







THE EU RESEARCH & INNOVATION PROGRAMME

2021 – 2027

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How to prepare a successful proposal in Horizon Europe

24 March 2021



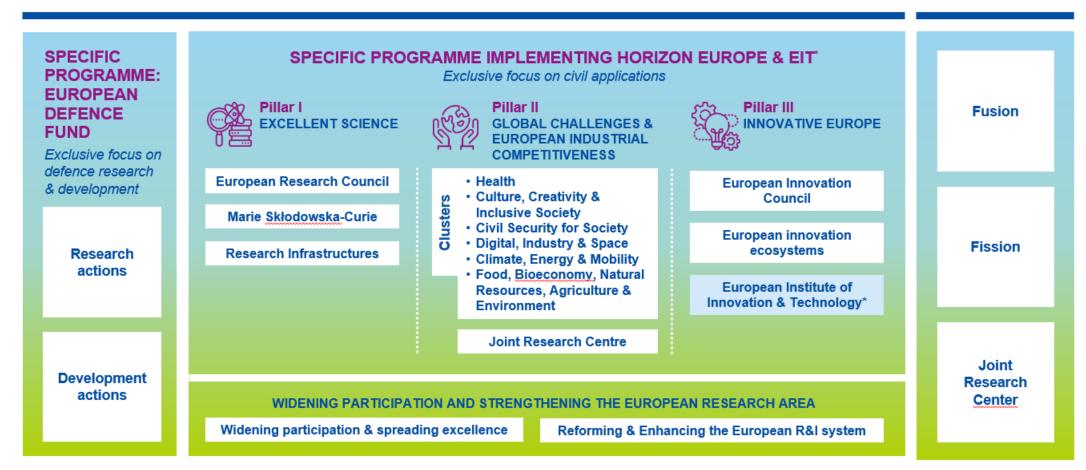
Research and Innovation

About Horizon Europe

Horizon Europe supports research and innovation through Work Programmes, which set out funding opportunities for research and innovation activities.

HORIZON EUROPE

EURATOM



opean nmission

^{*} The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

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What is new in the submission process?





Admissibility

Same general admissibility conditions

- Applications must be submitted before the call deadline, electronically via the Funding & Tenders Portal
- Applications must be complete, readable, accessible and printable, and include a
 plan for the exploitation and dissemination of results, unless provided otherwise in
 the specific call conditions.

Proposal page limit

Substantial reduction in maximum length:

- RIAs and IAs type of actions: limit for a full application is 45 pages
- CSAs: limit is 30 pages
- First stage proposals: limit is 10 pages
- EIC Pathfinder: limit is 17 pages
- Exceptions, if any, would be specified in the call text.





Consortium composition (collaborative projects)

- at least one independent legal entity established in a Member State, and
- at least two other independent legal entities each established either in a different Member State or an Associated Country.

Gender Equality Plan (applicable only from 2022 on)

Participants that are public bodies, research organisations or higher education establishments from Members States and Associated countries **must have a gender equality plan**, covering minimum process-related requirements.

- A self-declaration will be requested at proposal stage (for all types of participants).
- Included in the entity validation process (based on self-declaration)



Who is eligible for funding?



EU COUNTRIES

- Member States (MS) including their outermost regions
- The Overseas
 Countries and
 Territories (OCTs)
 linked to the MS.



NON-EU COUNTRIES

- Countries associated to Horizon Europe (AC)
- Low and middle income countries: See <u>HE</u> <u>Programme Guide</u>.
- Other countries when announced in the call or exceptionally if their participation is essential



SPECIFIC CASES

- Affiliated entities established in countries eligible for funding.
- EU bodies
- International organisations (IO):
 - International European research organisations are eligible for funding.
 - Other IO are not eligible (only exceptionally if participation is essential)
 - IO in a MS or AC are eligible for funding for Training and mobility actions and when announced in the call conditions

Associated Countries



For the purposes of the eligibility conditions, applicants established in Horizon 2020 Associated Countries or in other third countries negotiating association to Horizon Europe will be treated as entities established in an Associated Country, if the Horizon Europe association agreement with the third country concerned applies at the time of signature of the grant agreement.

Specific situation of UK

- The UK is expected to soon become an associated country to Horizon Europe. UK entities can take part in the first calls for proposals of Horizon Europe
- The UK is associating to the full Horizon Europe programme with the only exception of the EIC Fund (which is the loan/equity instrument of the EIC).





