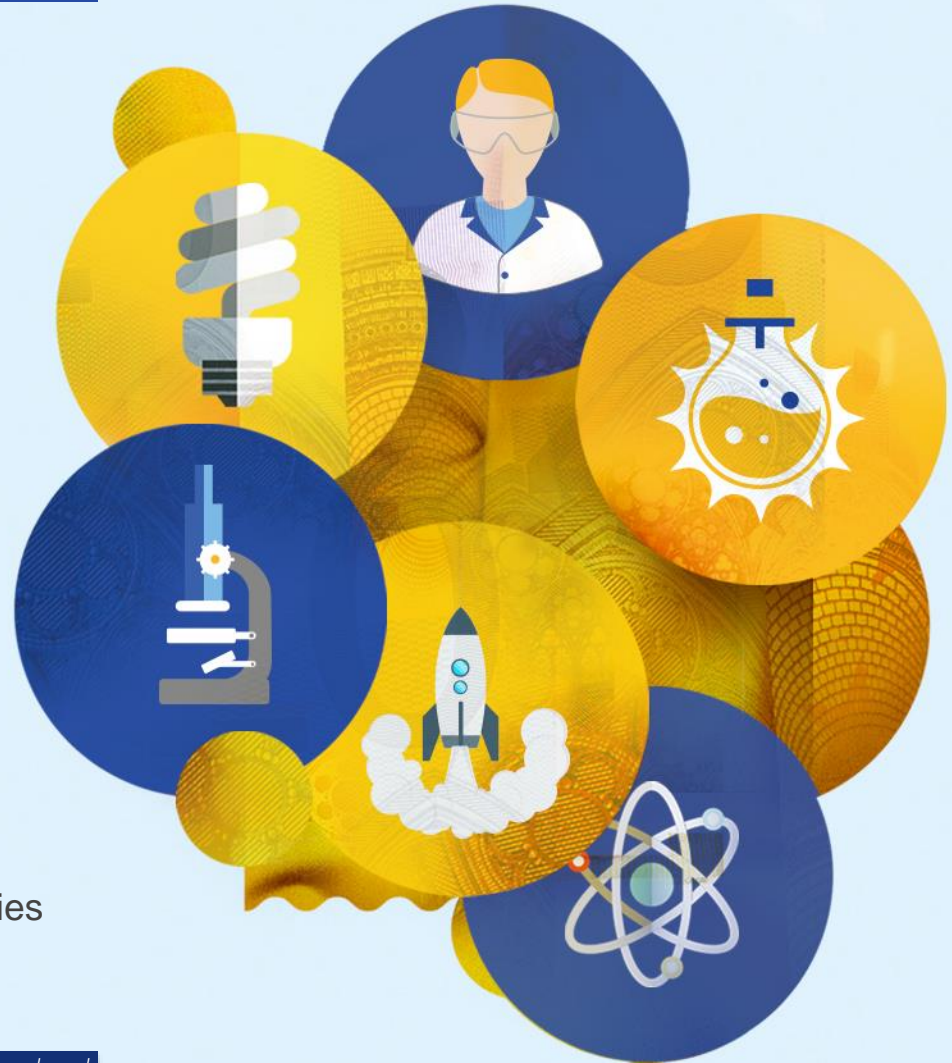
Horizon Europe

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

#HorizonEU

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European Commission
Directorate General for Maritime Affairs and Fisheries

EMFF expert group 23.9.2020

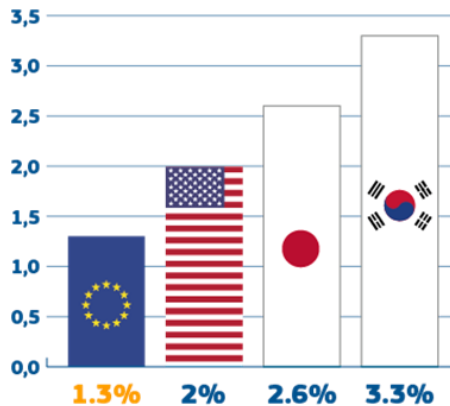


Horizon Europe - Investing to shape our future

While benefiting from 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

...Europe can do better at transforming this into leadership in innovation and entrepreneurship

