European Commission

#HorizonEU

**THE EU
RESEARCH & INNOVATION
PROGRAMME**

2021 – 2027

ISABEL VERGARA

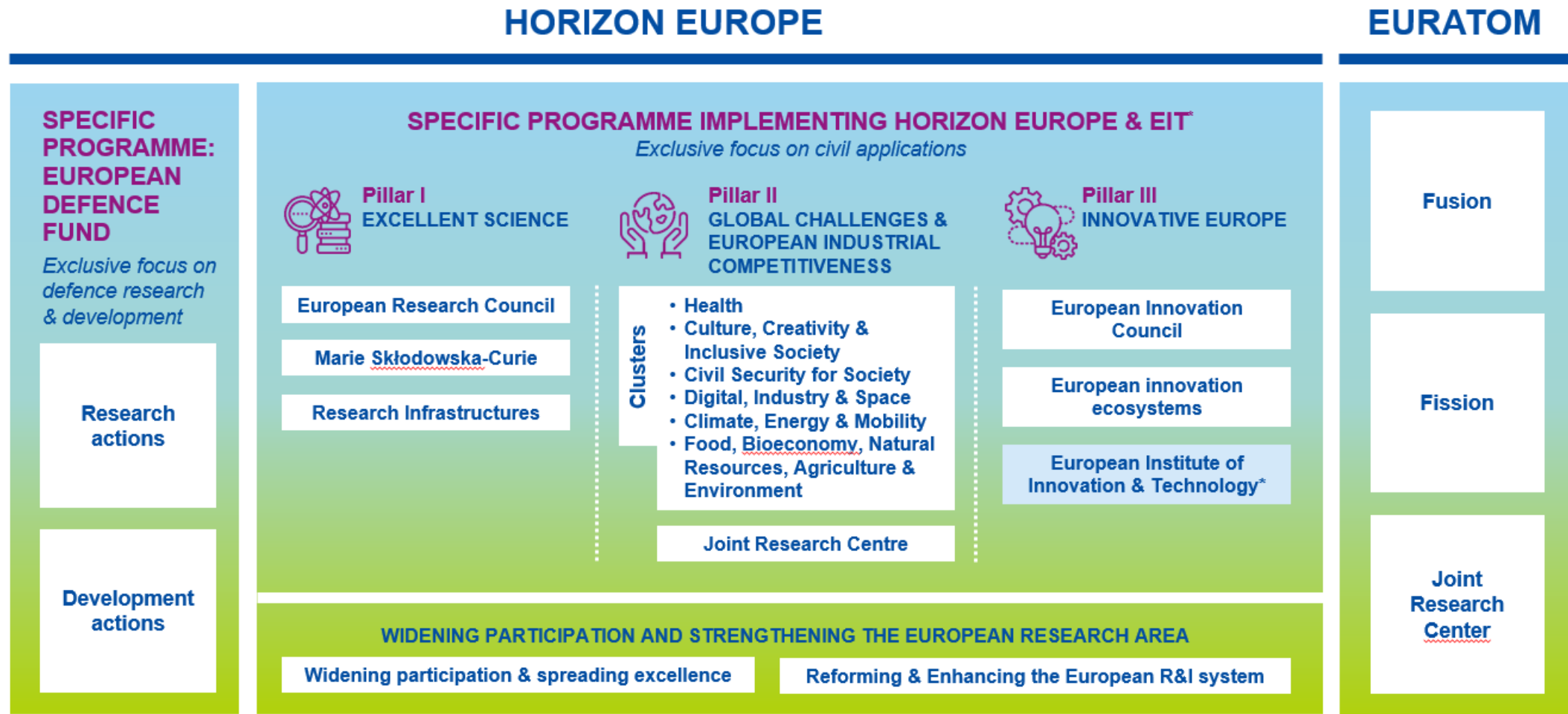IGLO - Evaluation novelties under Horizon Europe

7 September 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

SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND

Exclusive focus on defence research & development

- Research actions
- Development actions

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*

Exclusive focus on civil applications

Pillar I — EXCELLENT SCIENCE
- European Research Council
- Marie Skłodowska-Curie
- Research Infrastructures

Pillar II — GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

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

Joint Research Centre

Pillar III — INNOVATIVE EUROPE
- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA
- Widening participation & spreading excellence
- Reforming & Enhancing the European R&I system

EURATOM
- Fusion
- Fission
- Joint Research Center

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

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Admissibility & Eligibility

Proposal page limit: Substantial reduction in maximum length:

RIAs and IAs	CSAs	COFUND	First stage proposals	EIC Pathfinder
45 pages	30 pages	70 pages	10 pages	17 pages

Check for exceptions in your topics!!!

