Based on the Commission Proposal for Horizon Europe, the common understanding between co-legislators and the Partial general agreement, both approved in April 2019
Our vision

A sustainable, fair and prosperous future for people and planet based on European values.

- Tackling climate change (35 % budgetary target)
- Helping to achieve Sustainable Development Goals
- Boosting the Union's competitiveness and growth
Sibiu recommendations: Europe can shape its future through research and innovation

- Focusing research and innovation on the **ecological, social and economic transitions** and related societal challenges
- Leveraging Europe’s scientific strengths into **leadership in breakthrough and disruptive innovation**
- Setting **ambitious goals** for issues that affect us daily, such as skills development, the fight against cancer, harmful emissions, and the state of the oceans, including plastics
- Focusing on **cutting-edge research and innovation** projects spanning from research and innovation to deployment
**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
- to boost Europe's innovation capacity, competitiveness and jobs
- to deliver on citizens' priorities and sustain our socio-economic model and values

The Commission proposes a budget of €100 billion

Additional €4.1 billion are proposed to be allocated for defence research, in a separate proposal for a European Defence Fund
Council and Parliament reached a common understanding on Horizon Europe on 19 March 2019

- Common understanding confirmed by Council and Parliament
- Budget, synergies and third country association still pending
- Commission has started preparations for the implementation of Horizon Europe
Main Features
Early involvement and extensive exchanges with Member States
Extensive exchanges with the European Parliament
Consultations with stakeholders and public at large

Strategic plan gives direction to the work programme
Steps towards the first Horizon Europe work programme

**Summer 2019**
- Early involvement and exchanges with Member States, consultation with stakeholders and the public at large

**Autumn-winter 2019/2020**
- Co-creation at Research & Innovation Days 24 – 26 September.
- Extensive exchanges with the new European Parliament.
- Establishment of new Commission - envisaged endorsement of Strategic Plan

**2020**
- Drafting of first Horizon Europe Work Programme on the basis of the Strategic Plan

**2021**
- Start of Horizon Europe
Strategic Plan for implementing Horizon Europe

The Strategic Plan (*new implementing act by the Commission*) will prepare the content in the work programmes and calls for proposals for the first four years.

- Strategic orientation for R&I support, expected impacts
- Partnerships and missions
- Areas for international cooperation
- Issues such as:
  - Balance between research and innovation
  - Social Sciences and Humanities
  - Key Enabling Technologies and strategic value chains
  - Gender
  - Ethics and integrity
  - Dissemination and exploitation
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**
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
Added value through Horizon Europe:

- Benefits for Europe
  - Attracting the best talents
  - Critical mass to address global challenges
  - Competitive funding promoting excellence
  - Strengthened European R&I landscape
  - Visibility for leading research and innovation
  - Transnational mobility
  - Creating new market opportunities

- Trans-national collaboration, exchange and networks
Horizon Europe: structure

**Pillar 1**
Excellent Science

- European Research Council
- Marie Skłodowska-Curie Actions
- Research Infrastructures

**Pillar 2**
Global Challenges and European Industrial Competitiveness

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

**Pillar 3**
Innovative Europe

- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation and Technology

Widening Participation and Strengthening the European Research Area

- Widening participation and spreading excellence
- Reforming and Enhancing the European R&I system
Commission proposal for budget: €100 billion* (2021-2027)

- **$25.8$ billion**: Excellent Science
- **$13.5$ billion**: Innovative Europe
- **$52.7$ billion**: Widening Part. & ERA
- **$2.1$ billion**: Global Challenges & European Ind. Comp.
- **$2.4$ billion**: Euratom

*This envelope includes EUR 3.5 billion allocated under the InvestEU Fund.*
Pillar 1
EXCELLENT 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

Commission proposal: € 16.6 billion
Commission proposal: € 6.8 billion
Commission proposal: € 2.4 billion
Pillar 2 - Clusters

Global Challenges & European Industrial Competitiveness: boosting key technologies and solutions underpinning EU policies & Sustainable Development Goals

Commission proposal for budget: € 52.7 billion
Pillar 3

INNOVATIVE EUROPE:
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

Commission proposal: € 10.5 billion, incl. up to € 500 million for ecosystems

Commission proposal: € 3 billion
Widening Participation and Strengthening the European Research Area: optimising strengths & potential for a more innovative Europe

Spreading Excellence, e.g.
- Teaming & twinning
- ERA Chairs
- COST
- Support to NCPs
- Braincirculation and excellence initiatives

Reforming and enhancing the European R&I system
- Scientific evidence & foresight
- Open Science
- Policy Support Facility
- Attractive researcher careers
- Citizen science, Responsible Research & Innovation
- Gender equality

Common understanding: At least 3.3 % of Horizon Europe budget
Euratom research and training programme (2021-2025)

- **Objective**
  Research and training activities to reduce nuclear safety and security risks, development of safe nuclear technologies and optimal radiation protection.

- **Key novelties**
  - Increased focus on non-power applications of radiation (medical, industrial, space)
  - Opening mobility opportunities for nuclear researchers through inclusion in Marie Skłodowska-Curie Actions
  - Simplification: Specific objectives from currently 14 to 4, covering both direct actions (implemented by JRC) and indirect actions

- **Commission proposal for budget:** € 2.4 billion (2021-2027)
Lessons Learned from Horizon 2020 Interim Evaluation

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

Key Novelties in Horizon Europe

- European Innovation Council
- R&I Missions
- Extended association possibilities
- Open science policy
- New approach to Partnerships
- Spreading Excellence
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
- Climate-neutral and smart cities
- Soil health and food
- Cancer
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
Areas for possible Institutionalised European partnerships (based on Article 185/7 TFEU)

- Health innovations
- Key digital and enabling technologies
- Metrology
- EU air traffic, aviation and rail
- Sustainable bio-based solutions
- Hydrogen and sustainable energy storage
- Clean, connected mobility
- Innovative SMEs
Areas for possible Institutionalised European partnerships (based on Article 185/7 TFEU)

Innovative SMEs

Health innovations

Key digital and enabling technologies

Metrology

Sustainable energy storage technologies

Clean, connected mobility

Sustainable bio-based solutions

EU air traffic, aviation and rail

Innovative SMEs
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.)
Open Science across the programme

- **Mandatory Open Access to publications:** beneficiaries must ensure the existence of sufficient 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 in and reward systems for open science

- Use of European Open Science Cloud
Open science across the programme

Open science
Art. 10

Open Access
1. to scientific publications: ensured
2. to research data: ensured
in line with the principle 'as open as possible, as
closed as necessary'

= RESEARCH OUTPUTS

Responsible research data management
ensured: FAIR principles

Other open science practices
promoted

Dissemination and exploitation
Art. 35

Open access
1. to scientific publications: obligatory
2. to research data, 'as open as possible, as
closed as necessary': exceptions

Responsible research data management
Data Management Plan and European Open Science Cloud where required

Other open science practices
Possible additional incentives or obligations
through Work Programmes and calls
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
- Innovation Fund
- Internal Security Fund
- ESF+
- Digital Europe
- Single Market Programme
- Space Programme
- Erasmus

**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
Implementation Strategy to shift the focus from administration to content

- Enhancing synergies with other EU programmes
- Simplifying the model grant agreements and guidance to be beneficiaries
- Funding and tenders portal – one stop shop for easy access to EU funding and project implementation

Early consultation with stakeholders/programme ready to start in 2021