Horizon Europe

The ambitious EU research and innovation framework programme (2021-2027)



to strengthen the EU's scientific and technological bases and the European Research Area (ERA)



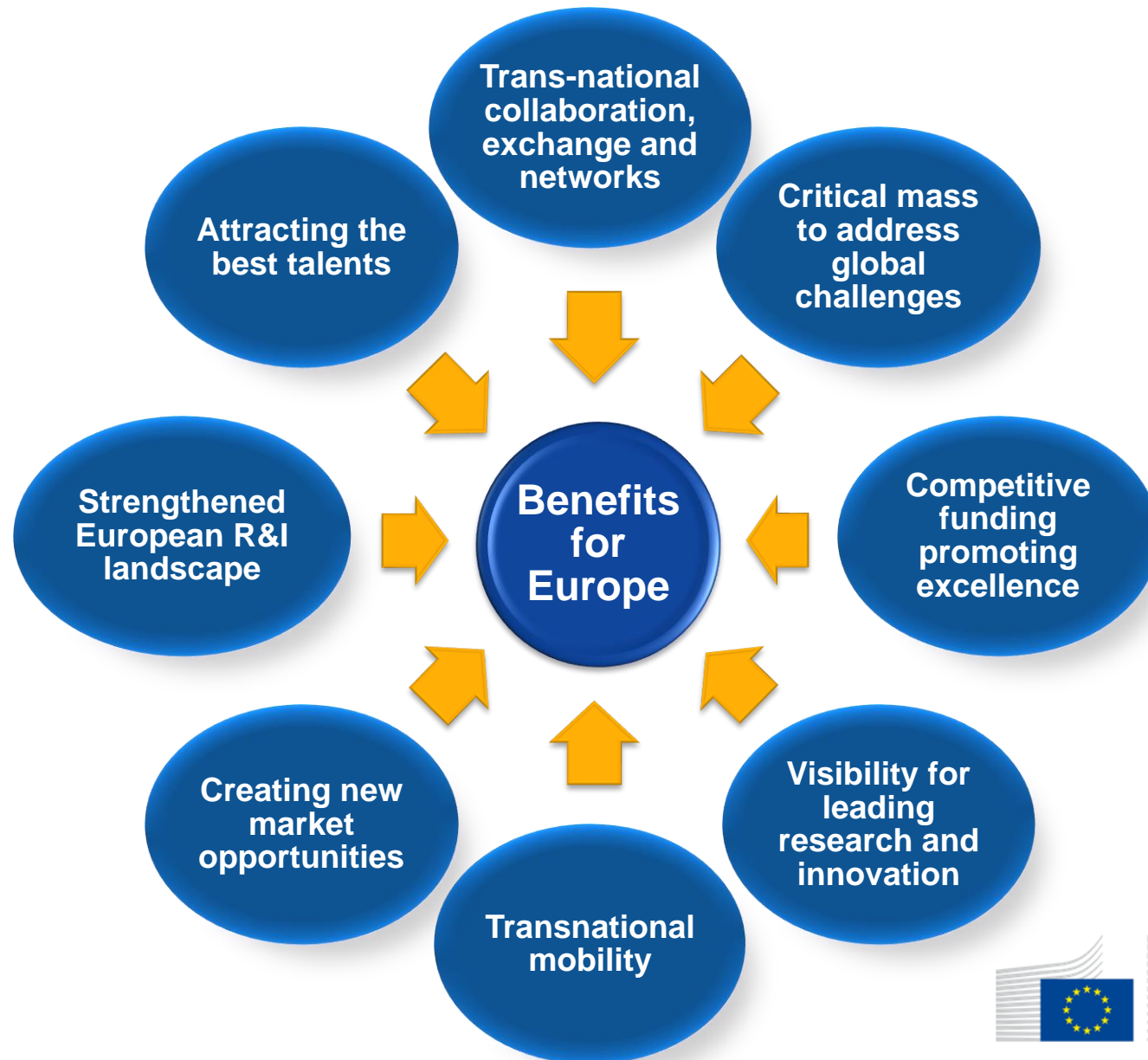
to boost Europe's innovation capacity, competitiveness and jobs



