The Horizon Framework Programme
The Horizon framework programme is a **POLITICAL INSTRUMENT** where research and innovation are needed to achieve political priorities.
Horizon Europe 2021–2027

Evolution not a revolution

- 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

Evolution not a revolution
Horizon Europe timeline

- **2018**: EC decides on a Follow-up R&I programme
- **2019**: Partial agreement on content
- **2020**
  - Spring 2020: WP Outlines
  - Summer 2020: Topic drafts
- **2021**
  - Jan 2021: WP adoption
  - Feb 2021: Horizon Europe Launch
  - Q1 2021 (?): First calls open
Horizon Europe

**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

100 billion euro?
European partnerships

European commission

EU industry

Member States

Framework programmes

Partnership programmes

National programmes

Research project
### Possible European partnerships

#### Health
- EU-Africa Global Health
- Innovative Health Initiative
- Chemicals Risk Assessment
- Fostering an ERA for Health research
- Large-scale innovation and transformation of health systems in a digital and ageing society
- Personalised Medicine
- Rare Diseases
- One Health AMR

#### Climate, energy and mobility
- Transforming Europe’s rail system
- Integrated Air Traffic Management
- Clean Aviation
- Clean Hydrogen
- Built environment and construction
- Towards zero-emission road transport
- Mobility and Safety for Automated Road Transport
- Batteries
- Clean Energy Transition
- Driving Urban Transition
- Smart and zero-emission waterborne transport

#### Digital, industry and space
- High Performance Computing
- Key Digital Technologies
- Smart Networks and Services
- AI, data and robotics
- Photonics Europe
- Clean Steel - Low Carbon Steelmaking
- European Metrology
- Made in Europe
- Carbon Neutral and Circular Industry
- Global competitive space systems
- European Geological Service

#### Food, bioeconomy, natural resources, agriculture and environment
- Accelerating farming systems transition
- Animal health: Fighting infectious diseases
- Environmental Observations for a sustainable EU agriculture
- Rescuing biodiversity to safeguard life on Earth
- A climate neutral, sustainable and productive Blue Economy
- Safe and Sustainable Food System for People, Planet & Climate
- Circular bio-based Europe
- Water4All: Water security for the planet

#### Pillar III
- Cross-Pillar
  - EIT Climate KIC
  - EIT Health
  - EIT Food
  - EIT InnoEnergy
  - EIT Raw Materials
  - EIT Digital
  - EIT Urban Mobility
  - EIT Cultural and Creative Industries
  - Innovative SMEs
  - European Open Science Cloud (EOSC)

#### Cluster allocation tbc
- Pandemic Preparedness and Societal Resilience
R & I Missions

Create more impact for society, policymaking and citizens

Bold, inspirational and measurable goal

A portfolio of actions across disciplines and sectors
Missions are not about R&I - they are about delivering a public good. They are used to agree on a European level what we want to change and deliver it in society.

1. Adaptation to Climate Change, including Societal Transformation
2. Cancer
3. Healthy Oceans, Seas, Coastal and Inland Waters
4. Climate-Neutral and Smart Cities
5. Soil Health and Food
Missions

1. Adaption to Climate Change, including and Societal Transformation, [mer info här](#)

2. Cancer, [mer info här](#)

3. Healthy oceans, seas, coastal and inland waters, [mer info här](#)

4. Carbon-Neutral and Smart Cities, [mer info här](#)

5. Soil Health for sustainable food, [mer info här](#)
Role of the member states

Program Committee (PC) and National Contact Points (NCP)

- Decide work programmes (call text)
- Support and stimulate participation in Horizon 2020
- Monitor evaluation
NCP?

- National EU-node
- National contact points

NCP

Answers questions on Horizon Europe
Helps to find matching calls and topics
Legal and financial advice
Spreads information
Strategic advice

Information from SE system to EC via NCP networks, experts and PC
Why participate?

Development of cutting-edge ideas

Access to new knowledge and skills

Solutions to global challenges

Strategic partnerships and collaborations

Access to advanced technologies and methods
Why industry participation?

