



An update on Horizon Europe (Heu), the Ninth Framework Programme for Research and Innovation



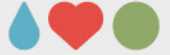


Overview

1. From Horizon 2020 to Horizon Europe
2. The Timeline
3. The Budget
4. The Horizon Europe Draft



From Horizon 2020 to Horizon Europe



A lot like Horizon 2020...

- The program focuses on “evolution, not revolution”, but has some clear changes from H2020
- Horizon Europe has a three-pillar structure: “Open Science”, “Global Challenges and Industrial Competitiveness” and “Open Innovation”, and a cross-cutting part
- Combination of fundamental research, research with aim and innovation
- Bi-annual work programmes



...but not the same

- Introduction of Missions
- Simpler and fewer partnerships
- Bridging the east-west divide
- Growing bigger, more competitive companies
- More open science
- Greater foreign access
- More citizen science



The Timeline

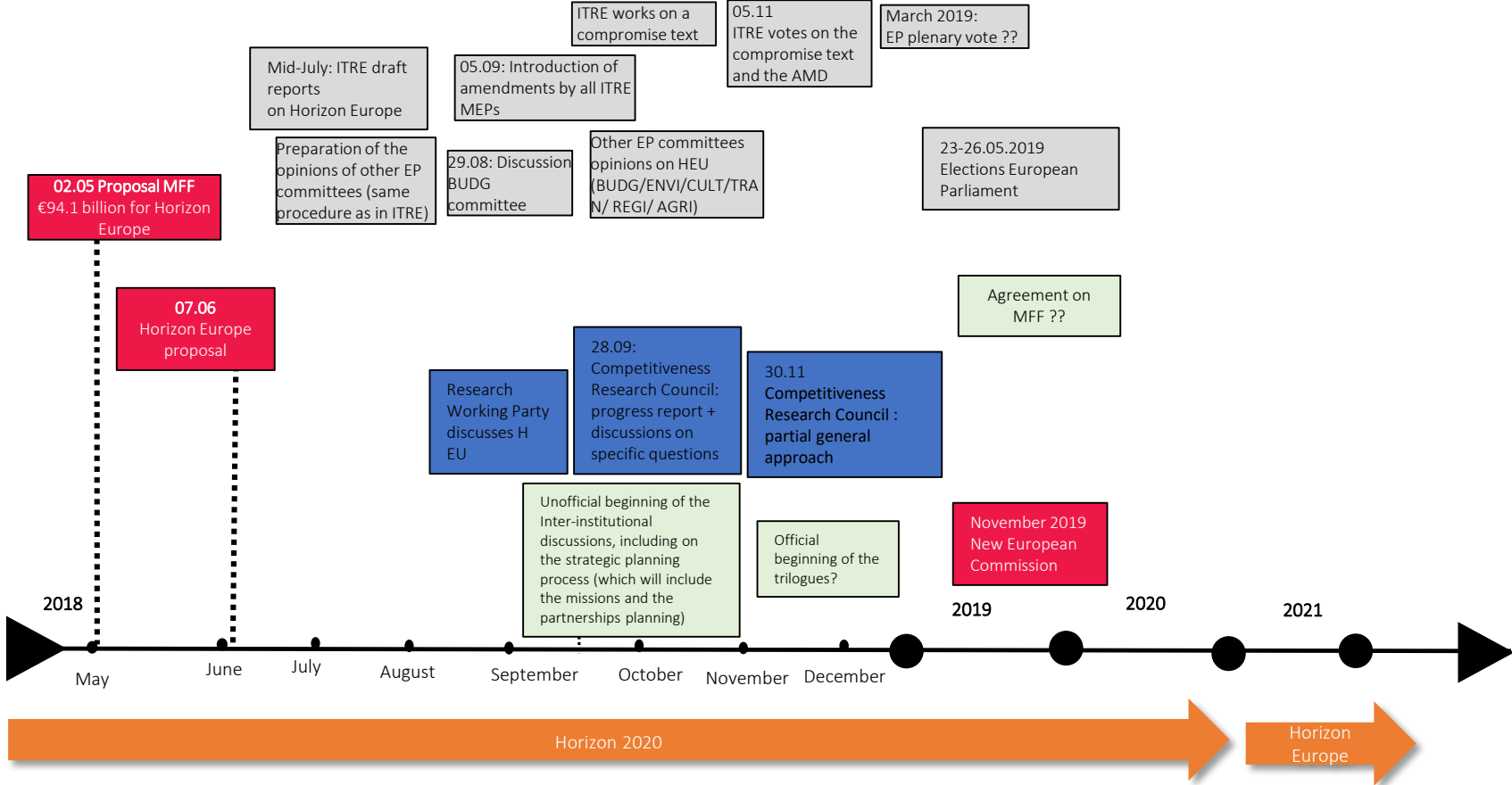


Timeline

- 13 Sep 2017: State of the Union of Juncker
- 2 May 2018: First proposal of MFF 2021-2027
- 7 June 2018: The European Commission released its proposal for Horizon Europe
- 9 July 2018: Rapporteurs Committee on Industry, Research and Energy (ITRE Committee) proposed amendments
- 10 September 2018: meeting ITRE to discuss amendments
- 28 September 2018: A decision by the Ministers is expected during the Competitiveness Council

- 29 March 2019: Brexit
- May 2019: MFF 2021-2027 adopted
- May-June 2019: European elections

Timeline Towards Horizon Europe (can still change...)