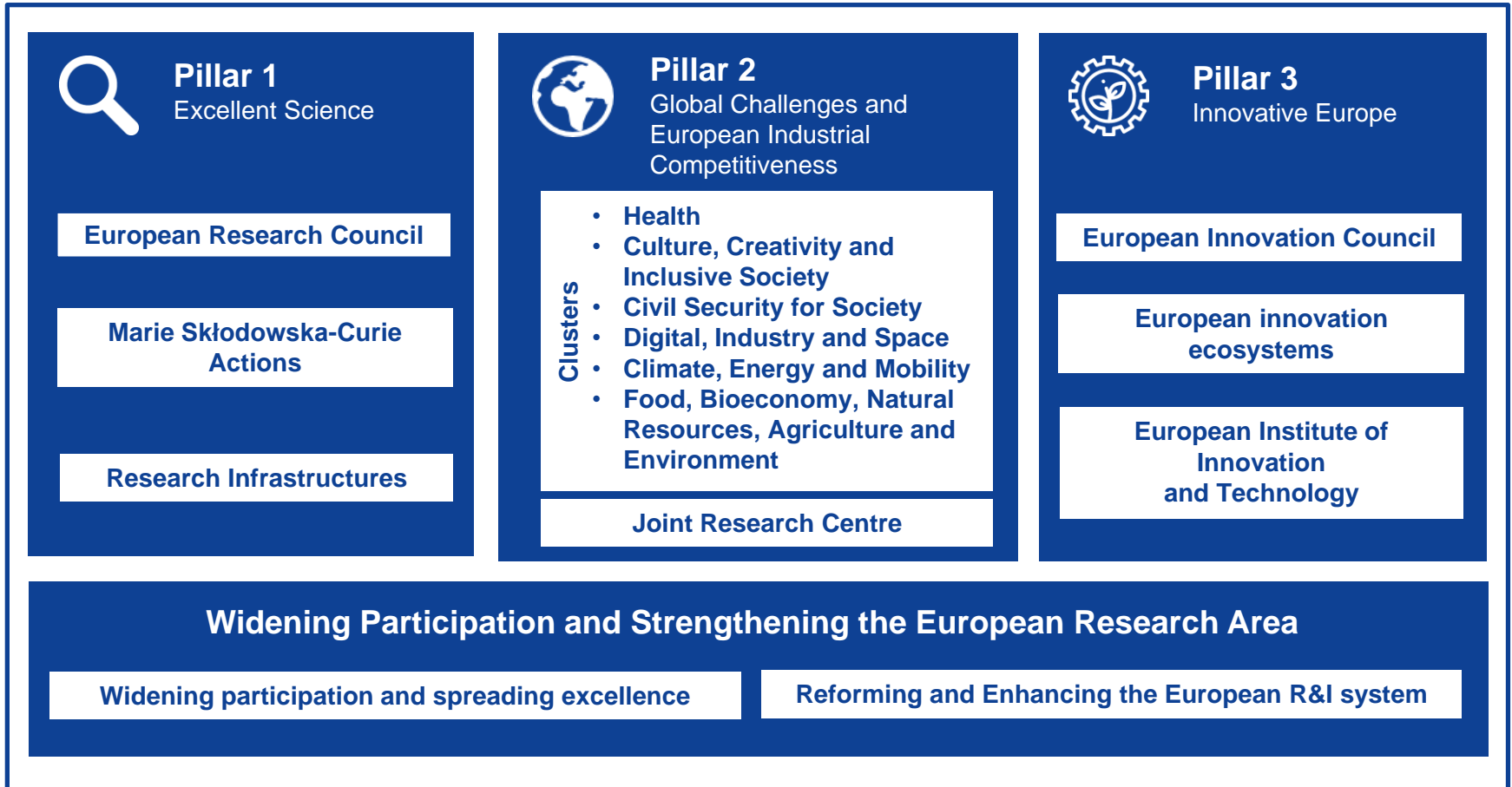
to deliver on citizens' priorities and sustain our socio-economic model and values

