

# European Innovation Council

## EIC Pathfinder

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# UK Participation – Association to Horizon Europe



- On 24 December 2020, the UK Government announced the conclusions of the negotiations with the European Commission.
- Included [confirmation](#) that the UK will associate to Horizon Europe
- The agreement also included participation in:
  - JRC activities, Article 185 & 187 Partnerships, the EIT, ERICs, ERAC, Euratom ITER and Copernicus
- The intent is for the UK to associate in time to participate from the beginning of the programme
- Withdrawal Agreement is still in place for H2020 funded projects

# Three Pillar Structure



- Aims at maximising the effects of European research and innovation investments
- Ensure a sustainable, fair and prosperous future for people and planet based on European values
- Boosting the Union's competitiveness and growth

## Pillar 3 – Innovative Europe – European Innovation Council (EIC)

- Provides a coherent and connected system of innovation funding that supports projects with market potential
- Principally targeted at Small- and Medium-sized Enterprises (SMEs) and industry
- EIC will serve as a 'one-stop shop' for European innovators
- Channel funding through three main schemes

### Pathfinder

- Based on the FET Open
- Support international consortia working on establishing future and emerging breakthrough technologies through collaborative research and innovation projects

### Transition

- For 2021, only open to ERC Proof of Concept grantees and EIC Pathfinder grantees
- Matures a novel technology and develops a business case to bring it to market

### Accelerator

- Based on the SME Instrument
- Will bridge the financing gap between late stages of innovation activities and market take-up, to effectively deploy breakthrough market-creating innovation and scale up companies where the market does not provide viable financing

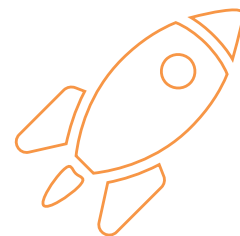
# Focus of EIC Pathfinder



Turn  
excellent  
science into  
breakthrough  
technology



Prepare  
industry for  
leadership in  
future  
technologies



Support  
competitiveness  
by providing  
radically new tech  
ideas

## Types of Calls

**EIC  
Pathfinder  
Open**

**EIC  
Pathfinder  
Challenges**

# EIC Pathfinder Open

- No predefined thematic priorities, open to proposals in any field of science, technology or application.
- Explore foundations for radically new future technologies, high-risk & high-impact interdisciplinary research that underpins technological breakthroughs.
- Pathfinder goes beyond what is already known. Visionary thinking can open up promising avenues towards powerful new technologies.
- Applicants are typically visionary scientists, entrepreneurial researchers and, research organisations, start-ups, high-tech SMEs and industrial stakeholders interested in technological research and innovation.
- Supports early stage development of such future technologies (e.g. various activities at low Technology Readiness Levels 1-4).

# Pathfinder 'gatekeepers'

EIC Pathfinder Open – must meet the following “gatekeeper” criteria:



Convincing long term vision of a radically new technology that has the potential to have a transformative positive effect to our economy and society



Concrete, novel and ambitious science-towards-technology breakthrough, providing advancement towards the envisioned technology



High-risk/high-gain research approach and methodology, with concrete and plausible objectives



## EIC Pathfinder Open – further details

- 17-page proposal
- up to €3 million (indicative)
- consortium of minimum 3 partners from minimum 3 EU or Associated Countries (at least one from an EU Member State)
- Expected outcome of your project is the proof of principle
- Projects from Pathfinder are eligible to:
  - Apply to additional grants of up to €50,000
  - Apply to EIC Transition activities
  - Apply via Fast track scheme to EIC Accelerator

## EIC Pathfinder Open – Evaluation criteria

### Excellence (Threshold: 4/5, weight 60%)

Long-term vision: How convincing is the vision of a radically new technology that has the potential to have a transformative positive effect to our economy and society?

Science-towards-technology breakthrough: How concrete, novel and ambitious is the proposed science-towards-technology breakthrough with respect to the state-of-the-art? What advancement does it provide towards realising the envisioned technology?

Objectives: How concrete and plausible are the proposed objectives? To what extent are high-risk/high-gain research approach and methodology appropriate for achieving them?

Interdisciplinarity: How relevant is the interdisciplinary approach from traditionally distant disciplines for achieving the proposed breakthrough?

## EIC Pathfinder Open – Evaluation criteria

### **Impact (Threshold: 3.5/5, weight 20%)**

Innovation potential: How adequate are the proposed measures for protection of results and any other exploitation measures to facilitate future translation of research results into innovations with societal or economic impact? How suitable are the proposed measures for empowering key actors that have the potential to take the lead in translating research into innovations?

Communication and Dissemination: How convincing and wide reaching are the proposed measures and plans for public/stakeholder engagement and for raising awareness about the project outcomes, including through Open Science, with respect to their potential to establish new markets and/or address global challenges?

## EIC Pathfinder Open – Evaluation criteria

### Quality and efficiency of the implementation (Threshold 3/5, weight 20%)

Quality of the consortium: To what extent do the consortium members have all the necessary high quality expertise for performing the project tasks?

Work plan: How coherent and effective are the work plan (work packages, tasks, deliverables, milestones, timeline, etc.) and risk mitigation measures in order to achieve the project objectives?

Allocation of resources: How appropriate and effective is the allocation of resources (person-months and equipment) to tasks and consortium members?