Consortium composition (collaborative projects)

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

- CSAs: at least one legal entity established in a MS, AC or, if provided for in the specific call conditions, in another third 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.
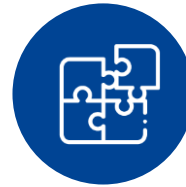
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Application form (proposal template)

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?

Evaluation (award) criteria

Same criteria as in H2020

Same three award criteria: '**Excellence**', '**Impact**' and '**Quality and efficiency of the implementation**'. Excellence only for ERC.
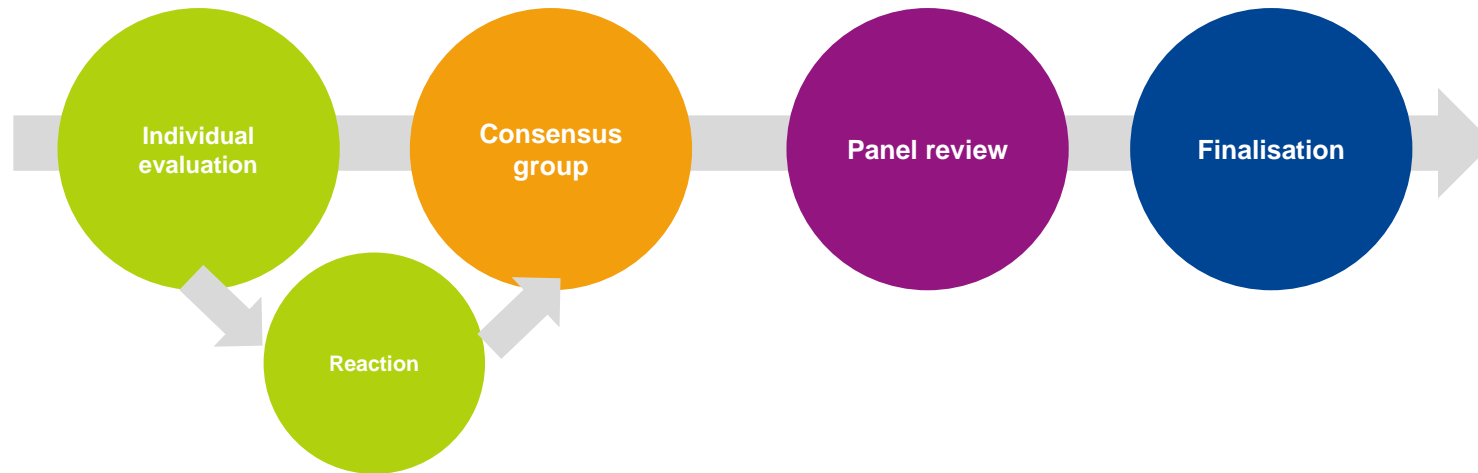
Adapted following lessons learnt

- 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 process

Piloting new processes

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Individual evaluation → Consensus group → Panel review → Finalisation
         ↓                    ↑
      Reaction ──────────────┘
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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.

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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

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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.

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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

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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

