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Annex

European Innovation Council (EIC) Work Programme 2023

European Innovation Council

European Innovation Council (EIC) established by the European Commission, under the Horizon Europe programme (2021-27)

Who should read this document

This document is the annual European Innovation Council (EIC) Work Programme funded by the European Union's Horizon Europe Framework Programme for Research and Innovation. It is the legal document which sets out how the EIC will allocate its funding for the corresponding year. It is prepared following the advice of the EIC Board and adopted by the European Commission.

The EIC aims to **identify and support breakthrough technologies and game-changing innovations** with the potential to scale up internationally and become market leaders. It supports all stages of innovation from research and development on the scientific underpinnings of breakthrough technologies, from validation and demonstration of breakthrough technologies and innovations to meet real world needs, to the development and scaling up of start-ups and small and medium-sized enterprises (SMEs).

Financial support is provided through three main funding schemes: the 'EIC Pathfinder' for advanced research on breakthrough / game-changing technologies; 'EIC Transition' for transforming research results into innovation opportunities; and the 'EIC Accelerator' for individual companies to develop and scale up breakthrough innovations with high risk and high impact. All EIC Awardees, as well as selected applicants, have access to a range of EIC Business Acceleration Services providing access to leading expertise, corporates, investors and ecosystem actors. The EIC also provides additional activities such as prizes.

Potential applicants, and those interested in the EIC in general, can find more information, including the background to the EIC mission, organisation and practical guidance, on the EIC website: https://eic.ec.europa.eu

Potential applicants who wish to apply for EIC funding will need to apply through the EU Funding and Tender Opportunities portal (https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home), which can also be accessed via the EIC website (https://eic.ec.europa.eu). This contains all the information necessary as well as details of the relevant **National Contact Point** who can provide information and personalised support for applicants from the country.

I. Introduction

Strategic goals and Key Performance Indicators

The EIC was established to identify, develop and scale up breakthrough technologies and companies, which are critical for EU policies to achieve the green and digital transition and help ensure future open strategic autonomy in critical technologies.

The EIC Board provides strategic advice for the EIC Work Programme.[1] For the period 2021-27 the EIC Board has recommended six strategic goals, with associated Key Performance Indicators (KPIs), in order to provide clear direction, track progress, and guide implementation and potential new actions.[2] The baselines and progress against KPI targets will be included in the annual EIC impact reports. The KPIs represent mid to long term targets.

Six Strategic Goals for the EIC:

1. To be the investor of choice for those with visionary ideas: The EIC must have continent-wide recognition and traction with high potential start-ups, entrepreneurs and innovative researchers, in particular from underrepresented groups such as women innovators and those from less developed ecosystems.
2. To crowd in €30-50 billion investment into European deep tech: The EIC must bridge a critical financing gap faced by deep tech companies and leverage the EIC Fund to influence the allocation of private assets in support of deep tech companies in the EU.
3. To pull through high risk technologies in critical areas for society and open strategic autonomy: The EIC must take risks and support the most promising deep tech opportunities from the earliest stage to commercial scale up, delivering relevant innovations for society and safeguarding against dependencies for key technologies.
4. To increase the number of European unicorns and scale ups: The EIC must support the growth and scaling up of European start-ups and SMEs to match and ultimately surpass the performance of the USA and Asia.
5. To catalyse innovation impacts from European public research and innovation: The EIC must build partnerships to draw on, and commercialise, the best ideas from the research base across the EU, and scale-up start-ups funded under other EU or national initiatives.

[1] In line with Article 12 (1) (b) Council Decision 2021/764

[2] European Innovation Council (EIC) Board (E03823) at https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups?lang=en

6. To achieve operational excellence: The agility and speed of EIC operations and decision making must align with the expectations of applicants, investors and market norms.

Overview of the 2023 Work Programme

This is the Work Programme for the implementation of European Innovation Council (EIC) activities in 2023.

The funding and support is organised into three main funding schemes: the EIC Pathfinder for advanced research to develop the scientific basis to underpin breakthrough technologies (Section II); the EIC Transition to validate technologies and develop business plans for specific applications (Section III);[3] and the EIC Accelerator to support companies (SMEs, start-ups, spin-outs and in exceptional cases small mid-caps) to bring their innovations to market and scale up (Section IV). In each case, the direct financial support to innovators is augmented with access to a range of Business Acceleration Services (Section V).

Linkages between these funding schemes will be maximised through proactive management (see below) and new approaches, such as additional 'Booster' grants to ongoing EIC Pathfinder and EIC Transition projects (Annex 5), a future Marketplace to connect preliminary and final research results with entrepreneurs and investors, and the Fast Track scheme to accelerate the access of successful projects from EIC Pathfinder and EIC Transition to the EIC Accelerator (Annex 3).

This Work Programme has been prepared in coordination with the first Horizon Europe Strategic Plan 2021-2024 and the Horizon Europe Work Programme 2023-2024,[4] and in particular its part on European Innovation Ecosystems, with the aim of integrating the direct support to innovators through the EIC with improvements to the overall European ecosystem. The EIC will also link with other components of Horizon Europe, including the European Research Council (ERC), the European Institute of Innovation and Technology (EIT) and its Knowledge and Innovation Communities (KICs), and with other Union funding programmes, such as InvestEU.

The majority of funding will be awarded through open calls with no predefined thematic priorities ('EIC Open').[5] The EIC Open funding is designed to enable support for any technologies and innovations that cut across different scientific, technological, sectoral and application fields or represent novel combinations.

[3] EIC Transition applies the Fast Track to Research and Innovation Procedure (FTRI) as defined in Horizon Europe.
[4] Horizon Europe Work Programme
[5] As far as MFF budget is concerned (i.e. not taking into account NGEU budget).

The challenge driven approach ('EIC Challenges') provides funding to address specific technological and innovation breakthroughs. These challenges take into account EU priorities for transitioning to a green, digital and healthy society, as well as the overall strategic planning for Horizon Europe, and the inputs of stakeholders, experts and the EIC Board.

Table 1. Summary of main calls in 2023[6]

			EIC Open		EIC Challenges		
Call	**Who can apply**	**What for**	**Deadlines**	**Indicative Budget (EUR million)**	**EIC Challenge**	**Deadlines/ Cut-offs**	**Indicative Budget (EUR million)**
EIC Pathfinder	Consortia of at least three different independent legal entities[7] established in at least three different eligible countries. Additionally, single applicants or small consortia (two partners) for EIC Pathfinder Challenges only.	Grants of up to EUR 3 million (open) or EUR 4 million (challenges), or more if duly justified, to achieve the proof of principle and validate the scientific basis of breakthrough technology (Technology Readiness Levels 1-4)	7 March 2023	179.50	- Clean and efficient cooling - Construction digitalisation - Precision nutrition - Responsible electronics - In-space solar energy	18 October 2023	163.50
EIC Transition	Single applicants (SMEs, spin-offs, start-ups, research organisations, universities) or small consortia (two partners) or consortia of three to five different independent legal entities established in at least three different eligible countries. Proposals must build on eligible EU-funded project results (see call text)	Grants of up to EUR 2.5 million to validate and demonstrate technology in application-relevant environment (TRL 4 to 5/6) and develop market readiness	- 12 April 2023 - 27 September 2023	67.86	- Micro-Nano-Bio devices - Environmental intelligence - Chip-scale optical frequency combs	- 12 April 2023 - 27 September 2023	60.50
EIC Accelerator	Single start-ups and SMEs (including spin-outs), individuals (intending to launch a start-up/ SME) and in exceptional cases small mid-caps (fewer than 499 employees)	Grant component below EUR 2.5 million for innovation activities (TRL 5/6 to 8); EUR 0.5 up to 15 million[8] investment component for scaling up and other activities. Grant only, grant first and investment only component under certain conditions, namely for non-bankable SMEs, including start-ups, which have already received a grant-only support.	Short applications: continuous Full applications : - 11 January 2023 - 22 March 2023 - 7 June 2023 - 4 October 2023	612.98	- Biomarkers for cancer - Decontamination for pandemic management - Energy storage - New European Bauhaus - Quantum or Semiconductor components - Resilient agriculture - Space technologies and services	Short applications: continuous Full applications : - 22 March 2023 - 7 June 2023 - 4 October 2023	524.73

[6] This table provides a simplified overview. All applicants need to read the relevant sections for the full information on eligibility and conditions for funding. The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening. The Director-General responsible may delay the deadline(s) by up to two months.

[7] E.g. research organisations, universities, SMEs, industry.

[8] In duly justified cases the investment component can be higher than EUR 15 million, see call text.

Main changes with respect to the EIC Work Programme 2022

In this Work Programme the main provisions of the EIC Open calls and EIC Prizes continue to remain stable, while incorporating necessary improvements, notably (see call texts for full details):

- For Transition, opening of eligibility for the Challenges, including to results stemming from European Defence Fund projects;
- For Accelerator, adjustments to the conditions for resubmission and a continuation of the pilot allowing requests for investment components above EUR 15 million in duly justified cases;
- A new approach to Business Acceleration Services enabling EIC supported projects and companies to access leading existing services from across Europe;
- For Prizes, a coordination between the Women Innovators Prize and the EIT Prize for woman innovators, and a new theme for the European Social Innovation Prize 2023 on 'fighting energy poverty' in support of RePowerEU.