The Commission proposed a budget of € 100 billion for Horizon Europe.

Added value through Horizon Europe:



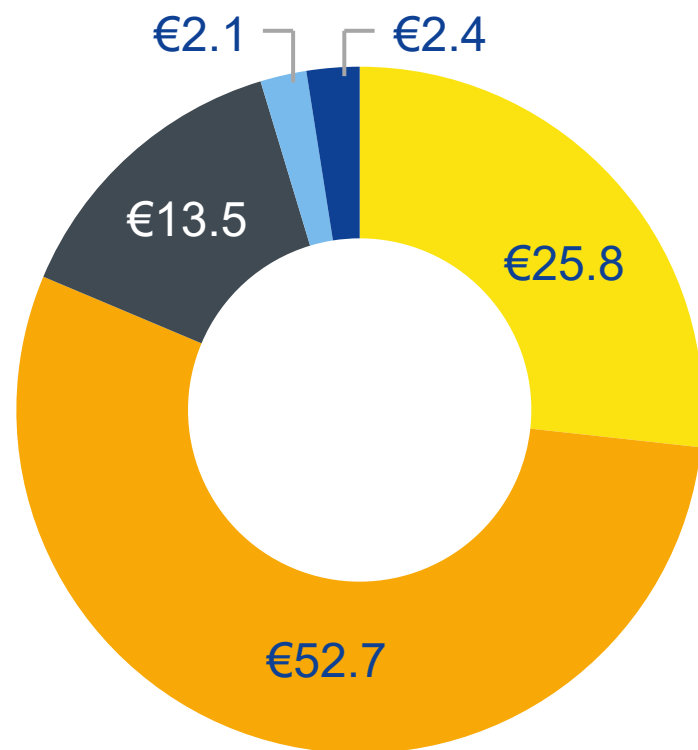
Horizon Europe: Preliminary structure



Clusters in 'Global Challenges and European Industrial Competitiveness'

Clusters	Areas of intervention	
Health	<ul style="list-style-type: none"> • Health throughout the life course • Non-communicable and rare diseases • Tools, technologies and digital solutions for health and care, including personalised medicine 	<ul style="list-style-type: none"> • Environmental and social health determinants • Infectious diseases, including poverty-related and neglected disease • Health care systems
Culture, creativity and inclusive society	<ul style="list-style-type: none"> • Democracy and Governance • Social and economic transformations 	<ul style="list-style-type: none"> • Culture, cultural heritage and creativity
Civil security for society	<ul style="list-style-type: none"> • Disaster-resilient societies • Protection and Security 	<ul style="list-style-type: none"> • Cybersecurity
Digital, Industry and space	<ul style="list-style-type: none"> • Manufacturing technologies • Advanced materials • Next generation internet • Circular industries • Space, including Earth Observation • Emerging enabling technologies 	<ul style="list-style-type: none"> • Key digital technologies, including quantum technologies • Artificial Intelligence and robotics • Advanced computing and Big Data • Low-carbon and clean industry • Emerging enabling technologies
Climate, Energy and Mobility	<ul style="list-style-type: none"> • Climate science and solutions • Energy systems and grids • Communities and cities • Industrial competitiveness in transport • Smart mobility 	<ul style="list-style-type: none"> • Energy supply • Buildings and industrial facilities in energy transition • Clean, safe and accessible transport and mobility • Energy storage
Food, bioeconomy, natural resources, agriculture and environment	<ul style="list-style-type: none"> • Environmental observation • Agriculture, forestry and rural areas • Circular systems • Food systems 	<ul style="list-style-type: none"> • Biodiversity and natural resources • Seas, oceans and inland waters • Bio-based innovation systems in the EU Bioeconomy

