

Horizon Europe

*The Next EU Research & Innovation
Investment Programme (2021-2027)*

24-01-2020

Murcia

Aida Díaz



Generalitat de Catalunya
**Departament d'Empresa
i Coneixement**



**Agència
de Gestió
d'Ajuts
Universitaris
i de Recerca**

EU Research & Innovation Programmes



 €80 billion



€100 billion (EC
Proposal)

Evolution and not revolution

- Boosting the Union's competitiveness and growth
- Helping to achieve Sustainable Development Goals
- Focusing on **cutting-edge research and innovation** projects
- deliver on **citizens' priorities** and sustain our socio-economic model and values
- Tackling **climate change** (35 % budgetary)
- Excellence; Openness; Impact

Lessons learned From Horizon 2020 Interim Evaluation



Support breakthrough
innovation



Key Novelties in Horizon Europe

***European Innovation
Council***



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)

Lessons learned From Horizon 2020 Interim Evaluation



Create more impact through mission-oriented and citizens' involvement



Key Novelties in Horizon Europe

R&I Missions



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)



Mazzucato Report on missions

Adaptation to climate change, including societal transformation

Healthy
oceans,
seas,
coastal
and inland
waters



**Mission
areas**



Cancer

Climate-neutral
and smart cities



Soil health
and food

Source: https://ec.europa.eu/info/files/horizon-europe-investing-shape-our-future_en

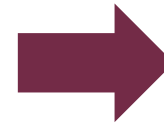
Mission Board Members:

https://ec.europa.eu/info/sites/info/files/research_and_innovation/strategy_on_research_and_innovation/documents/ec_rtd_members-mission-boards_072019.pdf

Lessons learned

From Horizon 2020 Interim Evaluation

✓ Rationalise the funding landscape



Key Novelties in Horizon Europe

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 by partners; commitment of partners for financial and in kind contributions & financial contribution by Horizon Europe

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

X JPI; PPP; JTI; KICS; JU; ERANET COFUND; etc

✓ Research and Innovation Actions (RIA); Innovation Actions (IA); Support and Research actions (CSA); Other (ERC grants, MSCA, ERANET COFUND, etc)

**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)**

Lessons learned From Horizon 2020 Interim Evaluation

Key Novelties in Horizon Europe



**Strengthen
International
cooperation**



**Extended
association
possibilities**



International Cooperation

**International
Cooperation**

Tackling together 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.)

Lessons learned From Horizon 2020 Interim Evaluation

Key Novelties in Horizon Europe



Reinforce openness



Open Science Policy



Open Science across the programme

Open Science

Better dissemination and exploitation of R&I results and support to active engagement of society

Mandatory Open Access to publications: beneficiaries shall ensure that they or the authors retain sufficient intellectual property rights to comply with open access requirements

Open Access to research data ensured: in line with the principle "as open as possible, as closed as necessary"; Mandatory Data Management Plan for FAIR (Findable, Accessible, Interoperable, Re-usable) and Open Research Data

- Support to researcher skills and reward systems for open science
- Use of European Open Science Cloud