The areas defined for the EIC Challenges are, for the most part, different from the Challenges included in the two previous EIC EIT Work Programmes. A number of the Challenges have been designed to support broader EU policy objectives such as RePowerEU, the Chips Act, food security and EU missions. The methodology for the selection of these challenges as well as information on a wider range of areas considered for EIC challenges is provided in the EIC Emerging Technologies Report.[9]

This Work Programme will pilot a number of actions in support of the Commission Communication on the New European Innovation Agenda[10] which underlines the importance of deep tech innovation for achieving EU priorities and sets out an important role for the EIC to implement various actions including:

- A new scheme to increase the flow of innovation talent into deep tech start-ups through internships of promising researchers (see Section VII.7);
- Enhanced support to woman innovators through opening the Fast Track to the Accelerator to companies supported by Women Tech.EU (see Annex 3) and opening the EIC Women Leadership Programme to women-led deep-tech start-ups from the EIT;
- A new pilot support the uptake of innovative solutions developed by EIC supported companies from procurers (see Section V.6);

[9] EIC Working Paper 1/2022.
[10] COM(2022)332

- The roll out of Innospace Platform as a pan-European platform for exchanges applying to the EIC, for fostering interactions between early results and applications, and interconnecting the wider EU innovation community (initially funded under 2021 EIC Work Programme, with Expert Group advice under the 2022 and 2023 Work Programmes).

Key features of EIC support

A combination of financial and non-financial support to accelerate and grow EIC innovations and companies

The EIC support goes far beyond funding and it aims at supporting the emergence, acceleration and growth of EIC innovations and deep tech companies. In order to further leverage the EIC investments, all EIC Awardees will be provided with access to a range of externally contracted, bespoke EIC Business Acceleration Services (BAS) at any stage of development of their activities. The EIC uses its pan-European reach to connect EIC Awardees with partners from all around Europe and beyond, thereby also contributing to further develop the innovation ecosystem in Europe by providing access to and from a deal flow of top-level European innovators.

A number of support actions included in this Work Programme will allow the integration and development of current EIC services such as the integration of the EIC Accelerator AI platform and the EIC Community platform into a wider virtual space, the 'Innospace Platform', that is being developed following the tender funded by the EIC Work Programme 2021 and is expected to start operating in the course of 2023. Innospace Platform will include as a subcomponent the EIC Space, dedicated to the implementation and management of all EIC operations, including the EIC Accelerator AI Platform, the upcoming EIC Marketplace, the EIC Community platform, etc. The Innospace Platform will be open to all interested stakeholders and parties, to stimulate the European innovation ecosystem by fostering the circulation of ideas, bringing actors together to further develop innovations and bridge them with funding opportunities, public or private including the EIC. The aim is to develop further synergies with other EU, national and regional programmes, as well as interested innovation agencies to overall enhance support to innovation across the Union.

Proactive project and portfolio management by EIC Programme Managers

Support awarded by the EIC, and in particular by the EIC Pathfinder, is more than a one-off funding of a research project. By covering the full innovation cycle, whenever possible EIC intends to push results to higher Technology Readiness Levels (TRL). Whilst

EIC Pathfinder Awardees will bear no obligation regarding the development of innovation as part of their project, the EIC will encourage and stimulate further maturation of preliminary findings and results by providing guidance but also additional and continuous support, including financial.

Moreover, the EIC takes a proactive approach of project and programme management to develop business and technology-based visions. This is performed by EIC Programme Managers,[11] whose task is to identify, develop and implement such visions and to nurture potential market-creating innovations out of EIC funded projects and activities. Proactive management applies to EIC Pathfinder, EIC Transition and EIC Accelerator projects and consists of the following:

- Proposals for funding will need to define a number of milestones that will be used to periodically review progress. Reviews will assess whether the activities foreseen to reach the milestone have been completed and will consider the results and outputs against the overall objectives. The reviews will be undertaken with the support of independent experts and overseen by EIC Programme Managers for projects within their portfolios.
- Following the reviews against milestones, the EIC support may be continued on the same basis, amendments may be requested or, in case the project has lost economic or technological relevance or not met agreed milestones, it may be suspended or even terminated. Reviews may also result in requests for amendments to ongoing or planned milestones, and deployment of some necessary EIC Business Acceleration Services (or other relevant ones, like those from EIC-KICs), including additional coaching days and access to crucial expertise. For EIC Pathfinder and EIC Transition projects, reviews may also involve an assessment to submit a proposal directly to the EIC Accelerator under the Fast Track scheme (see Annex 3) or to submit a proposal for additional EIC Booster grants (see Annex 5). In addition to the reviews, the EIC Awardees will be expected to keep the EIC regularly informed of progress and pre-alerted in case of difficulties.
- EIC funded projects may be included in one or more thematic or challenge-based portfolios of projects ('EIC Portfolios'), providing the projects with a productive setting in which to advance their ideas. For EIC Challenges, the portfolio will reflect the scope of the challenge ('Challenge Portfolio'). Projects to be funded through EIC Open topics may be requested to join one or more Thematic Portfolios. The

[11] Appointed in accordance with point 1.2.2. of Pillar III in Annex I to Council Decision 2021/764., EIC Programme Managers are temporary staff employed by the Agency to manage one or more EIC Portfolios.

EIC Portfolios will be overseen by EIC Programme Managers and the relevant EIC Awardees may be requested to participate in portfolio activities together with other projects or initiatives (examples of portfolio activities can be found in Annex 5).

- Following the selection of projects under EIC Pathfinder challenges, a common roadmap is developed setting out collective activities, objectives and milestones. The roadmap is prepared by the relevant EIC Programme Manager, following close consultation with EIC Awardees of the projects of the portfolio, consultation with relevant Commission services to ensure strong complementarities with other parts of Horizon Europe and, where appropriate, with other interested members of the EIC Community and other third parties. In order to take into account relevant changes in science and innovation or the portfolio's achievements or consistency, the objectives and roadmap of an EIC Challenge Portfolio may be revised. Based on any such revision, the Agency may request to amend the project activities, milestones and deliverables in accordance with the grant agreement. If the project has been selected under an EIC Challenge topic, and where no amendment can be agreed upon to ensure coherence with the updated objectives of the related Challenge Portfolio, the Agency may suspend or terminate the project in accordance with the grant agreement.
- EIC portfolio activities are identified and developed by EIC Programme Managers in consultation with the EIC Awardees of the projects in the EIC Portfolio, with relevant Commission services and where appropriate with other interested EIC Community members and third parties. They aim at developing cooperation within an EIC Portfolio in order to achieve its objectives, enhance research, prepare transition to innovation and stimulate business opportunities, and strengthen the EIC Community. Such activities may cover participation to conferences, workshops or meetings, experience and data sharing, and participation to any relevant EIC Business Acceleration Services events.

A tailored approach to proposal evaluation

The EIC approach to the evaluation of proposals is tailored to the objectives of each of the EIC funding schemes. For the most mature technologies, when business and market readiness levels are close to market funding, greater emphasis is put on face to face interviews with applicants and a simplified binary scoring (GO/ NO GO).

For the EIC Pathfinder, which supports science-towards-technology breakthrough research, the evaluation follows a peer review method where proposals are evaluated,

scored and ranked by experts based on weighted criteria and thresholds (see Section II).

For the EIC Transition, which funds innovation activities that go beyond the experimental proof of concept, proposals will first be evaluated remotely, scored and ranked based on criteria and thresholds. For the top ranked applicants which are invited to the face to face interview, the jury will decide based on a binary scoring (GO/NO GO, see Section III).

For the EIC Accelerator, which supports high risk/high gain innovations to go to the market and scale up, proposals will be evaluated remotely and at face to face interviews based on a binary scoring (GO/NO GO)[12] (see Section IV).

Policy of open access and Intellectual Property rights[13]

For the EIC Pathfinder, provisions will be applied to ensure open access to scientific publications and promote the uptake of research results (see Annex 2 on open science).

Moreover, the EIC aims to stimulate the cross-fertilisation and exploitation of results from EIC supported projects. Therefore, EIC Pathfinder and EIC Transition projects may be requested by EIC Programme Managers to actively share information about results (including preliminary findings), within their EIC Portfolio and with other relevant EIC projects and parties, as detailed in Annex 6. The goal is to stimulate and nurture potential innovation out of EIC Pathfinder or EIC Transition results and explore pathways to further development. This exchange of information between EIC Awardees will be without prejudice to their own legitimate interests to exploit the results or findings. To ensure full confidentiality, such sharing will be subject to non-disclosure obligations regarding confidential results, with EIC Awardees retaining the right on a case by case basis to fully disclose or not their intellectual property.

Without prejudice to ownership of results (including preliminary findings) by EIC Pathfinder and EIC Transition result owners, their inventors will be entrusted with appropriate access for the purpose of further development and exploitation be eligible to additional financial support and services offered by EIC, as further detailed in Annex 6.

[12] In line with Article 28(3) and Article 29(2) of the Horizon Europe Regulation (Regulation (EU) 2021/695) of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013, OJ L 170, 12.5.2021, p. 1, ("Horizon Europe Regulation").

[13] For the EIC Accelerator, the Intellectual Property rules are included in the contract and/or investment agreement.