Eligible activities are the ones described in the call conditions

Activities must focus exclusively on civil applications and must not:

- aim at human cloning for reproductive purposes;
- intend to modify the genetic heritage of human beings which could make such changes heritable (except for research relating to cancer treatment of the gonads, which may be financed);
- intend to create human embryos solely for the purpose of research, or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer;
- lead to the destruction of human embryos.



Activities eligible for funding – Type of actions

Research and innovation action (RIA) Activities to establish new knowledge or to explore the feasibility of a new or improved technology, product, process, service or solution.

Innovation action (IA)

Activities to produce plans and arrangements or designs for new, altered or improved products, processes or services.

Coordinatio n and support actions (CSA)

Activities that contribute to the objectives of Horizon Europe. This excludes R&I activities, except for 'Widening participation and spreading excellence'

Programme co-fund actions (CoFund) A programme of activities established or implemented by legal entities managing or funding R&I programmes, other than EU funding bodies.

Innovation and market deployment actions (IMDA)

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Precommercial
procurement
actions/
(PCP)

Public
procurement
of innovative
solutions
actions (PPI)

Activities that embed an innovation action and other activities necessary to deploy an innovation on the market. (EIC)

.....

Activities that aim to improve the skills, knowledge and career prospects of researchers, based on mobility between countries and, if relevant, between sectors or disciplines. (MSCA)

Activities that aim to help a buyers' group to strengthen the public procurement of research, development, validation and, possibly, the first deployment of new solutions

Activities that aim to strengthen the ability of a buyers' group to deploy innovative solutions early





Maximum funding rates

Type of Action	Funding rate
Research and innovation action	100%
Innovation action	70% (except for non-profit legal entities, where a rate of up to 100% applies)
Coordination and support action	100%
Programme co-fund action	Between 30% and 70%
Innovation and market deployment	70% (except for non-profit legal entities, where a rate of up to 100% applies)
Training and mobility action	100%
Pre-commercial procurement action	100%
Public procurement of innovative solutions action	50%

Other funding rates may be set out in the specific call conditions





Application form (proposal template)

Same structure

The proposal contains two parts:



- Part A (web-based forms) is generated by the IT system. It is based on the information entered by the participants through the submission system in the Funding & Tenders Portal.
- Part B is the narrative part that includes three sections that each correspond to an
 evaluation criterion. Part B needs to be uploaded as a PDF document following the
 templates downloaded by the applicants in the submission system for the specific call or
 topic.



New features in the Horizon Europe proposal







NEW FIELDS IN PART A

- Researchers table needed to follow up researchers careers (HE indicator)
- Role of participating organisation
- Self-declaration on gender equality plan

FIELDS MOVED FROM PART B TO PART A

- Ethics self-assessment
- Security questionnaire (NEW! in all HE proposals)
- Information on participants' previous activities related to the call

NEW IN PART B

- Glossary of terms.
- Consistency on the use of terminology is ensured in all project phases (from WP to proposal and reporting)
- Extensive explanations on what exactly should be included in each section.

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What is new in the evaluation process?









Same criteria as in H2020

Same three award criteria: 'Excellence', 'Impact' and 'Quality and efficiency of the implementation'. Excellence only for ERC.

Adapted following lessons learnt

- The number of 'aspects to be taken into account' have been reduced, ensuring that the same aspect is not assessed twice
- Open Science practices assessed as part of the scientific methodology in the excellence criterion
- New approach to impact: Key Impacts Pathways (KIPs)
- The assessment of the quality of applicants is assessed under 'implementation', rather than as a separate binary assessment of operational capacity
- Assessment of management structures has been removed.



Evaluation criteria (RIAs and IAs)

EXCELLENCE

- ✓ Clarity and pertinence of the project's objectives, and the extent to which the proposed work is ambitious, and goes beyond the state-of-the-art.
- ✓ Soundness of the proposed methodology, including the underlying concepts, models, assumptions, interdisciplinary approaches, appropriate consideration of the gender dimension in research and innovation content, and the quality of open science practices including sharing and management of research outputs and engagement of citizens, civil society and end users where appropriate.

IMPACT

- Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.
- ✓ Suitability and quality of the measures to maximize expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

QUALITY AND EFFICIENCY OF THE IMPLEMENTATION

- ✓ Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.
- Capacity and role of each participant, and extent to which the consortium as a whole brings together the necessary expertise.