# EIC Pathfinder Open – deadline

- The call deadline for submitting your proposal:
  - 19 May 2021 at 17h00 Brussels local time

## 2021 call update:

- 908 applications received (5,341 participants in total)
- Mainly HEIs and research institutes but also private sector (29%), of which 67% are SMEs
- 55 applications are expected to be funded (success rate ~ 6.1%)

## Case study: ANGIE – Nanorobots to target cancers and clear blood clots

The project will develop magnetically steerable wireless nanodevices for the targeted delivery of therapeutic agents via the body's vascular system. By creating a baseline of knowledge and skills for localised targeted drug delivery, the project will increase health professionals' capacity to treat multiple chronic diseases.

- ETH Zurich
- Julius-Maximilians-Universität of Würzburg
- University of Crete
- University of Barcelona

<https://cordis.europa.eu/project/id/952152>



# EIC Pathfinder Challenges

- Aim to build on new, cutting-edge directions in science and technology to disrupt a field and a market
- Create new opportunities by realising innovative technological solutions grounded in high-risk/high-gain R&D
- **EIC Programme Managers** oversee a specific EIC Pathfinder Challenge and actively steer the portfolio towards the goals of each Challenge
- Projects in a Challenge are expected to participate in portfolio activities and remain flexible in the light of developments.

# EIC Pathfinder Challenges – Topics for 2021



## Awareness inside:

- For projects to develop new concepts of awareness that are applicable to systems other than human.



## Tools to measure & stimulate activity in brain tissue:

- For projects to develop novel neurotechnologies to diagnose or treat brain, spinal cord or peripheral nerve-related disorders and which can be rapidly accepted by clinicians and patients.



## Emerging Technologies in Cell & Gene Therapy:

- For breakthrough projects that propose novel concept-based technological solutions or technological platforms far beyond the current state-of-the-art.



## Novel routes to green hydrogen production:

- For projects to develop novel processes and technologies to produce Green H<sub>2</sub>, at different scales (from small to large) and with higher flexibility.



## Engineered living material:

- For projects to develop new technologies and platforms for the controlled and made-on-demand production of engineered living materials with multiple functionalities, shapes and scales.



## EIC Pathfinder Challenges – further detail

- Support collaborative research and innovation from consortia (min. 2 entities) or applications from single legal entities. Eligibility criteria may vary depending on the Challenge
- Evaluation will take into account the score and portfolio aspects
- 24-page proposal
- up to €4 million (indicative)
- Single legal entities or consortium of minimum 2 partners from different MS/AC

## EIC Pathfinder Challenges – Evaluation approach

- A remote evaluation by EIC expert evaluators will assess each application separately against the defined evaluation criteria.
- An EIC evaluation committee will consider all proposals passing the first step together in order to assess the best portfolio of projects to achieve the specific objectives of the Challenge. The evaluation committee will be composed of EIC expert evaluators and EIC Programme Managers.

The evaluation committee may also propose adjustments to the proposals in as far as needed for the consistency of the portfolio approach.

## EIC Pathfinder Challenges – Evaluation criteria

### **Excellence (Threshold: 4/5; weight 60%)**

Relevance to the Challenge: How relevant are the project's objectives in contributing to the overall goal and the specific objectives of the Challenge?

Novelty: How novel and ambitious are the proposed technological breakthroughs with respect to the state-of-the-art? How relevant and effective are they in achieving the expected outcomes of the Challenge?

Plausibility of methodology: To what extent is the Research, Development & Innovation methodology described in the proposal appropriate to reach its objectives? How plausible is it that the objectives set out in the proposal are achieved within the time span of the project?

# EIC Pathfinder Challenges – Evaluation criteria

## Impact (Threshold: 3.5/5; weight 20%)

Potential Impact: To what extent the successful completion of the project may have economic and societal impact and how credible it is argued and quantified (e.g. via KPIs or equivalent)? How appropriate are the expected outcomes of the project to contribute to the potential economic or social impacts of the Challenge?

Innovation potential: How adequate are the proposed measures for protection of results and any other exploitation measures to facilitate future translation of research results into innovations with societal or economic impact? How suitable are the proposed measures for empowering key actors that have the potential to take the lead in translating research into innovations?

Communication and Dissemination: How convincing and wide reaching are the proposed measures and plans for public/stakeholder engagement and for raising awareness about the project outcomes, including through Open Science, with respect to their potential to establish new markets and/or address global challenges?

## EIC Pathfinder Challenges – Evaluation criteria

### Quality and efficiency of the implementation (Threshold 3/5; weight 20%)

Quality of the applicant/consortium (*depends if mono or multi-beneficiaries*): To what extent do(es) the applicant/consortium members have all the necessary high quality expertise for performing the project tasks?

Work plan: How coherent and effective are the work plan (work packages, tasks, deliverables, milestones, timeline, etc.) and risk mitigation measures in order to achieve the project objectives?

Allocation of resources: How appropriate and effective is the allocation of resources (person-months and equipment) to tasks and consortium members?

## EIC Pathfinder Challenges – deadline

- Call opens 15 June 2021
- Call deadline for submitting your proposal
  - 27 October 2021 at 17h00 Brussels local time.
- Submit your proposal via the European Funding & Tender Opportunities Portal
- You will be informed about the outcome of the evaluation 5 months after call deadline (indicative), and your grant agreement will be signed by 8 months after call deadline (indicative).

## Useful links

- [2021 EIC Work Programme](#)
- [EIC Pathfinder proposal template](#)
- [Tips for applicants](#)
- [EIC Pathfinder FAQs](#)
- [EIC Applicants' day presentations](#)

Thank you