EIC-EIT Collaboration

The EIC is progressively increasing collaboration and synergies with the EIT and its Knowledge and Innovation Communities (KICs) with the overall aim of strengthening the European Innovation Ecosystem. In this context, the EIC and the EIT agreed a Memorandum of Understanding (MoU) on 8 January 2021 identifying a range of areas to strengthen collaboration. A number of these areas are already supported through this and previous Work Programme(s), such as the implementation of the FastTrack process by EIT KICs, the integration of relevant advisory services provided by KICs into the EIC Business Acceleration Services, and the continued work on joint communication materials and data sharing. The New European Innovation Agenda presents a new momentum to take the collaboration forward as it contains a number of actions on which the EIC and EIT are called to collaborate, notably the launch of an innovation intern scheme, opening the EIC's Women Leadership Programme to women-led deep-tech start-ups from the EIT, and a coordination of the woman innovators prizes. Further measures will be considered in the future.

Outlook for 2024 and future years

The EIC has been set up as an agile organisation and the activities are expected to evolve and develop in each annual Work Programme based on advice from the EIC Board, experience from implementation and the dynamics of the world of innovation.

The main provisions of the EIC Open calls are expected to remain relatively stable to provide a significant level of predictability for applicants, while incorporating necessary improvements. The selection of EIC Challenges will continue to react to current technological, market and policy developments, including but not limited to the areas identified by the EIC Emerging Technologies report.

This Work Programme is the last one to include a financial contribution from the Next Generation EU budget and as a consequence the annual budget for future EIC Work Programmes will be lower. This will continue to ensure a balance between Open and Challenge funding.

Glossary[14]

The **EIC Board** oversees the strategy and implementation of EIC activities and provides advice on EIC Work Programmes. It comprises 20 leading innovators and innovative researchers, including the EIC President, and is appointed by the European Commission following an open call for expressions of interest. The EIC Board members are subject to strict rules concerning conflicts of interest and confidentiality.

The **Agency** entrusted by the European Commission with the implementation of Horizon Europe EIC activities is the European Innovation Council and Small and Medium-sized Enterprises Executive Agency (EISMEA).

The **EIC Fund** is an alternative investment fund (AIF) that has been established for the specific purpose of investing in companies selected by through EIC Accelerator calls. An external alternative investment fund manager (AIFM, the "EIC Fund Manager") manages the EIC Fund. The European Investment Bank (EIB) supports the EIC Fund as Investment Advisor.

The **EIC Fund Manager** makes investment and divestment decisions on the companies selected through the EIC Accelerator call by following a due diligence performed by the EIB according to the EIC Investment Guidelines.[15] The EIC Fund Manager manages the EIC portfolio of invested companies, supported by the EIB, and in close coordination with the grant support provided to investee companies by the European Commission and managed by the Agency, as well as the provision of Business Acceleration Services (including access to other potential investors via the EIC Co-Investment Platform) and the performance of technology due diligence by the Agency.

The **EIC Forum** brings different innovation drivers and levels of governance closer together to discuss openly and informally relevant policy issues.[16] The policy recommendations and activities of the EIC Forum will aim at supporting and complementing initiatives undertaken in Horizon Europe.

The **EIC Awardees** are the consortia, institutions, natural persons and/or companies named in an EIC grant agreement (for EIC Pathfinder, EIC Transition) or EIC contract or investment agreement for EIC Accelerator, as well as winners of EIC Prizes. In the agreements and contracts, the legal entities receiving support (including but not limited to companies, research and technology organisations) are called 'beneficiaries'.

[14] These definitions are complemented by specific definitions regarding provisions concerning management of EIC Portfolios and Intellectual Property for EIC Pathfinder and EIC Transition actions detailed in Annex 7.

[15] EIC Investment Guidelines - Horizon Europe March 2022

[16] The EIC Forum is supported under the 'European Innovation Ecosystems' part of the Horizon Europe work programme.

The Horizon Europe model grant agreements and contracts are available on the EIC website.

EIC Programme Managers are high-level experts in specific fields of technology, business and innovation and who manage one or more **EIC Portfolios**. They are appointed to work in the Agency for a limited duration, to develop visions for breakthrough technologies and innovations, and to proactively manage portfolios of projects to achieve these breakthroughs. They are supported by EIC Project Officers as well as by EIC Tech to Market advisers. The EIC Programme Managers are subject to strict rules concerning conflicts of interest and confidentiality.

EIC Tech to Market Advisers are agents employed by the Agency to assist primarily the EIC Transition projects, in agreement with EIC Programme Managers and in cooperation with Project Officers, with the design and the execution of the transition plan and to facilitate access to, and follow-up of, the relevant Business Acceleration Service offerings.

EIC Project Officers are officials and other agents appointed by the Agency to manage an action.

EIC expert evaluators are external independent experts in their field who assess proposals for funding against the criteria defined in the Work Programme. The EIC expert evaluators are selected from the Funding and Tender Opportunities portal Expert Database.

EIC Juries are panels of specifically selected EIC experts evaluators (including, for example, independent investors, business angels and entrepreneurs) who conduct face to face interviews with applicants to the EIC Transition and EIC Accelerator calls as part of the evaluation procedure. EIC Programme Managers and, in the case of the EIC Accelerator representatives of the EIB as Investment Adviser to the EIC Fund, may participate in jury interviews as observers, but will not be members of the jury and will not take part in the jury's decisions. **Face to face interviews** may take place in either a physical or virtual setting.

EIC expert monitors are external independent experts in their field who assist the Agency and in some cases EIC Programme Managers in the monitoring of projects.

EIC evaluation committees are panels of **EIC expert evaluators** who evaluate proposals and rank those that have passed the applicable thresholds. In the case of EIC Pathfinder Challenges, EIC Programme Managers participate as members in some evaluation committees as specified in the call texts.

EIC Business Acceleration Services (BAS) are externally contracted services provided to the EIC Awardees and other eligible organisations to support the commercialisation of EIC innovations and the scaling up of EIC companies, namely access to coaches and training, especially through the services of the EIC Ecosystem Partners, and access to global partners (leading corporates, investors, procurers, distributors, clients), see Section V for more detail.

EIC business coaches are independent external experts with entrepreneurial and fundraising background who provide business development insights and improvement guidance to EIC Awardees, and applicants. They are part of the EIC Business Acceleration Services.

EIC Community platform is a platform available to all EIC Awardees, facilitating links to Business Acceleration Services as well as enabling discussions, exchanges and match making. The EIC Community platform is a virtual meeting place where EIC Awardees can connect with peer inventors, researchers, innovators and entrepreneurs as well as other actors from the ecosystem, including corporates, investors, business angels, mentors and coaches, innovation procurers, innovation agencies, business associations, clusters, accelerators, incubators, technology transfer offices and many more. The EIC Community Platform will become part of Innospace Platform.

EIC Ecosystem Partners are organisations that have been selected to provide EIC Business Acceleration Services or other support to EIC Awardees. EIC Ecosystem Partners can include, for example, investors, business angels, mentors and coaches, innovation agencies, business associations, clusters, accelerators, incubators, technology transfer offices, venture builders, etc. They may also include the Knowledge and Innovation Communities (KICs) of the EIT, members of the Enterprise Europe Network and Startup Europe, and the European IP Helpdesk.

The **EIC Marketplace** will be a trusted IT platform between EIC Community members for exchange of information and data on EIC Pathfinder and Transition projects, in order to cross-fertilise activities and stimulate and nurture potential innovation. The EIC Marketplace is expected to become available during the course of 2023 as part of Innospace Platform.

EIC Portfolio is a set of actions presenting thematic similarities (**Thematic Portfolio**) or contributing to the same EIC Challenge (**Challenge Portfolio**).

EIC Innospace Platform will be a virtual platform allowing interactions and collaborations among European innovators. Starting from 2023, the Innospace Platform will be open to all interested stakeholders and parties to stimulate the European innovation ecosystem by fostering the circulation of ideas, bringing actors

together to further develop innovations and bridge them with funding opportunities, public or private including the EIC. The aim is to develop further synergies with other EU, national and regional programmes, as well as interested innovation agencies to overall enhance support to innovation across the Union. The EIC Innospace Platform will include the **EIC Space** to support the management of EIC operations including different modules, such as the future EIC Marketplace, and the current EIC Community platform and EIC Accelerator AI platform.

National Contact Points (NCPs) are appointed by Member States and Associated Countries to provide guidance, practical information and assistance to applicants on all aspects of participation in Horizon Europe.

The **Enterprise Europe Network (EEN)** is a network of business intermediary organisations (chambers of commerce, technology poles, innovation support organisations, universities and research institutes, regional development organisations) that help Small and Medium-sized Enterprises (SMEs) innovate and grow internationally.

Deep tech is technology that is based on cutting-edge scientific advances and discoveries and is characterised by the need to stay at the technological forefront by constant interaction with new ideas and results from the lab. Deep tech is distinct from 'high tech' which tends to refer only to R&D intensity.

Technology Readiness Levels (TRLs) provide a guide to the stage of development. TRLs are used in the Work Programme for guidance, but do not preclude support for non-technological innovations. A strong degree of importance will also be given to market readiness and business readiness,[17] as described in the award criteria of the call texts. The following definitions of TRLs apply, recognising that there are important differences between technological fields:[18]

TRL1 - basic principles observed

TRL2 - technology concept formulated

TRL3 - experimental proof of concept

TRL4 - technology validated in lab

TRL5 - technology validated in relevant environment

TRL6 - technology demonstrated in relevant environment

[17] Further information on market readiness and business readiness will be provided in the guidance documents.