Standard evaluation process

Individual evaluation

Experts assess proposals individually. Minimum of three experts per proposal (but often more than three).

Consensus group

All individual experts discuss together to agree on a **common position**, including comments and scores for each proposal.

Panel review

The panel of experts reach an **agreement** on the scores and comments for all proposals within a call, checking **consistency across the evaluations**.

if necessary, resolve cases where evaluators were unable to agree.

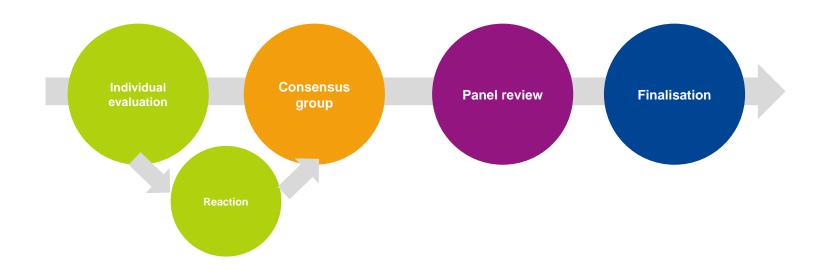
Rank the proposals with the same score

Finalisation

The Commission/Agency reviews the results of the experts' evaluation and puts together the **final ranking list**.



Piloting new processes based on lessons learnt



Right-to-react (Rebuttal)

- Objective is to increase transparency, to correct any factual or major misunderstandings by experts at an early stage, and provide more detailed feedback to applicants.
- Applicants will send their reactions to draft experts comments
- Experts will take applicants' reaction into account before finalising their final assessment.



Piloting new processes based on lessons learnt



Blind evaluation (in 1st stage)

- There is no evidence that the current proposal evaluation system is systematically biased.
- There are understandable concerns that evaluation experts may be swayed perhaps unconsciously –
 in favour of proposals from well-known organisations in countries with better performing R&I systems.
- 'Blind' evaluation is a way to remove any real or perceived effect of such reputational bias.
- Experts evaluate without knowing the identity of participants.
- The work programme will include an additional admissibility criterion: applicants can not be disclosed in the narrative part of the proposal.





Same criteria as in H2020

For all activities funded, ethics is an **integral part** of research from beginning to end, and **ethical compliance** is essential to achieve real research excellence. An ethics review process is carried out systematically in all Horizon Europe proposals, based on a **self-assessment** included in the proposal.

Ethical research conduct implies the application of fundamental ethical principles and legislation in all possible domains of research. This includes the adherence to the highest standards of research integrity as described in the European Code of Conduct for Research Integrity.

Adapted following lessons learnt

- Focus mainly on complex/serious cases
- Reduce number of ethics requirements in funded projects.





New in Horizon Europe

Security issues will be checked **systematically** in all Horizon Europe proposals (in H2020 only proposals submitted to topics flagged as 'security-sensitive' were checked). The checks are based on a **self-assessment** included in the proposal. The focus is on:

- Whether the proposal uses or generates EU classified information
- Potential of misuse of results (that could be channeled into crime or terrorism)
- Whether activities involve information or materials subject to national security restrictions

The checks based on the self-assessment may trigger an in-depth security scrutiny.



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Points to consider when writing a proposal in HE





Key principles





Your proposed work must be within the scope of a work programme topic



You need to demonstrate that your idea is ambitious and goes beyond the state of the art



Your scientific methodology must take into account interdisciplinary, gender dimension and open science practices.



You should show how your project could contribute to the outcomes and impacts described in the work programme (the pathway to impact)



You should describe the planned measures to maximise the impact of your project ('plan for the dissemination and exploitation including communication activities')



You should demonstrate the quality of your work plan, resources and participants



Policy and horizontal considerations





Open Science across the programme



Gender dimension in R&I content



Pathway to impact



Measures to maximise impact



Artificial intelligence

These aspects must normally be considered in all Horizon Europe calls (unless explicitly mentioned in the topic description).

Specific calls may include other aspects to take into account.

Future webinars focused on these specific aspects will come soon.