Commission proposal for budget: €100 billion* (2021-2027)

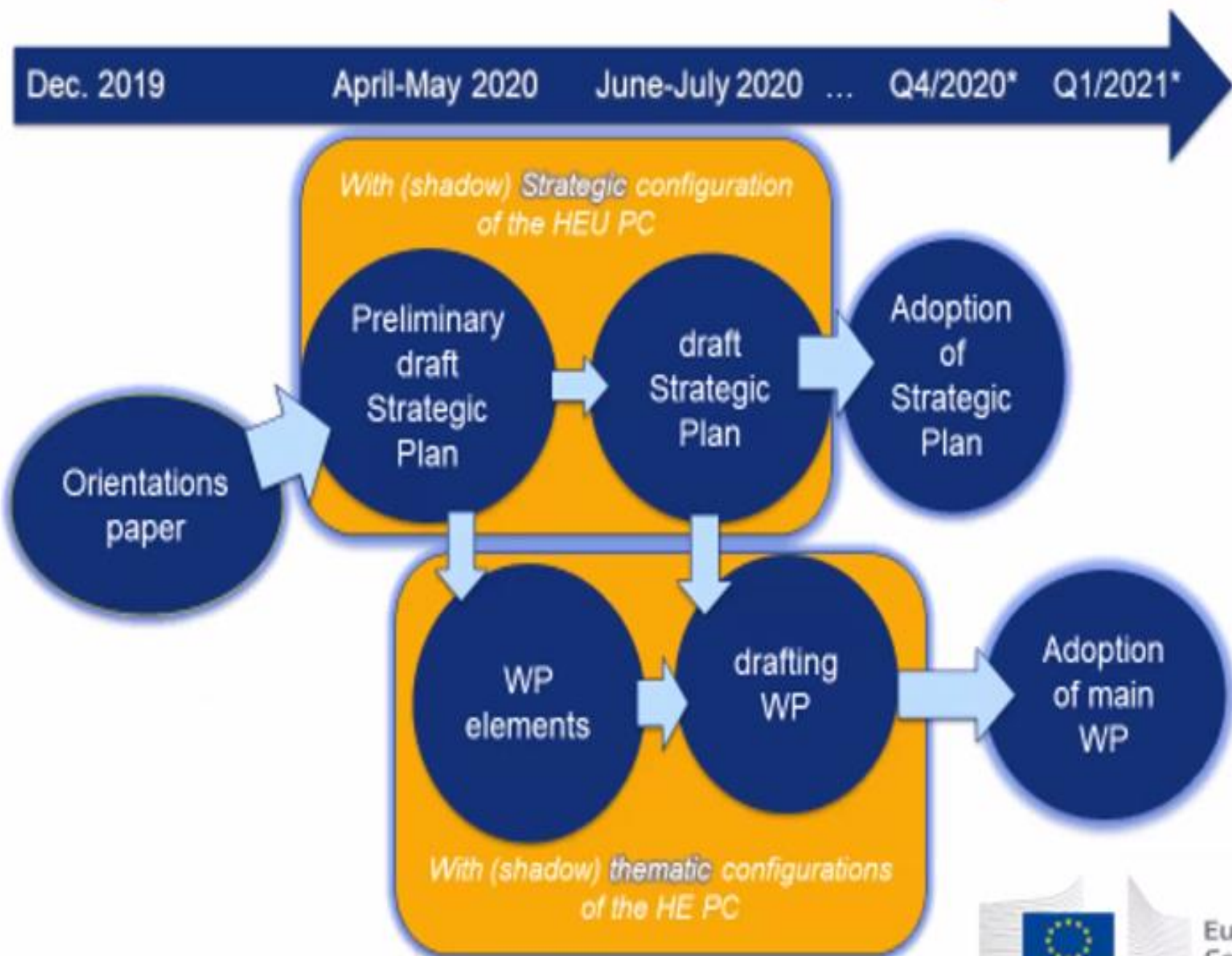


€ billion
In current prices

- Excellent Science
- Global Challenges & European Ind. Comp.
- Innovative Europe
- Widening Part. & ERA
- Euratom

* This envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

Overall timeline for Horizon Europe



Horizon Europe – Central elements

Lessons Learned

from Horizon 2020 Interim Evaluation

Key Novelties

in Horizon Europe



Support breakthrough innovation



European Innovation Council



Create more impact through mission-orientation and citizens' involvement



R&I Missions



Strengthen international cooperation



Extended association possibilities



Reinforce openness



Open science policy



Rationalise the funding landscape



New approach to Partnerships



Encourage participation



Spreading Excellence



European Innovation Council

Support to innovations with breakthrough and disruptive nature and scale up potential that are too risky for private investors (**70% of the budget earmarked for SMEs**)

**European
Innovation Council
– a one-stop-shop**

Helping innovators create markets of the future, leverage private finance, scale up their companies, Innovation centric, risk taking & agile, proactive 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 only & blended finance
(from pre-commercial
to market & scale-up)



R&I Missions

R&I Missions

Relating EU's research and innovation better to society and citizens' needs; with strong visibility and impact

A mission is a portfolio of actions across disciplines intended to achieve a **bold and inspirational and measurable goal** within a set timeframe, with **impact** for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.

Horizon Europe defines mission characteristics and elements of governance, and 5 missions areas.

Specific missions will be programmed within the Global Challenges and European Industrial Competitiveness pillar (drawing on inputs from other pillars)