[18] See for instance for health: https://euraxess.ec.europa.eu/career-development/researchers/manual-scientific-entrepreneurship/major-steps/trl

TRL7 - system prototype demonstration in operational environment

TRL8 - system complete and qualified

TRL9 - actual system proven in operational environment

Seal of Excellence: is a quality label which shows that a proposal submitted to a call for proposals exceeded all of the evaluation thresholds set out in the work programme. It is awarded to individual SMEs that apply for EIC Transition or EIC Accelerator funding and are assessed to meet the relevant evaluation criteria as defined in the call text, but which are not directly funded by the EIC. The EIC Seal of Excellence provides access to EIC Business Acceleration Services and facilitates funding from other sources.[19] The Seal of Excellence for the EIC Transition and EIC Accelerator is only awarded to those applicants who agree to share the data about their proposal (basic information on the proposal, the call and the proposer) with other alternative funding bodies which may decide to fund the project. The grant component of projects awarded a Seal of Excellence is exempted under the General Block Exemption Regulation (GBER)[20] from State Aid notification requirements under the same funding rates as those applicable to the EIC. The investment component of projects awarded a Seal of Excellence may be supported by other funders, including public funders in accordance with the State Aid rules.

Small and Medium-sized Enterprises (SMEs) is a category of micro, small and medium-sized enterprises. It consists of enterprises that employ fewer than 250 persons and have either an annual turnover not exceeding EUR 50 million, or an annual balance sheet total not exceeding EUR 43 million. A full definition is provided in Commission Recommendation 2003/361/EC. [21] Under the EIC, this category includes start-ups.

Small mid-cap means an enterprise employing up to 499 employees.[22]

Women-led SMEs (including start-ups) means companies where the position of either the Chief Executive Officer, Chief Technology Officer or Chief Scientific Officer is held by a woman at the time of application, interview and award of the EU financial support.

[19] Information on funding bodies that recognise and support Seal of Excellence projects is available at https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/seal-excellence.

[20] COMMISSION REGULATION (EU) 2021/1237 of 23 July 2021 amending Regulation (EU) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty.

[21] Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EC), OJ L 124, 20.5.2003, p. 36.

[22] Where the staff headcount is calculated in accordance with Articles 3, 4, 5 and 6 of Title I of the Annex of Commission Recommendation 2003/361/EC.

Women-led consortia means consortia where the consortium coordinator is a woman and at least 50% of Work Package leaders, including the consortium coordinator, are women.

II. EIC Pathfinder

The overall objective of the EIC Pathfinder for advanced research is to develop the scientific basis to underpin breakthrough technologies. It provides support for the earliest stages of scientific, technological or deep-tech research and development. Pathfinder projects aim to build on new, cutting-edge directions in science and technology to disrupt a field and a market or create new opportunities by realising innovative technological solutions through:

- 'EIC Pathfinder Open', open to support projects in any field of science, technology or application without predefined thematic priorities;
- 'EIC Pathfinder Challenges' to support coherent portfolios of projects within predefined thematic areas with the aim to achieve specific objectives for each Challenge.

II.1 EIC Pathfinder Open

- Do you have an ambitious vision for a novel future technology that could make a real difference to our lives?
- Do you see a plausible way of achieving the scientific breakthrough that will make this technology possible?
- Can you imagine collaborating with an interdisciplinary team of researchers and innovators to realise the proof of principle and validate the scientific basis of the future technology?

If the answer to each one of these questions is 'yes', then EIC Pathfinder Open may be the right call for you.

Why should you apply?

You should apply if you are looking for support from EIC Pathfinder Open to realise an ambitious vision for radically new technology, with potential to create new markets and/or to address global challenges. EIC Pathfinder Open supports early stage development of such future technologies (e.g. various activities at low Technology Readiness Levels 1-4), based on high-risk/high-gain science-towards-technology breakthrough research (including 'deep-tech'). This research must provide the foundations of the technology you are envisioning.

EIC Pathfinder Open may support your work, especially if it is highly risky: you may set out to try things that will not work; you may be faced with questions that nobody knows

the answer to yet; you may realise that there are many aspects of the problem that you do not master. On the contrary, if the approach you want to follow is incremental by nature or known, EIC Pathfinder Open will not support you.

Before applying to this call you should verify that your proposal meets all the following essential characteristics ('Gatekeepers'):

- 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 involves interdisciplinary research and development. By bringing diverse areas of research together, often with different perspectives, terminologies and methodologies, within individual projects and within a portfolio of projects, really new things can be generated and entirely new areas of research can be opened up. It is up to you to compose the team that you need, that you can learn from, and that you can move forward with.

The expected output of your project is the proof of principle that the main ideas of the envisioned future technology are feasible, thus validating its scientific and technological basis. Project results should include top-level scientific publications in open access. While your vision is expected to be worthwhile because of its potential for future impact, for instance to create new markets, improve our lives, or address global challenges, these are not expected to be addressed or achieved in the course of your EIC Pathfinder Open project. However, you are expected to take the necessary measures to allow future uptake to take place, for instance through an adequate formal protection of the generated Intellectual Property (IP). [23]

In addition, you are encouraged to involve and empower in your team key actors that have the potential to become future leaders in their field such as excellent early-career researchers or promising high-tech SMEs, including start-ups. Your project should reinforce their mind-set for targeted research and development aimed at high-impact applied results. This will strengthen Europe's capacity for exploiting the scientific discoveries made in Europe throughout the steps to market success or for solving

[25] IP includes industrial property (patents, trademarks, designs and geographic indications of source) and copyright. See also Section I and Annex 7 for more information on the EIC policy of Open Access and IP rights.

global challenges. You are particularly encouraged to empower female researchers in your project and to achieve gender balance among your work package leaders.

Can you apply?

This call is open for collaborative research. Your proposal must be submitted by the coordinator, on behalf of a consortium including as beneficiaries, at least three legal entities, independent from each other and each established in a different country as follows:

- at least one legal entity established in a Member State; and
- at least two other independent legal entities, each established in different Member States or Associated Countries.

The legal entities may for example be universities, research organisations, SMEs, start-ups, industrial partners or natural persons. The eligibility of associated countries and third countries is detailed in Annex 2.

The standard admissibility and eligibility conditions are detailed in Annex 2. The scope of proposals should be in line with the Do Not Significant Harm principle (see Annex 2). Research proposals within the scope of Annex I to the Euratom Treaty, namely those directed towards nuclear energy applications, must be submitted to relevant calls under the Euratom Research and Training Programme.

What support will you receive if your proposal is funded?

The total indicative budget for this call is EUR 179.5 million.

You will receive a grant for a Research and Innovation Action to cover the eligible costs, necessary for the implementation of your project. For this call, the EIC considers proposals with a requested EU contribution of up to EUR 3 million as appropriate. Nonetheless, this does not preclude you to request larger amounts, if duly justified. The funding rate of this grant will be 100% of the eligible costs.

In addition to funding, successful applicants will receive tailor-made access to a wide range of Business Acceleration Services (see Section V) and interactions with EIC Programme Managers (see Section I).

Projects funded through EIC Pathfinder (including grants resulting from certain EIC pilot Pathfinder, FET-Open and Proactive calls)[24] may be eligible:

[24] The eligible calls are all EIC Pathfinder calls under Horizon Europe and the following Horizon 2020 calls: FETOPEN-RIA-2014-2015; FETOPEN-01-2016-2017; FETOPEN-01-2018-2019-2020; H2020-FETPROACT-2014; FETPROACT-01-2016; FETPROACT-01-2018; FETPROACT-EIC-05-2019; FETPROACT-EIC-07-2020; FETPROACT-EIC-08-2020.

- to receive EIC Booster grants of up to EUR 50 000 to undertake complementary activities to explore potential pathways to commercialisation or for portfolio activities (see Annex 5);
- to submit an EIC Transition proposal (see section III for more information about the eligibility conditions);
- to submit an EIC Accelerator proposal via the Fast Track scheme (see Annex 3);
- to participate in the 'Next Generation Innovation Talents' scheme (see section VII). The personnel costs of researchers participating in this scheme are eligible under your Pathfinder grants.

The Model Grant Agreement can be found on the Funding and Tender Opportunities Portal.

How do you apply; how long does it take?

The deadline for submitting your proposal is 7 March 2023 at 17h00 Brussels local time.[25]

You must submit your proposal via the Funding and Tender Opportunities Portal before the given deadline.

Sections 1 to 3 of the part B of your proposal, corresponding respectively to the award criteria Excellence, Impact, and Quality and Efficiency of the Implementation, must consist of a maximum of 17 format A4 pages.

You will be informed about the outcome of the evaluation within 5 months from the call deadline (indicative), and, if your proposal is selected for funding, you can expect your grant agreement to be signed by 8 months after the call deadline (indicative).

How does the EIC decide if your proposal will be funded?

Your proposal will be first evaluated and scored remotely by at least four EIC expert evaluators with respect to the award criteria. The remote score for each award criterion will be the median of the evaluators' scores. The overall remote score will be the weighted sum of the three median scores from the three award criteria.