Contribution to different parts of the value chain for product development

- Reduced development time

Investment in SE research and development

- Access to SE competence and networking

Finance

- Reduced risk when having funding from several sources
Message to convey

1. Strategy
2. Impact
3. Synergies
Marie Skłodowska Curie Actions
Marie Skłodowska Curie Actions

2020
- May 15 2020: "Shadow" MSCA meeting
- Aug 10 2020: Q&A distributed, Intense discussions
- Oct 19 2020: Consultation WP draft, "Discussion on the main features"
- Dec 1-4 2020: NCP meetings & REA trainings

2021
- Q4: Formal PC configuration
- March 2021: Formal adoption of HEU WP
- ???: First calls
"Shadow" MSCA – May 15, 2020
UNIT COSTS

ONGOING DISCUSSIONS

- Existing cost categories, rates might be updated
- Cost categories for long-term leaves (>30d), special needs
- Simplified reimbursement (lump sums) in Citizens
- Study: Review of MSCA Unit-cost
UNIT COSTS

Researchers unit costs (ITN, IF) – 3/3

<table>
<thead>
<tr>
<th>MSC Actions</th>
<th>Living allowance*</th>
<th>Mobility allowance</th>
<th>Family allowance</th>
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<tbody>
<tr>
<td>ITN Doctorates</td>
<td>3 270</td>
<td>3 450</td>
<td>600</td>
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<tr>
<td>HE</td>
<td></td>
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<td>H2020 = HE</td>
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<td>H2020 → HE</td>
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IF Postdoctoral Fellowships

<table>
<thead>
<tr>
<th></th>
<th>Mobility allowance</th>
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<tbody>
<tr>
<td>4 880</td>
<td>5150</td>
<td>600</td>
<td>500</td>
</tr>
</tbody>
</table>

*subject to CCC

COFUND

Findings
- Limited attractiveness due to requirement to top-up the living allowances
- Too complex

Recommendations
- Increase EU contribution to cover the minimum remuneration
  - DP 70% of 3450+600 = 2835 (from 1935 in H2020)
  - PP 70% of 5150+600 = 4025 (from 2740 in h2020)
- Abolish management and indirect costs
DOCTORAL NETWORKS

ONGOING DISCUSSIONS

- Single action
- Incentives for industrial or joint doctorates
- Intersectorial cooperation without international mobility
- Restricted resubmissions 80% limit, IT tool for text analysis to identify resubmissions, final decision by experts, 70% consortium composition, 70% text similarities
- 360 person-months (540 ind/joint)
POSTDOCTORAL FELLOWSHIPS

ONGOING DISCUSSIONS

- Single action – two destinations (EF/GF)
- EF: +6 months non-academic sector
- PhD eligible criteria, positive reply defending thesis
- Scientific age 6 years after PhD (not COFUND and Staff exchanges)
- Time outside EU or research will not counted towards scientific age
- Restrict resubmission implemented 2022 (70%)
STAFF EXCHANGE

ONGOING DISCUSSIONS

- Interdisciplinary secondments in same sector possible within Europe (max 1/3 of all secondments)
- Max 360 person-months (to make projects more manageable)
COFUND

ONGOING DISCUSSIONS

- Sustained structuring effects
- Unit cost: 70% of living + mobility allowance
- Greater focus on new beneficiaries and new training programmes
- Max 1/3 duration of secondments
- New consecutive proposal?
- Seal of Excellence?
CITIZENS

ONGOING DISCUSSIONS

- Continuation of Researchers´ Night
- Possible to have pre-events
- Extension to existing outreach events with EU-added value
Message to convey

1. Continuation with simplification and alignment across the “greener” MSCA in HEU

2. Impact at policy level by setting standards and driving structural change

3. Creating impact on researcher, institutions, systems
EU ministers hand €200M from EIC budget to Marie Curie in Horizon deal