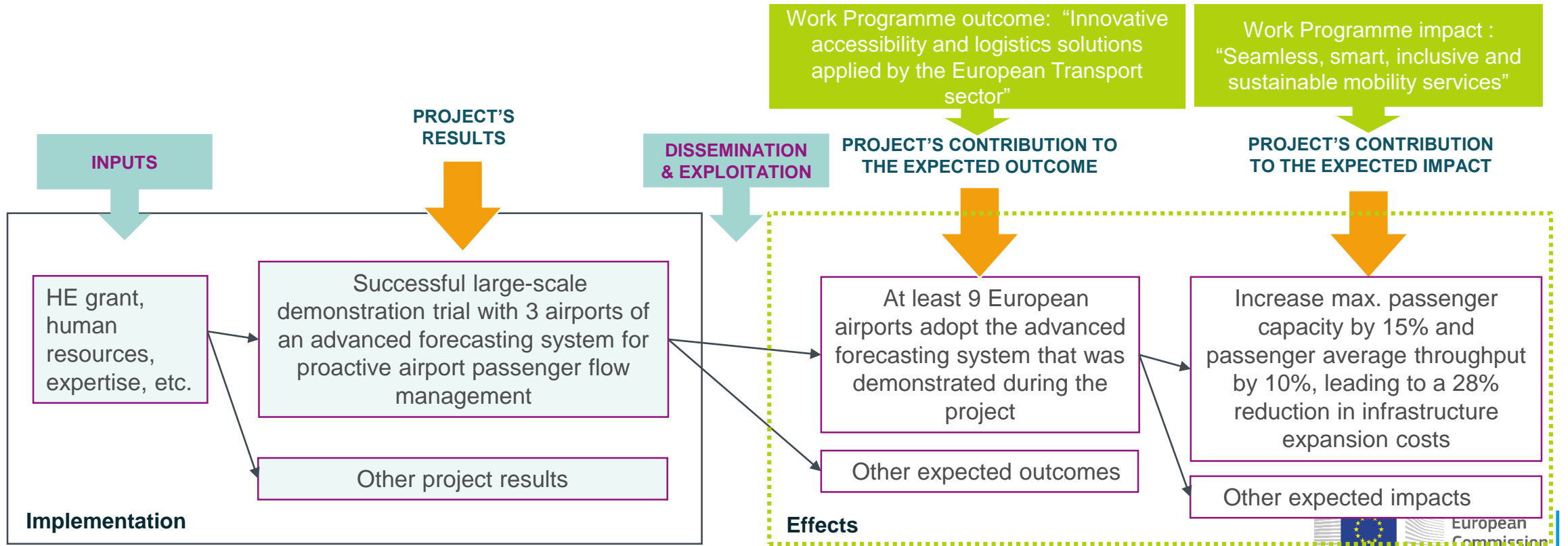## Why is gender dimension important?

- 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 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.

Work Programme outcome: "Innovative accessibility and logistics solutions applied by the European Transport sector"

Work Programme impact : "Seamless, smart, inclusive and sustainable mobility services"

INPUTS

PROJECT'S RESULTS

DISSEMINATION & EXPLOITATION

PROJECT'S CONTRIBUTION TO THE EXPECTED OUTCOME

PROJECT'S CONTRIBUTION TO THE EXPECTED IMPACT

HE grant, human resources, expertise, etc.

Successful large-scale demonstration trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management

At least 9 European airports adopt the advanced forecasting system that was demonstrated during the project

Increase max. passenger capacity by 15% and passenger average throughput by 10%, leading to a 28% reduction in infrastructure expansion costs

Other project results

Other expected outcomes

Other expected impacts

Implementation

Effects

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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'

Strategic Planning and Programming (EC)

STRATEGIC PLAN

WORK PROGRAMME

Application process (researchers)

PROJECT PROPOSALS

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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.

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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

Artificial intelligence

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

Under Horizon Europe, the **technical robustness*** of the proposed AI 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.

AI-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.
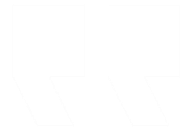
For more information…

… check recorded webinars:

- **'How to prepare a successful proposal in Horizon Europe'** (24 March 2021). See recorded session [here].
- '**A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don't forget the other aspects**' (21 April 2021). [Recorded session]
- **'The Funding & Tenders Portal for beginners'** (27 May 2021). [Recorded session]
- **'All you need to know on D&E under Horizon Europe'** (9 June 2021). [Recorded session]
- **'How to prepare a successful innovation procurement proposal for Horizon Europe'** (22 June 2021). [Recorded session]
- **'Horizon Europe: key changes to the Ethics Appraisal Process'** (18 July 2021). [Recorded session]
- **R&I Days 2021: workshop on 'Tips and tricks while writing your HE proposal'** (23 June 2021). [Recorded session]
- **Thematic info-days per cluster** (June – July 2021). [Event page]

Check the news section of the F&T Portal regularly:
https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home

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Thank you!

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