Open Science across the programme

Open Science

Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. Including active engagement of society

Mandatory immediate Open Access to publications: beneficiaries must retain sufficient IPRs to comply with open access requirements;

Data sharing as 'open as possible, as closed as necessary': mandatory Data Management Plan for FAIR (Findable, Accessible, Interoperable, Reusable) research data

- Work Programmes may incentivize or oblige to adhere to open science practices such as involvement of citizens, or to use the European Open Science Cloud
- Assessment of open science practices through the excellence award criteria for proposal evaluation. Under quality of participants previous experience on open sciences practices will be evaluated positively.
- Dedicated support to open science policy actions
- Open Research Europe publishing platform



Gender dimension in R&I content

Gender **Dimension** Addressing the gender dimension in research and innovation entails taking into account sex and gender in the whole research & innovation process.

The integration of the gender dimension into R&I content is mandatory, unless it is explicitly mentioned in the topic description

Why is gender dimension important?

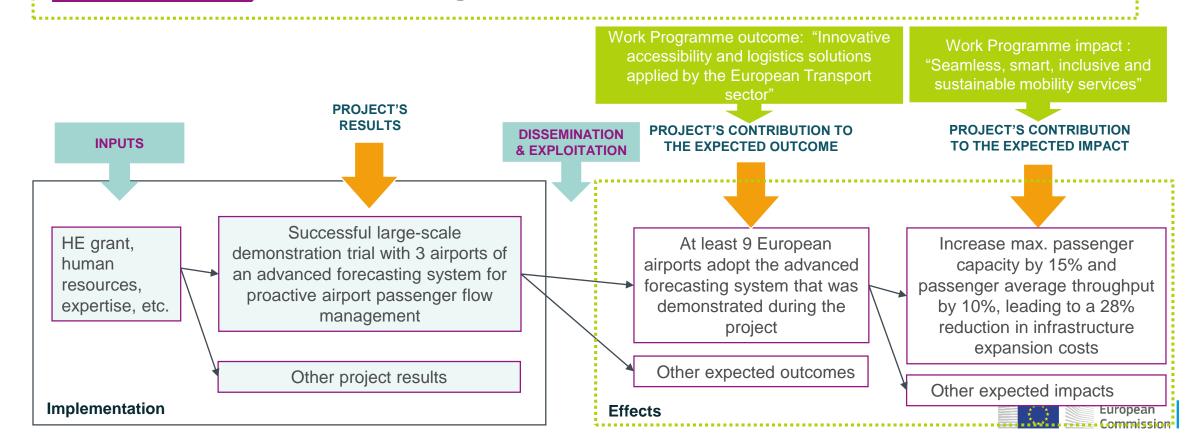
- Why do we observe differences between women and men in infection levels and mortality rates in the COVID-19 pandemic?
- Does it make sense to study cardiovascular diseases only on male animals and on men, or osteoporosis only on women?
- Does it make sense to design car safety equipment only on the basis of male body standards?
- Is it responsible to develop AI products that spread gender and racial biases due to a lack of diversity in the data used in training AI applications?
- Is it normal that household travel surveys, and thus mobility analysis and transport planning, underrate trips performed as part of caring work?
- Did you know that pheromones given off by men experimenters, but not women, induce a stress response in laboratory mice sufficient to trigger pain relief?
- And did you know that climate change is affecting sex determination in a number of marine species and that certain populations can are now at risk of extinction?



Describing the impact of your proposal

Project's pathway towards impact

...by thinking about the specific contribution the project can make to the expected outcomes and impacts set out in the Work Programme.



STRATEGIC PLAN

WORK PROGRAMME

Application process (researed liners) PROJECT PROPOSALS

Link between policy priorities and project results

EU POLICY PRIORITIES	Overall priorities of the European Union (Green Deal, Fit for the Digital Age,)
KEY STRATEGIC ORIENTATIONS	Set of strategic objectives within the EC policy priorities where R&I investments are expected to make a difference
IMPACT AREAS	Group of expected impacts highlighting the most important transformation to be fostered through R&I
EXPECTED IMPACTS = DESTINATIONS	Wider long term effects on society (including the environment), the economy and science, enabled by the outcomes of R&I investments (long term). It refers to the specific contribution of the project to the work programme expected impacts described in the destination. Impacts generally occur some time after the end of the project.
EXPECTED OUTCOMES = TOPICS	The expected effects, over the medium term, of projects supported under a given topic. The results of a project should contribute to these outcomes, fostered in particular by the dissemination and exploitation measures. This may include the uptake, diffusion, deployment, and/or use of the project's results by direct target groups. Outcomes generally occur during or shortly after the end of the project.
PROJECT RESULTS	What is generated during the project implementation. This may include, for example, know-how, innovative solutions, algorithms, proof of feasibility, new business models, policy recommendations, guidelines, prototypes, demonstrators, databases and datasets, trained researchers, new infrastructures, networks, etc. Most project results (inventions, scientific works, etc.) are 'Intellectual Property', which may, if appropriate, be protected by formal 'Intellectual Property Rights'



Measures to maximise impact

Dissemination, exploitation and communication

To include a draft plan in proposal is an admissibility condition, unless the work programme topic explicitly states otherwise.