Adaptation to climate change, including societal transformation



Mission areas

Healthy oceans, seas, coastal and inland waters



Cancer

Climate-neutral and smart cities



Soil health and food



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**

Co-programmed

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

Co-funded

Based on a joint programme agreed and implemented by partners; commitment of partners for financial and in-kind contributions

Institutionalised

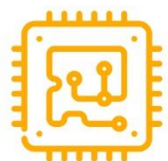
Based on long-term dimension and need for high integration; partnerships based on Articles 185 / 187 of TFEU and the EIT-Regulation supported by Horizon Europe

Health innovations



Sustainable bio-based solutions

Key digital and enabling technologies



Hydrogen and sustainable energy storage

Metrology



Clean, connected mobility

EU air traffic, aviation and rail



Innovative SMEs

Areas for possible Institutionalised European partnerships (based on Article 185/7 TFEU)

Possible Co-funded / co-programmed partnerships

Safe and Sustainable Food System for People, Planet & Climate

Seafood systems including aquaculture

Biodiversity

Marine organisms, marine ecosystems

Waterborne transport



A climate neutral, sustainable and productive **Blue economy**

All marine/maritime aspects are relevant

Biomonitoring

Measuring the impact of the marine environment on
human health

Water4All

Blue bioeconomy, freshwater aquaculture

Horizon Europe – Synergies with EMFF

Commission proposal for synergies with other Union programmes

Horizon Europe



Other Union Programmes, including

Common Agricultural Policy
ERDF
External Instrument
Maritime & Fisheries Fund
InvestEU

LIFE
Connecting Europe Facility
ESF+
Digital Europe
Space Programme

Erasmus
Innovation Fund
Internal Security Fund
Single Market Programme



Enhanced synergies

Compatibility

Harmonisation of funding rules; flexible co-funding schemes; pooling resources at EU level