Lessons learned From Horizon 2020 Interim Evaluation



Encourage participation

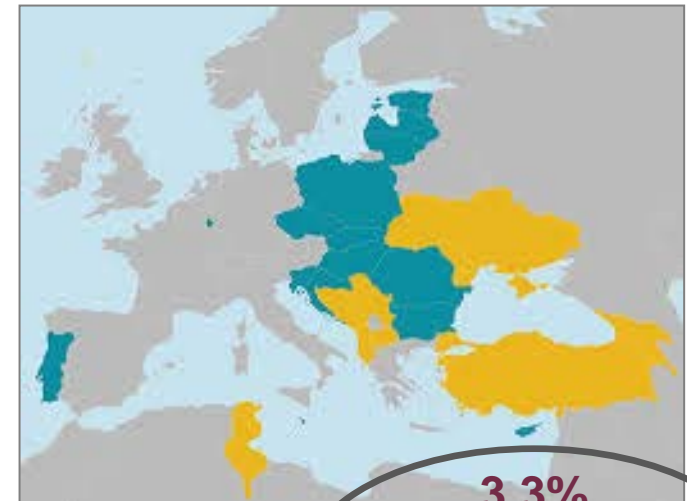
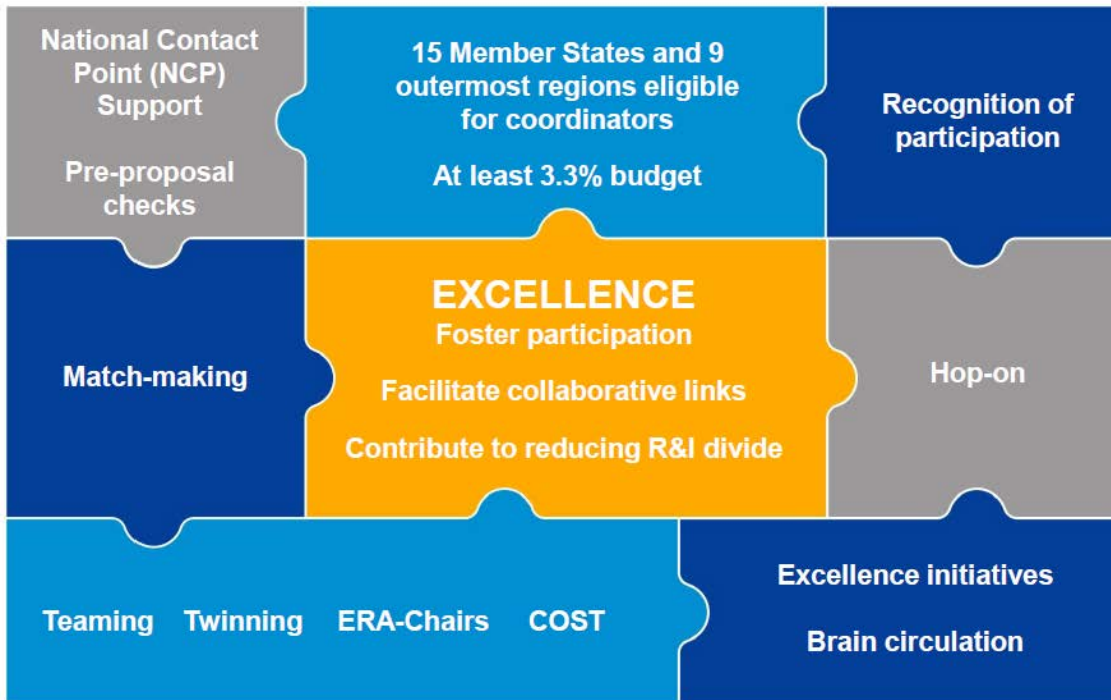


Key Novelties in Horizon Europe

Spreading excellence



Widening participation/spreading excellence



3,3%
Horizon Europe Budget

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+

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

Key impact pathways to track progress

1. Creating high-quality new knowledge
2. Strengthening human capital in R&I
3. Fostering diffusion of knowledge and Open Science

**Scientific
Impact**



4. Addressing EU policy priorities & global challenges through R&I
5. Delivering benefits & impact via R&I missions
6. Strengthening the uptake of R&I in society