All measures should be proportionate to the scale of the project, and should contain concrete actions to be implemented both during and after the end of the project

Elements of the D&E&C plan

- Planned measures to maximise the impact of projects
- Target groups (e.g. scientific community, end users, financial actors, public at large) and proposed channels to interact
- Communication measures for promoting the project and its findings throughout the full lifespan of the project
- Policy feedback measures to contribute to policy shaping and supporting the implementation of new policy initiatives and decisions
- Follow-up plan to foster exploitation/uptake of the results
 - Comprehensive and feasible strategy for the management of the intellectual property (the provision of a results
 ownership list is mandatory at the end of the project)
 - If exploitation is expected primarily in non-associated third countries, give a convincing justification that this is still in the Union's interest.





Do no significant harm principle (DNSH)

European Green Deal In line with the European Green Deal objectives, economic activities should not make a significant harm to any of the six environmental objectives (EU Taxonomy Regulation)

- Applicants can refer to the DNSH principle
 when presenting their research methodology and
 the expected impacts of the project, to show that
 their project will not carry out activities that make
 a significant harm to any of the six environmental
 objectives of the EU Taxonomy Regulation.
- However, evaluators will not score applications in relation to their compliance with the DNSH principle unless explicitly stated in the work programme (currently, this is the case only for actions in the European Innovation Council Work Programme 2021).

The six environmental objectives:



Climate change mitigation



Sustainable use & protection of water & marine resources



Pollution prevention & control



Climate change adaptation



Transition to a circular economy



Protection and restoration of biodiversity & ecosystems



Trustworthy Artificial Intelligence

Due diligence is required regarding the trustworthiness of all Al-based systems/ techniques used or developed in projects funded under Horizon Europe.

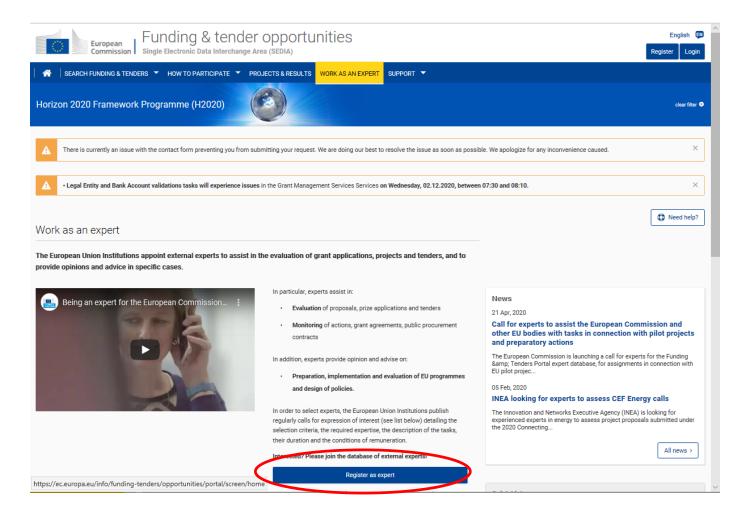
Under Horizon Europe, the technical robustness* of the proposed Al based systems must be evaluated under the excellence criterion.

(*) Technical robustness refers to technical aspects of AI systems and development, including resilience to attack and security, fullback plan and general safety, accuracy, reliability and reproducibility.

Al-based systems or techniques should be, or be developed to become:

- Technically robust, accurate and reproducible, and able to deal with and inform about possible failures, inaccuracies and
 errors, proportionate to the assessed risk posed by the AI-based system or technique.
- Socially robust, in that they duly consider the context and environment in which they operate.
- Reliable and function as intended, minimizing unintentional and unexpected harm, preventing unacceptable harm and safeguarding the physical and mental integrity of humans.
- Able to provide a suitable explanation of its **decision-making process**, whenever an AI-based system can have a significant impact on people's lives.





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Any questions?

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Thank you!

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