The Budget



Horizon Europe and MFF

- Horizon 2020: €80 billion with UK
- Horizon Europe: €97,6 billion without UK
- MFF is not set, and will probably change

MULTIANNUAL FINANCIAL FRAMEWORK 2021-2027 (IN COMMITMENTS)

Current prices	2021	2022	2023	2024	2025	2026	2027	2021-2027
1. Single Market, Innovation and Digital	25,421	25,890	26,722	26,604	27,000	27,703	28,030	187,370
1. Research and Innovation	13,905	14,001	14,603	14,644	14,801	15,262	15,356	102,573
Horizon Europe	13,119	13,385	13,654	13,931	14,215	14,500	14,706	97,600
Of which under the InvestEU Fund	470	480	489	500	510	520	531	3,500
Of which research and innovation in food, agriculture, rural development and the bioeconomy	1,345	1,372	1,399	1,427	1,456	1,485	1,516	10,000
Euratom Research and Training Programme	322	328	335	341	349	356	360	2,400
International Thermonuclear Experimental Reactor (ITER)	934	788	1,103	872	746	926	722	6,070
Other	0.3	0.4	0.4	0.4	0.4	0.4	0.4	3



MFF is political discussion

- European Commission proposed €97,6 billion for Horizon Europe
- European Parliament asked for an increase to € 120 billion for Horizon Europe
- Not all members of the Council of the European Union (member states) are in favour of an increase (“smaller EU, smaller budget”).



The Horizon Europe Draft

Open Science	Global Challenges and Industrial Competitiveness	Open Innovation
The European Research Council (ERC)	Health	The European Innovation Council (EIC)
Marie Skłodowska Curie Actions (MSCA)	Inclusive and Secure Societies	Innovation Ecosystems
Research Infrastructures	Digital and Industry	European Institute of Innovation & Technology (EIT)
	Climate, Energy and mobility	
	Food and natural resources	

Strengthening the European Research and Innovation Area



GC & IC – Health

- Health throughout the Life Course
- Environmental and Social Health Determinants
- Non-Communicable and Rare Diseases
- Infectious Diseases
- Tools, Technologies and Digital Solutions for Health and Care
- Health Care Systems

GC & IC – Inclusive and Secure Societies



- Democracy
- Cultural Heritage
- Social and Economic Transformations
- Disaster-Resilient Societies
- Protection and Security
- Cybersecurity



GC & IC – Digital and Industry

- Manufacturing Technologies
- Key Digital Technologies
- Advanced Materials
- Artificial Intelligence and Robotics
- Next Generation Internet
- Advanced Computing and Big Data
- Circular Industries
- Low-Carbon and Clean Industries
- Space

GC & IC – Climate, Energy and Mobility



- Climate Science and Solutions
- Energy Supply
- Energy Systems and Grids
- Buildings and Industrial Facilities in Energy Transition
- Communities and Cities
- Industrial Competitiveness in Transport
- Clean Transport and Mobility
- Smart Mobility
- Energy Storage

GC & IC – Food and Natural Resources



- Environmental Observation
- Biodiversity and Natural Capital
- Agriculture, Forestry and Rural Areas
- Sea and Oceans
- Food Systems
- Bio-based Innovation Systems
- Circular Systems



Missions

- Second pillar
- Transforming global challenges into very concrete, measurable and achievable missions
- Mariana Mazzucato:
 1. Bold, inspirational with wide societal relevance
 2. A clear direction: Targeted, measurable and time-bound
 3. Ambitious, but realistic research & innovation actions
 4. Cross-disciplinary, cross-sectored and cross-actor innovation
 5. Multiple bottom-up solutions



Missions – internal memo EC

1. Paediatric cancer
2. Health in the digital age
3. Reducing inequalities with skills and competences
4. Carbon neutral industry
5. Smart liveable cities
6. Roads without victims
7. Seasonal energy storage
8. Healthy sustainable and resilient agri-food systems for all
9. Land management for bio-diversity and carbon storage
10. Zero-waste society
11. Healthy oceans
12. Quantum computing (FET-Flagship)



Missions – Policy

- Missions will receive up to 10bn €
- A ‘mission board’ might be set up, bringing together a mixture of personalities who would help increase public visibility, including end-users, experts in the areas and representatives of the most relevant Commission services.
- How will the projects be selected ?
- Role of the Member States ?



UNIVERSITY OF BERGEN