**Societal
Impact**

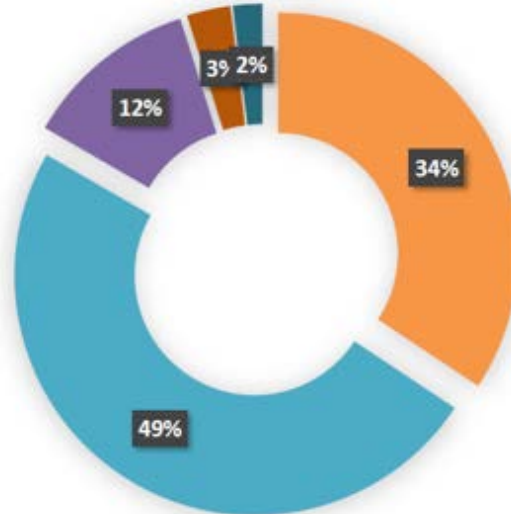
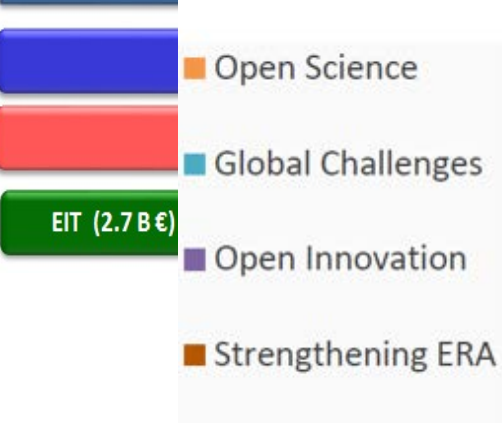
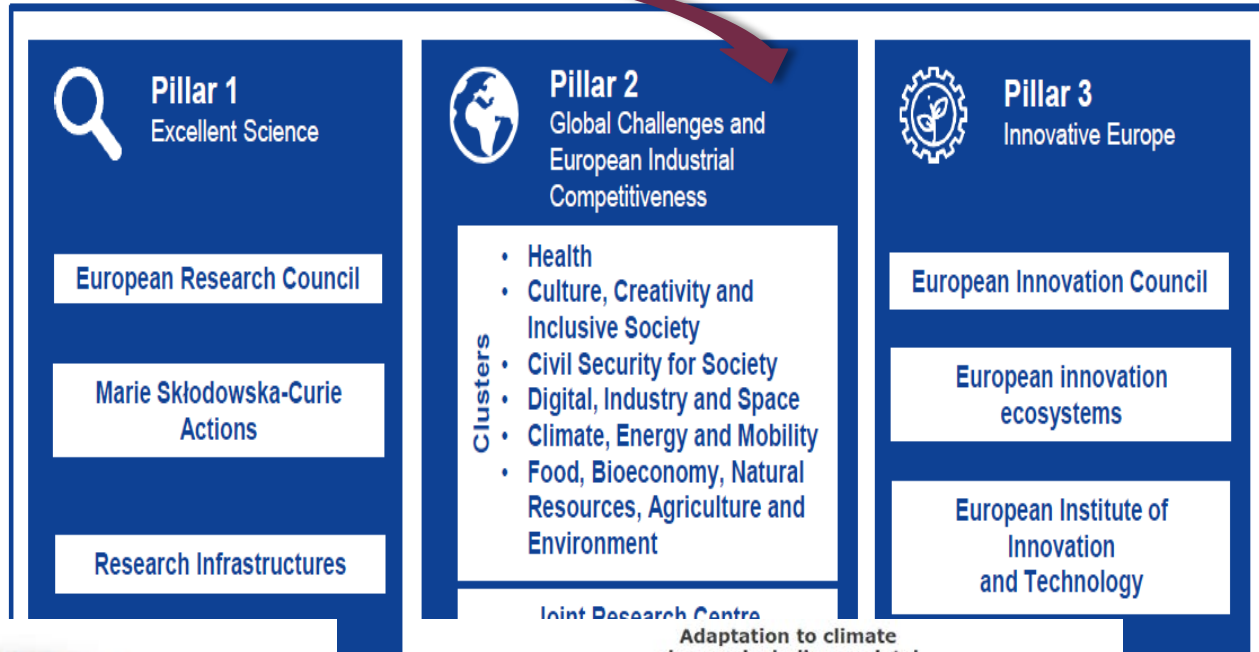
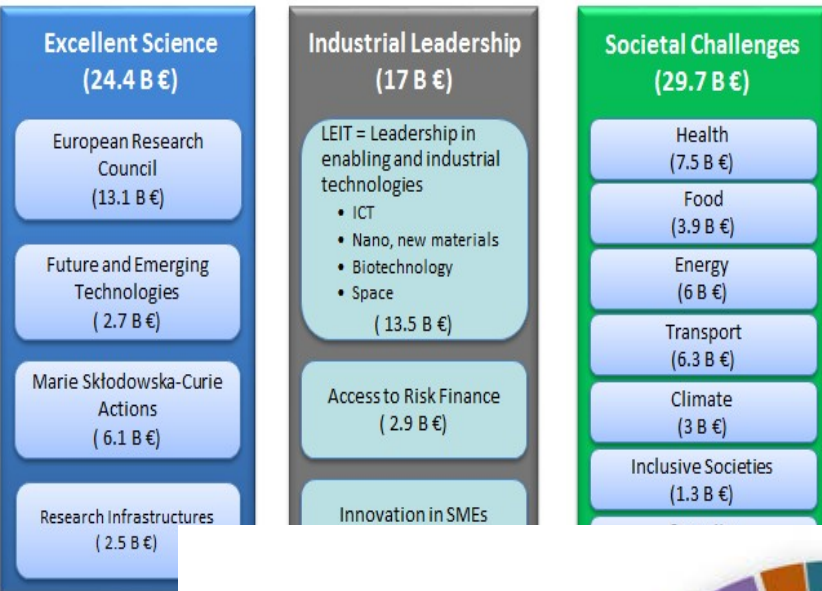