A rebuttal procedure after the remote phase will provide you with the opportunity to reply with a strict page limit (maximum two A4 pages) to the evaluators' comments, which you will receive approximately 1.5-2.5 months after the call deadline via the Funding and Tender Opportunities Portal. The deadline for sending your replies will be

[25] The call will open on 10 January 2023. The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening. The Director-General responsible may delay the deadline(s) by up to two months.

eight calendar days (at 17h00 Brussels local time) after you have received the evaluators' comments. Your replies cannot be used to alter or add to the content of the proposals, but must strictly focus on responding to potential misunderstandings or errors by the evaluators. Your replies will be made available to the evaluation committee.

The evaluation committee, which will be composed of EIC expert evaluators different than those who evaluated the proposals remotely, will decide on the final score on the basis of the remote score and the outcome of its consensus discussions, taking into consideration the comments from the rebuttal procedure, if any. These discussions will focus on proposals with diverging evaluators' opinions that have a realistic chance of getting funded (i.e. proposals from an appropriately chosen range above and below the funding threshold). The evaluation committee may invite expert evaluators who evaluated and scored the proposals remotely to the consensus discussions, in particular for proposals with diverging evaluators' opinions.

The Evaluation Summary Report will comprise the final score, a comment that summarises the assessment by the evaluation committee as well as any additional comments, possibly including advice not to resubmit the proposal. It will also specify if and how the evaluation committee took into account your reply received via the rebuttal.

Proposals will be assessed according to the following award criteria (Table 2):

Table 2. Award criteria for EIC Pathfinder Open
Excellence (Threshold: 4/5, weight 60%)
Long-term vision: How convincing is the vision of a radically new technology towards which the project would contribute in the long term?
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 is the high-risk/high-gain research approach appropriate for achieving them? How sound is the proposed methodology, including the underlying concepts, models, assumptions, alternative directions and options, appropriate consideration of the gender dimension in research content, and the quality of open science practices?

Interdisciplinarity: How relevant is the interdisciplinary approach from traditionally distant disciplines for achieving the proposed breakthrough?
Impact (Threshold: 3.5/5, weight 20%)
Long-term impact: How significant are the potential transformative positive effects that the envisioned new technology would have to our economy, environment and society?
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? How suitable are the proposed measures for involving and empowering key actors that have the potential to take the lead in translating research into innovations in the future?
Communication and Dissemination: How suitable are the measures to maximise expected outcomes and impacts, including communication activities, for raising awareness about the project results' potential to establish new markets and/or address global challenges?
Quality and efficiency of the implementation (Threshold 3/5, weight 20%)
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 (comprising person-months and other cost items) to work packages and consortium members?
Quality of the consortium: To what extent do the consortium members have all the necessary high quality expertise for performing the project tasks?

For proposals with the same final score, priority will be based on the following factors, in order: higher score under the criterion Excellence; higher score under the criterion Impact; gender balance among the work package leaders as identified in the proposal; number of applicants that are SMEs; number of Member States and Associated Countries represented in the consortium; other factors related to the objectives of the call to be determined by the evaluation committee.

II.2 EIC Pathfinder Challenges

EIC Pathfinder Challenges aim to build on new, cutting-edge directions in science and technology to disrupt a field and a market or create new opportunities by realising innovative technological solutions grounded in high-risk/high-gain research and development.

With each specific Challenge, a portfolio of projects will be established that explore different perspectives, competing approaches or complementary aspects of the Challenge. The complexity and high-risk nature of this research will require multi-disciplinary collaborations.

A dedicated Programme Manager, who establishes a common roadmap and proactively steers the portfolio towards the goals of each Challenge, oversees a specific EIC Pathfinder Challenge. Projects in a Challenge portfolio are expected to interact and exchange, remaining flexible and reactive in the light of developments within the portfolio or in the relevant global scientific or industrial community. They will progress together towards common goals and create new opportunities for radical innovation.

This section refers to common criteria for all EIC Pathfinder Challenges. Please refer to the description below of each Challenge for specific information and requirements.

Why should you apply?

You should apply if you have a potential cutting-edge project that would contribute to the specific objectives of the respective Challenge. Specifically, your project must aim to deliver by its end the expected outcomes defined in the respective Challenge. Project results should also include top-level scientific publications as well as an adequate formal protection of the generated intellectual property (IP).

In addition, you are encouraged to involve and empower in your team key actors that have the potential to become future leaders in their fields such as excellent early-career researchers or promising high-tech SMEs, including start-ups. Your project should reinforce their mind-set for targeted research and development aimed at high-impact applied results. This will strengthen Europe's capacity for exploiting the scientific discoveries made in Europe throughout the steps to market success or for solving global challenges. You are particularly encouraged to empower female researchers in your project and to achieve gender balance among your work package leaders.

Before you decide to apply, you are strongly encouraged to read the respective EIC Pathfinder Challenge Guide that will be published on the EIC website and the Funding and Tender Opportunities Portal after the call opening. The Challenge Guides will

provide you with more information about the objectives of the Challenges, technical information underpinning the objectives and portfolio considerations used for the final selection of proposals to be funded.

Can you apply?

In order to apply, your proposal must meet the general eligibility requirements (see Annex 2) as well as specific eligibility requirements for the Challenge (if applicable). Please check for particular elements (e.g. specific application focus or technology) in the respective Challenge chapter below.

The EIC Pathfinder Challenges support collaborative or individual research and innovation from consortia or from single legal entities established in a Member State or an Associated Country (unless stated otherwise in the specific Challenge chapter). In case of a consortium your proposal must be submitted by the coordinator on behalf of the consortium. Consortia of two entities must be comprised of independent legal entities from two different Member States or Associated Countries. Consortia of three or more entities must include as beneficiaries at least three legal entities, independent from each other and each established in a different country as follows:

- at least one legal entity established in a Member State; and
- at least two other independent legal entities, each established in different Member States or Associated Countries.

The legal entities may for example be universities, research organisations, SMEs, start-ups, natural persons. In the case of single beneficiary projects, mid-caps and larger companies will not be permitted.

The standard admissibility and eligibility conditions and the eligibility of applicants from third countries are detailed in Annex 2.

The scope of proposals should be in line with the Do Not Significant Harm principle (see Annex 2).

What support will you receive if your proposal is funded?

The total indicative budget for this call is EUR 163.5 million which is expected to be allocated in approximately equal shares across the Challenges.

You will receive a grant for a Research and Innovation Action to cover the eligible costs, necessary for the implementation of your project, including the portfolio activities. For this call, the EIC considers proposals with an EU contribution of up to EUR 4 million as appropriate. Nonetheless, this does not preclude you to request larger amounts, if duly

justified or stated otherwise in the specific Challenge. The funding rate of this grant will be 100% of the eligible costs.

In addition to funding, successful applicants will receive tailor-made access to a wide range of Business Acceleration Services (see Section V) and interactions with EIC Programme Managers and other actions in the portfolio of projects selected (see Section I).

Projects funded through EIC Pathfinder (including grants resulting from certain EIC pilot Pathfinder, FET-Open and Proactive calls)[26] may be eligible:

- to receive EIC Booster grants of up to EUR 50 000 to undertake complementary activities to explore potential pathways to commercialisation or for portfolio activities (see Annex 5);
- to submit an EIC Transition proposal (see section III for more information about the eligibility conditions);
- to submit an EIC Accelerator proposal via the Fast Track scheme (see Annex 3);
- to participate in the 'Next Generation Innovation Talents' scheme (see section VII). The personnel costs of researchers participating in this scheme are eligible under your Pathfinder grants.

The Model Grant Agreement can be found on the Funding and Tender Opportunities Portal.

How do you apply; how long does it take?

The call deadline for submitting your proposal is 18 October 2023 at 17h00 Brussels local time.[27]

You must submit your proposal via the Funding and Tender Opportunities Portal.

Sections 1 to 3 of the part B of your proposal, corresponding respectively to the award criteria Excellence, Impact, and Quality and Efficiency of the Implementation, must consist of a maximum of 25 format A4 pages.

You will be informed about the outcome of the evaluation by 5 months after call deadline (indicative), and, if your proposal is accepted for funding, you can expect your grant agreement to be signed by 8 months after the call deadline (indicative).

[26] The eligible calls are all EIC Pathfinder calls under Horizon Europe and the following Horizon 2020 calls: FETOPEN-RIA-2014-2015; FETOPEN-01-2016-2017; FETOPEN-01-2018-2019-2020; H2020-FETPROACT-2014; FETPROACT-01-2016; FETPROACT-01-2018; FETPROACT-EIC-05-2019; FETPROACT-EIC-07-2020; FETPROACT-EIC-08-2020.

[27] The call will open on 20 June 2023. The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening. The Director-General responsible may delay the deadline(s) by up to two months.

How does the EIC decide if your proposal will be funded?

After the submission of your proposal it will be evaluated in two steps:

1. a remote evaluation by EIC expert evaluators will assess each proposal separately against the award criteria; this step includes a rebuttal procedure.
2. 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 (so called portfolio considerations). The evaluation committee will be composed of EIC expert evaluators and EIC Programme Managers.