The final budget and legal text for Horizon Europe is ready to be negotiated with the European Parliament, after research ministers agreed to cut all components apart from the Marie Curie researcher mobility scheme.
Global Challenges and European Industrial Competitiveness
Global Challenges and European Industrial Competitiveness

Boosting key technologies and solutions, underpinning EU policies and Sustainable Development Goals

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
1. Cluster aims

• to better understand and manage health and diseases
• sustainable digital transformation
• delivery of integrated, person-centred and equitable health and care
• reliable supply chains
Cluster 1 – Destinations

1. Staying healthy in a rapidly changing society

2. Living and working in a health-promoting environment

3. Tackling diseases and reducing disease burden

4. Ensuring access to innovative, sustainable and high-quality health care

5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

6. Maintaining an innovative, sustainable and globally competitive health-related industry
Related European initiatives

“The cluster health will promote and foster synergies with public health policies at national and regional level, with other EU programmes and policies, as well as with health-related European infrastructures.”

EU4Health

Europe’s Beating Cancer Action Plan
Mission Cancer

European Green Deal
– One Health initiative on AMR
– Impact of pollution and climate change on health and well-being

Europe fit for the digital age
– convergence of pharmaceutical, digital and medical technologies
– digital transformation of health and care
2. Cluster aims

• Enhancing democratic governance and citizens participation

• Safeguarding and promotion of cultural heritage

• Respond to multifaceted social, economic, technological and cultural transformations
Cluster 2 – Destinations

1. Innovative Research on Democracy and Governance

2. Innovative Research on the European Cultural Heritage and the Cultural and Creative Industries

3. Innovative Research on Social and Economic Transformations
Related European initiatives

“This Global Challenge will be overall aligned with the EU’s priorities on Democratic Change; Jobs, Growth and Investment; Justice and Fundamental Rights; Migration; A Deeper and Fairer European Monetary Union; Digital Single Market and a social Europe.”

Justice Programme
Rights, Equality and Citizenship Programme
European Social Fund
Creative Europe
Digital Europe
Erasmus, Erasmus +
3. Cluster aims

• Supporting EU policy priorities
• Meeting capability requirements
• Ensuring ethical outcomes that are supported by society
Cluster 3 – Destinations

1. Better protect the EU and its citizens against Crime and Terrorism

2. Effective management of EU external borders

3. Protected Infrastructure

4. Increased Cybersecurity

5. A Disaster-Resilient Society for Europe

6. SSRI (Strengthened Security Research and Innovation)
Related European initiatives

“As an overarching priority, effective support will be provided to practitioners, law enforcement agencies, first responders and other public authorities or private entities which are ensuring the security of European citizens, infrastructures and assets in general.”

Security Union

The EU Internal Security Strategy

Cybersecurity
  – NIS Directive
  – GDPR
  – the EU Cybersecurity Act
  – e-Privacy regulation

Related programs
  – European Defence Fund - EDF
  – Internal Security Fund – ISF
  – Digital Europe Program - DEP
4. Cluster aims

- Ensuring the competitive edge and autonomy of EU industry

- Fostering climate-neutral, circular and clean industry

- A major contribution to inclusiveness
Cluster 4 – Destinations

1. Climate neutral, circular, and digitised production
2. A digitised, resource-efficient and resilience industry
3. World leading data and computing technologies
4. Digital and emerging technologies for competitiveness and fit for the green deal
5. Strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
6. A human-centred and ethical development of industrial technologies
Related European initiatives

“Overarching vision is a European industry with global leadership in key areas, fully respecting planetary boundaries, and resonant with societal needs”

Renewed EU Industrial Policy Strategy (COM(2017) 479)

A Europe fit for the digital age
- Artificial Intelligence
- Cybersecurity
- High Performance Computing

Related programmes
- Digital Europe Program – ‘Deployment’ program
- Connect Europe Facility – Infrastructure building
- European Defence Fund
5. Cluster aims