7. Generating innovation-based growth
8. Creating more and better jobs
9. Leveraging investments in R&I

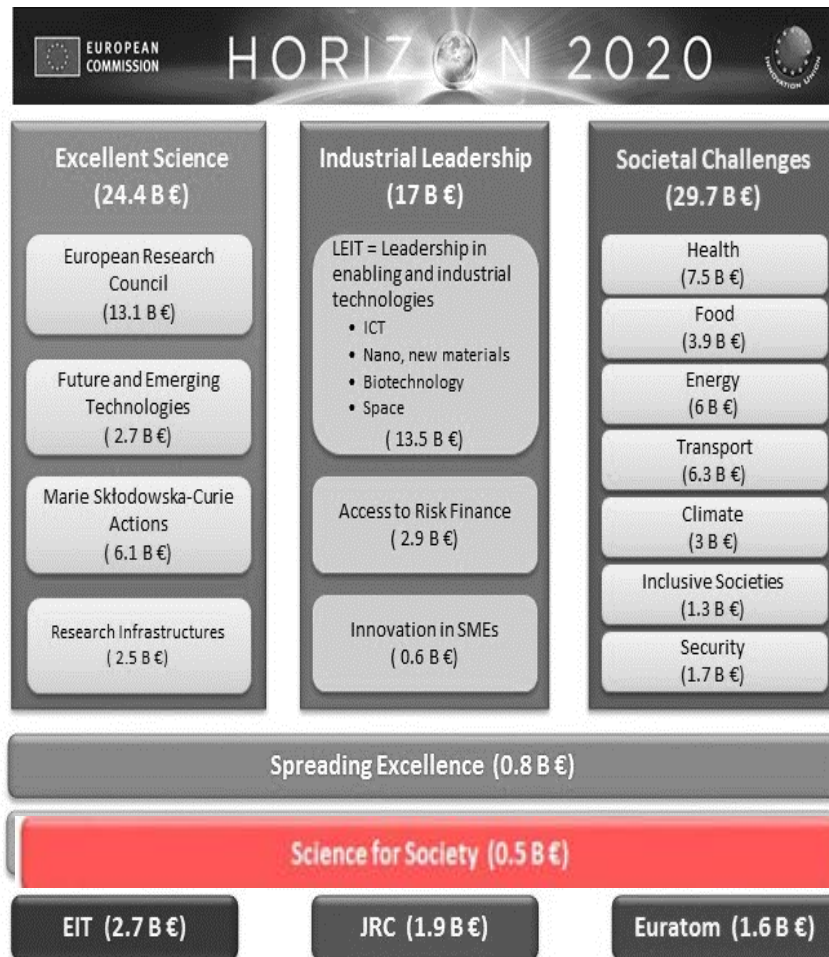
**Economic
Impact**



Programme Structure



H2020



Horizon Europe



RRI – Cross-cutting issue in Horizon Europe

Widening Participation and Strengthening the European Research Area

- Widening participation and spreading excellence
- New phase on the development of the European Research Area and synergies with the European Higher Education Area
- Open Science, innovative entrepreneurial practices, life-long-learning and upskilling talent and breaking down disciplinary and inter-sectoral research barriers to match emerging business and societal needs.

Co-design towards the first strategic plan for Horizon Europe. A report on the web-based consultation and on the European Research and Innovation Days.

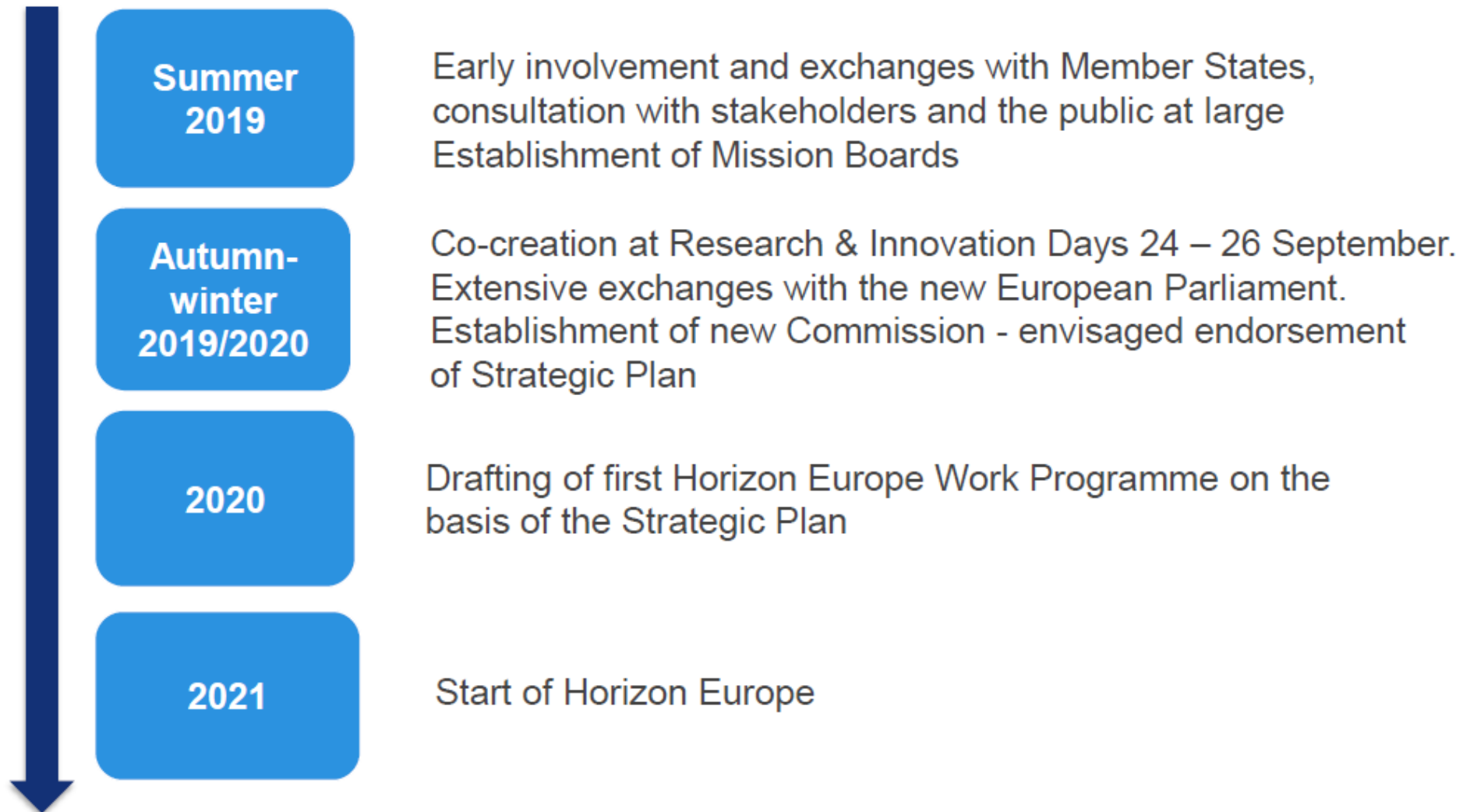
*“A significant number of responses stated that high levels of citizen participation in codesign (e.g. agenda setting) and co-creation (e.g. **citizen science**, user-led innovation) are required to meet the United Nation’s Sustainable Development Goals. **They stressed that research and innovation must take into account the needs, values and expectations of citizens, in line with Responsible Research and Innovation (RRI) and seek to go beyond technological solutions to those that encompass social, economic and governance issues.** These responses called for high levels of inclusion of society in research and innovation, specific actions to improve **science education** (e.g. working closely with schools and other educational establishments), the joint involvement in actions of researchers, businesses, policy makers and citizens (“quadruple helix”) to arrive at solutions that are adapted to societal needs, and interactive and innovative approaches to communicating and deliberating about innovation and science. Finally, these responses reminded that there is a large body of knowledge and existing networks that have developed from the Science and Society (FP6), Science in Society (FP7) and Science with and for Society (Horizon 2020) programmes, which should be leveraged and valorised to help ensure Horizon Europe’s success”. (See page 37)*