Step1 (assessment of each proposal separately):

Your proposal will be first evaluated and scored remotely by at least three EIC expert evaluators with respect to the award criteria. The remote score for each award criterion will be the median of the evaluators' scores. The overall remote score will be the weighted sum of the three median scores from the three award criteria.

A rebuttal procedure after the remote phase will provide you with the opportunity to reply with a strict page limit (maximum two format A4 pages) to the evaluators' comments, which you will receive about 1.5-2.5 months after the call deadline via the Funding and Tender Opportunities Portal. The deadline for sending your replies will be eight calendar days (at 17h00 Brussels local time) after you have received the evaluators' comments. Your replies cannot be used to alter or add to the content of the proposals, but must strictly focus on responding to potential misunderstandings or errors by the evaluators. Your replies will be made available to the evaluation committee.

The evaluation committee, which will be composed of EIC expert evaluators and EIC Programme Managers, will decide on the final score on the basis of the remote score and the outcome of its consensus discussions, taking into consideration the comments from the rebuttal procedure, if any.

For step 1, proposals will be assessed according to the following award criteria (Table 3).

Table 3. Award criteria for EIC Pathfinder Challenges
Excellence (Threshold: 4/5; weight 60%)
Objectives and relevance to the Challenge: How clear are the project's objectives? How relevant are they in contributing to the overall goal and the specific objectives of the Challenge?
Novelty: To what extent is the proposed work ambitious and goes beyond the state-of-the-art?
Plausibility of the methodology: How sound is the proposed methodology, including the underlying concepts, models, assumptions, appropriate consideration of the gender dimension in research content, and the quality of open science practices?
Impact (Threshold: 3.5/5; weight 20%)
Potential Impact: How credible are the pathways to achieve the expected outcomes and impacts of the Challenge? To what extent would the successful completion of the project contribute to this?
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 positive societal, economic or environmental impact? How suitable are the proposed measures for involving and empowering key actors that have the potential to take the lead in translating research into innovations in the future?
Communication and Dissemination: How suitable are the proposed measures, including communication activities, to maximise expected outcomes and impacts for raising awareness about the project results' potential to establish new markets and/or address global challenges?
Quality and efficiency of the implementation (Threshold 3/5; weight 20%)
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 (comprising person-months and other cost items) to work packages and consortium members?
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?

All proposals that meet the thresholds defined in the award criteria will be considered in step 2.

Step 2 (portfolio considerations):

In step 2, the evaluation committee will consider each proposal's contribution to setting up of a consistent Challenge Portfolio of projects.

First, the evaluation committee will map the proposals in a number of categories stemming from the overall goal and specific objectives of the Challenge. Examples of possible categories are: building blocks or subsystems, technical areas and/or competing technologies, platforms, applications areas, risk level and stage of technology readiness level, size, etc.

Following this mapping of proposals against categories, a suitable portfolio of proposals will be selected by the evaluation committee by applying portfolio considerations in order to propose for funding a coherent set of projects to achieve the expected outcomes and impacts of the Challenge. In all cases the overall balance and composition of the portfolio will be taken into consideration in order to maximise the overall impact of the portfolio on the expected outcomes and impacts of the Challenge.

Further information and details about the categories and the portfolio considerations will be provided in EIC Pathfinder Challenge Guides, which will be topic and domain specific.

The evaluation committee may also propose some minor adjustments to the proposals as far as needed for the consistency of the portfolio approach. These adjustments will be in conformity with the conditions for participation and comply with the principle of equal treatment.

You will receive feedback in the Evaluation Summary Report which will comprise the final score and a comment that summarises the assessment by the evaluation committee as well as any additional comments. It will also specify if and how the evaluation committee took into account your reply received via the rebuttal. If your proposal was not retained for funding while it received a score that was higher than other proposals retained for funding under the same Challenge, then you will also be informed about the underlying portfolio considerations.

What happens after a proposal is evaluated and retained for funding?

The coordinator of the proposal will receive a letter announcing the proposal has been retained for funding and the next steps regarding grant agreement signature. Grant

agreement preparation and signature is expected to be finished within three months but shorter timelines may be specified.

The Project Officer and relevant EIC Programme Manager will contact and support you during the grant agreement preparation to plan the portfolio activities for which you will be expected to collaborate with the other projects in the Challenge Portfolio and to start the preparation of the Challenge roadmap which will define the collective deliverables, activities and objectives of the portfolio of projects selected.

During the execution of the project you will interact continuously with the Project Officer assigned to your project and the EIC Programme Manager, assigned to the Challenge Portfolio of your project, who will oversee all the portfolio projects.

II.2.1 EIC Pathfinder Challenge: Clean and efficient cooling

Background and scope

Cooling is an essential process across many areas of society, important for human well-being, economic growth, sustainable urbanisation, reduction of food scarcity, and for socio-economic development. It presents relevant applications in sectors such as (i) built environment, heat, ventilation and air conditioning (HVAC), building health and comfort, interoperable urban energy systems, (ii) data centres, electronics and superconductors, (iii) food production (i.e. vertical farming), processing, storage and refrigerated transport, (iv) cold energy carriers production, transport and network integration (liquid H2, LNG, etc.), (v) chemical, metallurgical and hard to abate industries (including cryogenic carbon capture) and (vi) medical applications (e.g. vaccines that need refrigeration).

In terms of cooling technologies, vapour compression is the most widely applied method for air-conditioning and refrigeration. However, a wide range of alternative methods have been developed or are under active development including thermochemical (e.g. sorption) and solid-state (e.g. magnetic, electrochemical, thermo-acoustic, thermo-elastic) based cooling solutions. At the same time, the need for mechanical cooling can be mitigated by using nature-based solutions (such as trees and plants), passive cooling techniques (such as natural ventilation, shades, thermal insulation, radiative cooling etc.), the use of natural energy (e.g. winter cold for summer use, or solar cooling) and behavioural changes or other demand-based technologies.

The demand for cooling is rising and cooling processes often result in significant greenhouse gas (GHG) emissions, due to the use of hydrofluorocarbons (HFCs) or fossil fuel to power cooling equipment. At the same time, the global energy market

disruption and increasing costs of energy supply are threating the competitiveness of several high cooling demand sectors, so that the availability of super-efficient and low-cost cold technologies is crucial. These needs call for novel solutions as they cannot be addressed by simply adapting conventional cooling processes and solutions, nor relying on existing supply chains for components and devices. The alternative cooling technologies under development are either for small scale (e.g. solid-state refrigeration) or for a limited temperature range (e.g. sorption based refrigeration).

This Challenge is strategic for the European Green Deal[28] and the REPowerEU[29] plan, Renewable Energy Directive (RED II), and Energy Efficiency Directive (EED) EU policy objectives, transforming the EU into a resource-efficient and competitive economy, increasing Europe's autonomy on energy and critical materials, preserving Europe's natural environment, tackling climate change and adaptation to it, food security and health protection, and strengthening the EU technological leadership in this strategic sector.

Overall goal and specific objectives

This EIC Pathfinder Challenge aims at advancing scientific knowledge and technological development of novel, clean and efficient cooling solutions that fully underpin "cold economy" vision.

For this purpose, the portfolio of projects supported under this Challenge should explore the potentials of new devices, processes, components and materials for clean cooling generation, storage and/or transport, such as:

- Generation of clean cooling which may integrate the use of renewable energy, waste heat/ cold harvesting, passive and radiative cooling, thermochemical and hybrid heat pumps, heat transformers, waste heat recovery, heat pipes); solutions for a wide range of applications ranging from vaccine storage temperature (-80 to 4°C), food (-40 to 12°C), data centres and air-conditioning (6 – 12°C) are eligible;
- Store and/or transport of cooling (spatially and/or temporally decoupling demand and generation), clean cold chain transportation, thermal energy carriers, inter-seasonal storage, including charging/discharging dynamics where relevant (i.e. short charging times and mid to long duration storage).
- Utilization and/or management of cooling, such as cascade use of cold energy for different temperature requirements, integration of innovative and low/ net zero cooling concepts in critical demand segments (i.e. data-centre, hard-to-abate

[28] A European Green Deal | European Commission (europa.eu)
[29] REPowerEU: affordable, secure and sustainable energy for Europe | European Commission (europa.eu)

industrial sectors, buildings, specific solutions for food processing or medical applications) or other demand side related technologies).

Specific objectives of the Challenge are to explore new devices, processes, components and materials for cooling. Technologies to be integrated in products and services shall demonstrate their potential to (i) reduce investment/operational costs, (ii) increase efficiency, operational reliability and interoperability, (iii) avoid the use of critical raw materials[30] or harmful refrigerants and (iv) pursue circularity by design approaches, low environmental impact and low carbon footprint.

The proposals should refer the expected COP (coefficient of performance) to the max theoretical COP of the inverse Carnot cycle and describe how the proposed solution can be competitive with the state of art at the proposed operating range. The proposed solutions should aim to achieve single stage temperature gradients higher than 5 °C at a competitive COP.