• climate neutrality in Europe by 2050
• deep reduction of greenhouse gas emissions
• zero pollution
• decarbonization
• becoming a globally leading actor for sustainable technologies and services
Cluster 5 – Destinations

1. Climate sciences and responses

2. Cross-sectoral solutions for the climate transition

3. Sustainable, secure and competitive energy supply

4. Efficient, sustainable and inclusive energy use

5. Clean and competitive solutions for all transport modes

6. Safe Resilient Transport and Smart Mobility services for passengers and goods
Related European initiatives

“Beyond the inevitable social transitions and lifestyle changes, a key contribution to success is the development of [...] cost-effective climate neutral alternatives for emitting activities”

European Green Deal

A Clean Planet for All

Europe fit for the digital age
– digitalization of the energy and transport systems
6. Cluster aims

- reduce environmental degradations
- halt the decline of biodiversity
- better manage natural resources
- serve the EU climate objectives
- ensure food and water security
Cluster 6 – Destinations

1. Biodiversity and Ecosystem Services
2. Fair, healthy and environmentally-friendly food systems from primary production to consumption
3. Circular economy and bioeconomy sectors
4. Clean environment and zero pollution
5. Land, oceans and water for climate action
6. Resilient, inclusive, healthy and green rural, coastal and urban communities
7. Innovative governance, environmental observations and digital solutions in support of the Green Deal
Related European initiatives

“The mandate to Cluster 6 is to [...] balance environmental, social and economic goals and to set human activities on a path to sustainability”

European Green Deal
Farm to Fork Strategy
A sustainable Bioeconomy for Europe

Other
- EU Forest Strategy
- EU Plastics Strategy
- Chemicals Strategy for Sustainability
- EU Biodiversity Strategy
- Circular Economy Action Plan
- A Europe fit for the digital age
- EU industrial Strategy
JRC

- The ECs science and knowledge service
- Independent scientific advice and support to EU policy
- Funded directly through H2020/HEU but JRC researchers can also apply to calls
- Collaboration with over 1000 organizations worldwide
Knowledge Centres – virtual entities, bringing together experts and knowledge from different locations inside and outside the European Commission

Competence Centres – centred on analytical tools

Researchers have access to many of JRC’s research facilities

Open calls for laboratory visits, use research infrastructure, and other types of collaborations

Message to convey

1. Boosting key technologies and solutions
2. Underpinning EU policies
3. Underpinning Sustainable Development Goals
Rules and regulations
RULES AND REGULATIONS
The HEU MODEL GRANT AGREEMENT

Agreed on:

• The structure and interplay between core part and Annex 5
• Most of the specific provisions
• Main IT-related implementation features
• Specific unit cost decisions
RULES AND REGULATIONS

The HEU MODEL GRANT AGREEMENT

Pending:

EIC specificities

Beneficiary Not Receiving Funding

IPR provisions on public emergencies

For PPI, the issue of having two funding rates
RULES AND REGULATIONS

ADMISSIBILITY

• A plan for exploitation and dissemination of the results
• Projects must comply with ethical principles
• At least three independent legal entities, established in a different Members State or Associated Country
• At least ONE of them established in a Member State
• Single applicant allowed in some parts
RULES AND REGULATIONS

AWARD CRITERIA

• Excellence
• Impact
• Quality and efficiency of the implementation

For full applications, each criterion will be scored out of 5. The threshold for individual criteria will be 3.
RULES AND REGULATIONS

SET-UP; CORPORATE GRANT AGREEMENT

- **Corporate** grant agreement

- Budget categories:
  - Actual costs:
    - units
    - average personnel costs
    - internally invoiced goods and services
  - Calculation method:
    - Flat rate
    - Lump sum
    - Daily rate

- The ‘standard’ CFS threshold = **EUR 430 000**
Message to convey

1. Three beneficiaries, one from a Member State
2. Corporate Model Grant Agreement
3. Daily Rate
Synergies and related programmes
It’s not about ideas. It’s about making ideas happen.

Scott Belsky

vinnova.se/m/horisont-2020/kontaktlista/