Coherence and complementarity

Alignment of strategic priorities in support of a common vision

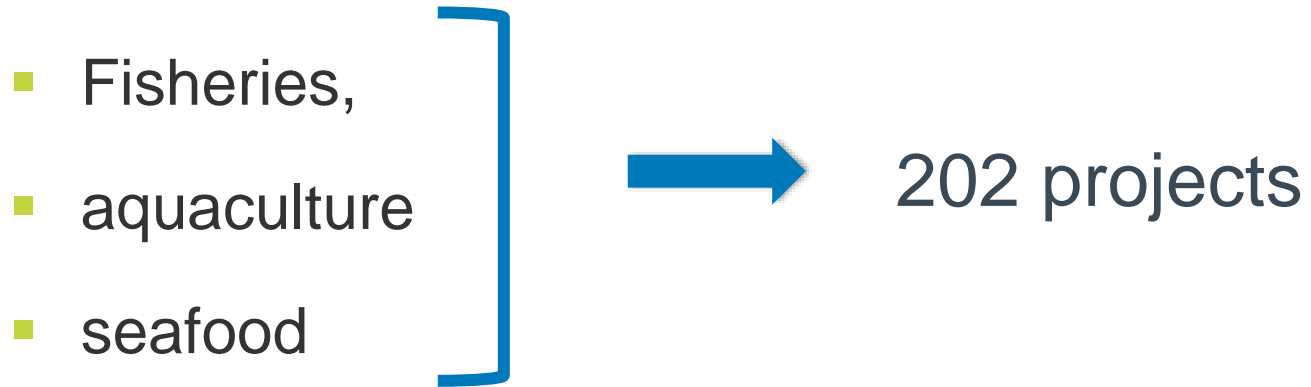
EMFF OBJECTIVES

4 priorities:

1. Fostering sustainable fisheries and the **conservation of marine biological resources**
2. Contributing to **food security** in the Union through competitive and sustainable aquaculture and markets
3. Enabling the growth of a sustainable blue economy and fostering **prosperous coastal communities**
4. Strengthening **international ocean governance** and enabling safe, secure, clean and sustainably managed seas and oceans



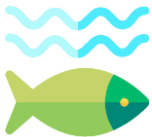
H2020 related projects



€398 million EC contribution in 7 years, €480 million in total



EMFF: €9,8 m. / year on scientific advice and studies



Horizon Europe provisions (annex IV)

- "2. Synergies with the European Maritime and Fisheries Fund (EMFF) will ensure that:
 - (a) the Programme and the EMFF are largely **interlinked** as **EU research and innovation needs in the field of marine and maritime policy** will be translated through the Programme's strategic research and innovation planning process;
 - (b) the **EMFF supports the rolling out of novel technologies and innovative products**, processes and services, in particular those resulting from the Programme in the fields of marine and maritime policy; the EMFF also promotes ground data collection and data processing and disseminates relevant actions supported under the Programme, which in turn contributes to the implementation of the Common Fisheries Policy, the EU Maritime Policy and International Ocean Governance."



Corresponding EMFF provisions

EMFF proposal COM(2018) 390 final

- Under direct and indirect management, the EMFF will focus on the enabling conditions for a sustainable blue economy through [...] the **enhancement of the transfer and uptake of research, innovation and technology** in the **sustainable blue economy** [...] and the development of **project pipelines and innovative financing instruments**.
- Under direct management, the EMFF will develop **synergies and complementarities with other relevant Union funds** and programmes.
- The Union needs [...] to strengthen **international ocean research** and data.



research

**Horizon 2020 >
Horizon Europe**

investigate, develop
and test new
products and
services

innovation

BlueInvest

consolidate
suppliers and
customers
demonstration >
production

market

**Green Deal
resilience**



**Thank you for your
attention!**