The proposals submitted in response to this Challenge may address fields such as:

- unconventional refrigeration technologies and systems including but not limited to functionalised Phase Change Materials (PCM), thermochemical materials, thermophotonic, elastomeric, barocaloric, magnetocaloric or thermally regenerative electrochemical cycles; new compression-expander mechanisms (i.e. electrochemical compression), use of mixed refrigerants or other novel cycles configurations;
- computational modelling and validation of energy-intensive low-temperature heat transfer processes, materials and components including their design, manufacturing, optimisation and dynamic performance (i.e. novel heat exchangers, compressors etc.);
- ultra-energy efficient operations and logistics along the cooling supply chain and final use, decoupling supply and demand via thermal carriers (PCMs, thermochemical materials, ice slurries, liquid air, molecular storage etc.) or systems integration, including mobile cold energy storage and associated charging solutions; interoperability of district networks, reversible heating and cooling infrastructures, or cold-to-power solutions;
- new designs and concepts for food processing and medical applications; unconventional refrigeration principles (such as thermoelectric, magnetocaloric, electrocaloric, elastomeric or barocaloric, photonic cooling conversion) or new compression-expander mechanisms (scroll, electrochemical compression), mixed refrigerants, novel cycles configurations.

[30] Critical raw materials (europa.eu)

The proposals may include smart interoperability solutions for electricity, heating and cooling networks integration, including reversible heating and cooling infrastructures, or cold-to-power solutions with waste heat and cold energy streams recovery from industrial processes, data centres and/or air conditioning of buildings.

Expected outcomes and impacts

The supported projects shall individually provide proof of concepts for unconventional approaches (at materials, component, process or device level) that can convincingly impact the energy consumption, emission reduction and cost reduction of the cooling sector. The portfolio of supported projects should contribute to one or more of the following medium to long-term impacts:

- Increase the EU technological leadership in the cooling sector and in strategic productive fields strongly linked to cold production (such as food),
- Improve building comfort and health in living environment,
- Increase operational security of server and computing facilities,
- Reduce carbon footprint of energy systems and address climate change mitigation,
- Address climate change adaptation (in particular in semi-desert areas) and food security, including possibilities of international outreach,
- Reduce EU dependency from, and diversify EU sourcing of, critical materials supply.

II.2.2 EIC Pathfinder Challenge: Architecture, Engineering and Construction digitalisation for a novel triad of design, fabrication, and materials

Background and scope

Life cycle greenhouse gas (GHG) emissions of buildings show a clear reduction trend due to improved operational energy performance. However, Life Cycle Assessment (LCA) analyses also reveal an increase in relative and absolute contributions of GHG emissions embodied in new buildings. Such embodied GHG emissions are caused during all stages leading up to final construction of the building, including in the choice of materials and their subsequent fabrication. Achieving net GHG emission reductions by at least 55% by 2030,[31] and net zero by 2050, will require changes in our built environment and, with that, changes in the Architecture, Engineering and Construction (AEC) value chains.

Moreover, with 70% of the world population projected to live in urban areas by 2050, it is also essential that the construction industry can avail of innovations that will positively impact the quality of life and the human experience in cities and buildings from environmental to social, cultural, and aesthetic points of view.

Decisions taken today by professionals and firms in the AEC sector impact the lives of generations far into distant futures. Initiatives such as the European Green Deal[32] or the New European Bauhaus[33] can offer context and targets in this domain to steer us towards better built environments.

These transformations can gradually interweave numerous scientific and technologic innovations into an interdisciplinary fabric that is interconnected by a common thread of digitalisation.

New digital technologies advance the state-of-the-art in areas such computational design, algorithmic design, physics simulation, agent-based modelling, topology optimisation, or parametric design. They can open whole new disruptive pathways of design, with higher degrees of system integration, optimisation, and complexity, if they are coupled with the parallel development of advanced digital fabrication and workflow technologies. Moreover, such digital fabrication technologies can in turn materialise such ever more complex designs, using or reusing known materials, and expectedly introducing more advanced innovative and engineered materials, including new classes of "meta-materials".

[31] Fit for 55 - The EU's plan for a green transition - Consilium (europa.eu)
[32] A European Green Deal | European Commission (europa.eu)
[33] New European Bauhaus: beautiful, sustainable, together (europa.eu)

This Challenge seeks to develop research and early innovations with a breakthrough potential related to design, fabrication and materials for the AEC value chain enabled by novel algorithms and advanced digitalization. In such a digitalized AEC value chain design, fabrication and materials are symbiotic and mutually dependent and enabling.

This combination can enable designers, architects, engineers, and fabricators to imagine, design, optimise and create complex and efficient structures within a digitalisation pathway, in response to ever more ambitious requirements for climate neutral, sustainable, inclusive, aesthetic, and inspiring buildings.

Overall goal and specific objectives

The potential of the digitalised, mutually interdependent, mutually reinforcing, intertwined triad of design, fabrication and materials can potentially exceed our wildest imaginations. This Challenge seeks the realisation of disruptive solutions for AEC in one or more of the following areas:

- Computational design solutions that advance the state of the art of algorithmically generated design, topology optimisation, agent-based modelling, physical simulation, digital representations such as digital twins and nature inspired design. New algorithmic design solutions may enable breakthroughs in functional integration of complex systems. These solutions may also blur boundaries of nano-scale, micro-scale, meso-scale, and macro-scale, and allow for new developments in meta-materials or bio-mimicry in terms of building structures and patterns.
- Digital fabrication solutions synchronous with a vast potential of the nearly unlimited complexity of computational design. Digital fabrication can relate to all digitally enabled manufacturing technologies, in particular to novel concepts for additive manufacturing such as new 3D printing techniques to realise the highly complex design definitions at voxel level with ever-higher resolution. Beyond advancing and further building on the known practices of layered extrusion and binder jetting, processes such as rapid liquid printing in a carrier suspension can be a promising new pathway for digital fabrication for the AEC. In addition, quality assurance (QA) and quality control (QC) may be enabled by new scanning technologies such as Computed Tomography (CT/ µCT) to detect defects and build a digital “as built” model, albeit at the dimensional scale and fabrication context AEC needs.
- Alternative materials as a field where the mix with digital design and digital fabrication technologies can be demonstrated by the AEC sector to vastly reduce the use of cement and its CO2 emissions in the transition to net zero. With a

deeper adoption of digitalisation in design and fabrication on the potential of adopting alternative materials widens. Digital design and digital fabrication can enable a widespread adoption of bio-based materials, as for example all known and new timber derivatives, fungal architecture, bamboo, hemp, and others, natural materials such as earth, clay, stone as well as recycled and waste-based materials currently considered as inferior. By a similar token, new pathways for engineered materials can also emerge here, as for instance applications of composites and algorithmically generated "meta-materials". The adoption of such materials allows the AEC sector to reduce or even remove carbon permanently from the atmosphere and economic cycle.

Projects are expected to target organisations and collaborative endeavours that develop ways to incorporate the digitalised triad of design, fabrication and materials in the reduction of embodied CO2 emissions, following principles aligned with key EU initiatives such as the European Green Deal or the New European Bauhaus. In this instance, ideas that are primarily centred on operational carbon emissions and/or operational energy efficiency are not in scope of this Challenge. However, it is important to highlight that innovations envisioning reductions of embodied CO2 emissions shall be at least as effective in reducing operational carbon emissions as the technologies they substitute by the time of market adoption. Also, projects should consider for the future commercial adoption, the issues of compliance with relevant standards of building operational performance.

Expected outcomes and impacts

Projects must clearly achieve a proof of principle and validate the scientific basis of the breakthrough technology. The development and expression of techno-economic views on geometric and economic scalability of the technology itself, coupled with an entrepreneurial path towards commercialisation and future adoption by the AEC value chain are strongly encouraged.

Proposals are expected to demonstrate interdisciplinary and collaborative processes to create critical interactions between disciplines, economic sectors, and other partners with relevant skills as appropriate. The overall goal is to support the formation of new partnerships with innovative approaches and unique solutions that foster new R&I communities and ecosystems to nurture long term changes in the AEC sector.

Expected adjacent impacts of this AEC Pathfinder Challenge are also to inspire an ambition for the AEC sector to create higher quality jobs in a more progressive and appealing business culture that is ready to deliver a transformation of the built environment in line with the European Green Deal and the New European Bauhaus.

II.2.3 EIC Pathfinder Challenge: Precision nutrition

Background and scope

Dietary guidelines provide recommendations on foods, food groups and dietary patterns to achieve reference intakes of nutrients, prevent chronic diseases and maintain overall health in the general population. However, dietary recommendations are not sufficiently stratified across different categories such as age, gender, ethnicity, genetic predisposition to certain Food-related Health Conditions (FrHCs) such as but not limited to obesity and malnutrition) and Noncommunicable Chronic Diseases (NCDs) such as but not limited to diabetes and hypertension.

The role of diet in human health is increasingly being researched as a factor that could contribute to human health. The human diet can have a pro-inflammatory effect and can influence the immune system by different mechanisms including altering the glycome in a way to produce more pro-inflammatory antibodies. In addition, depending on the genetic predisposition of an individual, diet can play a role in the development of various FrHCs and NCDs. Also, diet has been shown to be associated with the dense and complex population of microorganisms that colonise the human gastrointestinal tract. Yet, despite current knowledge about the glycome, the susceptibility to different dietary regimes for FrHCs and NCDs requires additional interdisciplinary research, while nutrition, human gut microbiome and glycome research are still mostly compartmentalised.