“In addition to that there now seems to be an awareness that the wording with respect to gender issues is crucial when it comes to the integration of gender into research and innovation: there is now a more pronounced differentiation between **‘gender equality’** and **‘the gender dimension’** (See page 36 & 37)”

Simple and fit for purpose rules

- Further alignment to the Financial Regulation.
- Ensuring **continuity and consistency** for beneficiaries by maintaining:
 - ✓ Attractive H2020 funding model, including up to 100% funding rate of direct costs.
 - ✓ Single set of rules principle.
 - ✓ Lump sums (only in specific projects).
- Increased use of **simplified forms of grants** where appropriate (building on the H2020 lump sum pilot experience).
- Broader acceptance of **usual cost accounting practices**.
- Enhanced **cross-reliance on audits** benefiting beneficiaries taking part in several Union programmes.
- Same **evaluation criterion** as H2020 (Excellence; Impact; Implementation (“quality and efficiency of the implementation”)); possibility of interviews with applicants. posibilidad de incluir entrevistas con los solicitantes.
- **Ethical Review** (increase of controls when submitting the proposals).

Steps towards the first Horizon Europe work programme



European Commission 2014-2019

**DG RESEARCH &
INNOVATION**

DG CONNECT (ICT)

DG Culture and Education

...



Carlos Moedas

2019-2024

**DG Innovation, Research,
Culture, Education and
Youth**

- DG Research and Innovation
- DG Culture and Education

...



Mariya Gabriel

Information

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<https://www.facebook.com/EUScienceInnov/>

<https://www.facebook.com/cmoedas/>



Horizon Europe

<http://ec.europa.eu/horizon-europe>

European Innovation Council

<http://ec.europa.eu/research/eic>

UE Budget

http://ec.europa.eu/budget/mff/index_n.cfm

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