Common dietary patterns, characterised by high sugar and red meat consumption, as well as overly processed food with a lot of additives, have been investigated as influential factors on human health, including through an increased risk of developing FrHCs and NCDs. The need to ensure the long-term sustainability of current food production amid concerns for global food security, reinforces the idea that additional food sources should be considered and human diet recommendations revised and adjusted to specific needs. A diet based on more plant-based food is certainly a very promising option which provides dietary fibres and a large array of phytochemicals.

This Challenge will only fund multi-disciplinary research proposals that include at least nutritional, microbiome and glycan research aspects. The research focus can be on one or more of the Challenge specific objectives. Proposals are expected to investigate the interactions among nutrition, human gut microbiome and glycans beyond the state-of-the-art, to better clarify the role of diet into human health, including for example the interactions of whole plant foods, highly processed food and fermented foods with the human gut microbiome and glycans.

Since the response of the human gut microbiota to diet is highly individual, we encourage the integration of observational studies, randomised controlled trials, and mechanistic studies in animal models with a machine learning approach that can be applied to a large number of participants and large data sets from already available studies.

Proposals are expected to consider regulatory aspects and to build on the work carried out so far by the European Food and Safety Authority (EFSA).

Overall goal and specific objectives

The goal of this Challenge is to investigate and provide scientific evidence of the role of diet in FrHCs and NCDs.

The specific objectives of this Challenge are:

- Investigate causal relationships among diet, microbiome and glycans, with potential impact on personalising human diet.
- Identify food ingredients, food technology processes, additives and dietary patterns that have negative effects on human health and, aging.
- Identify food ingredients, food technology processes and additives that have a beneficial effect on human health, and aging.
- Develop recommendations for the reformulation of new food products and processes with no- or fewer additives.

Expected outcomes and impacts

Understanding and establishing relationships between diet and the pathology of Food-related Health Conditions and Noncommunicable Chronic Diseaseswould enable the prevention and alleviation of the consequences of FrHCs and NCDs on health and well-being through changes in diet. This is foreseen through the evidence-based upgrade of the current dietary guidelines. In the long run, it is expected that project results will be the basis for the development of novel foods and processes which might decrease the incidence of FrHCs and NCDs among the general population, and a better quality of life for the individuals affected by these conditions.

II.2.4 EIC Pathfinder Challenge: Responsible electronics

Background and scope

Responsible electronics represents a unique opportunity for the future of EU industrial autonomy in a decarbonised and digital society, however fundamental scientific and

technological challenges remain to be addressed. It has been predicted that by 2050, the production of electronics components and devices will rise exponentially and thus the use of raw materials in the sector will increase accordingly. As a result, the amount of electronic waste is also set to rise massively.

Responsible electronics can contribute to drastically reducing the environmental load of the electronic industry by shifting from traditional manufacturing industrial methods to innovative methods and materials with a lower environmental impact. This is in line with the EU Circular Economy Action Plan[34] fostering research towards a circular economy with effective waste and carbon recycling strategies as well as complementary with the objectives of the European Chips Act.[35]

Besides reducing the environmental impact of the electronics sector, innovations such as sustainable manufacturing or bio-inspired electronic systems can help Europe overcome the current chips crisis by reducing the dependency on critical raw materials[36] and traditional high energy demanding semiconductor processes. Moreover, investing in responsible electronics would be beneficial for the entire semiconductor ecosystem in Europe and will uphold the EU technology sovereignty.

Overall goal and specific objectives

The overall goal of this Challenge is to create opportunities for discovery of new environmentally friendly electronic materials, thus reducing its environmental impact and the need for critical raw materials and hazardous chemicals.

The projects supported under this Challenge are expected to offer either materials with improved properties (such as flexibility, durability, end of life recyclability/reusability), materials processed with low energy consumption and low carbon footprint processing (such as printing instead of photolithography, avoiding use of fluorinated gases for patterning), or alternatives, including nano-sized ones, to replace common electronic materials such as silicon and silicon nitride.

The specific objectives of this Challenge are to support the scientific community in reaching breakthroughs in development/discovery of:

- Advanced electronic materials for unconventional devices:
  - small-molecule and polymeric organic materials,
  - solution-processable inorganic materials,

[34] Circular economy action plan (europa.eu)
[35] European Chips Act | Shaping Europe's digital future (europa.eu)
[36] Critical raw materials (europa.eu)

- hybrid organic-inorganic materials,
- polymer-matrix nano-composite materials,
- bio-based and nature-inspired materials
- for the manufacturing of n- and p-semiconductors, dielectrics, conductors, including transparent conductors, particularly those suitable to make functional inks, passivation/encapsulation/packaging materials, flexible/stretchable substrates, etc.

✦ Advanced processes:

- production methods based on solution processing such as blade coating, slot die coating, spray coating, screen printing, inkjet printing, offset, gravure and flexo-printing, or
- other techniques particularly suitable for sheet-to-sheet or roll-to-roll manufacturing.

✦ Unconventional applications including e-textile/e-skin:

- backplane and logic circuits,
- microprocessors (4-8 bits),
- sensors,
- displays,
- power supplies,
- wireless transmitters/receivers, etc.

particularly those suitable for Internet-of-Thing (IoT) applications, while applying the life-cycle thinking approach.

Expected outcomes and impacts

This Challenge is expected to contribute to the development of materials with new properties or replacing materials used in current electronic devices with materials, which:

✦ reduce dependency on critical raw materials,
✦ are sustainable: having a low environmental footprint and developed recurring to the life cycle thinking approach.

The overall outcome of this Challenge is to support the move from traditional materials and manufacturing processes to less environmental impactful ones. It is expected that the Challenge will lead to the development of lab-scale validated proof of concept

devices based on the developed innovative materials and manufacturing processes, which may represent a potential application of a more sustainable, trusted and secure electronics.

Specific conditions

Projects with multidisciplinary and cross-sectorial approaches, looking for inspiration, ideas and knowledge in a broad range of disciplines are particularly welcome.

The safe and sustainable use of non-critical raw materials or the full recycle/reuse of them is mandatory. All projects are expected to conduct a full life cycle analysis of the proposed solutions and they shall apply or identify a methodology to measure the environmental and/or carbon footprint of the proof of principle/s that will be developed during the project.

Applicants should ensure that the proposed method/technology/material/s is not harmful to the natural ecosystems. Packaging and durability should be taken into consideration.

II.2.5 EIC Pathfinder Challenge: In-space solar energy harvesting for innovative space applications

Background and scope

Thermonuclear reactions in the Sun are practically an unlimited source of energy, however only tiny fraction of it is so far being exploited. At the same time, increased satellite launches and advancements of Low Earth Orbit (LEO) mega constellations, emergence of in orbit satellite servicing (IOS), and active debris removal (ADR) services demonstrate the need for energy to fuel ever increasing spacecraft in-space mobility. Satellite owners are expected to launch in multiple orbits, service satellites, perform collision avoidance manoeuvres, and move their satellites or space tugs into the desired orbits (e.g., LEO, etc.). Therefore, future spacecraft will need innovative propulsion capabilities in order to achieve long-term reliable, affordable, and scalable solutions for in-space mobility.

The visionary idea to find a way to collect solar energy in space and transmit it, possibly via an appropriate grid of re-translators, to various in-space recipients to be utilised for various in-space applications and novel propulsion approaches will result in emerging breakthrough innovations for renewable and self-sustainable in-space mobility solutions and bring substantial benefits for the European satellite owners.

On the other hand, there is an exponential growth of activities in orbit that will require in-space mobility with game changing novel propulsion methods and energy to be utilised for this propulsion. In-space energy harvesting could offer continuously energy to spacecrafts in orbit for in-space mobility, provided that a proper propulsion system is developed. These could be green propulsion solutions, utilizing the transformed and transmitted energy for orbital manoeuvres. Game changing green propulsion solutions for increased payload capability without impacting launch costs and even reducing them is one of the challenges to be addressed.

In addition, the lack of atmosphere will make possible also the transmission of this green energy to the lunar surface for various in-space applications e.g. In Situ Resource Utilisation (ISRU).

Mastering all the necessary technologies for developing innovative in-space applications would support the EU strategic autonomy in the critical field of energy, green propulsion for in-space mobility, and in-space transportation.

Overall goal and specific objectives

The overall goal of this Challenge includes the development of technologies required for in-space energy harvesting and transmission, and of novel propulsion technologies that will use such harvested energy.

To achieve such a breakthrough, the scientific and technological challenges to be overcome are enormous, since there are many obstacles and bottlenecks requiring game-changing solutions. The proposals submitted to this Challenge should address at least one of the fields below. In particular, targeted research and development is necessary in order to come up with:

- Scalable solutions (e.g., solar energy harvesting antennas, on-board spacecraft photovoltaic cells) for in-orbit efficient solar energy collection and storage.
- Conversion of the harvested energy in a form, appropriate for transmission at long distances in empty space.
- Efficient wireless and secure power transmission of the transformed energy between in-space harvesting devices on spacecraft and re-translation stations or other final receivers. This may require a grid of re-transmitting stations, which not only amplify the wireless transmission, but also redirect the transmission as necessary.

Innovative green propulsion solutions for in-space mobility, resulting into low cost or eco-friendly innovative concepts.

Expected outcomes and impacts

This Challenge aims at developing and as such make related impacts in:

- Design and laboratory validation of concepts to develop technologies for energy harvesting in space e.g. in-space utilisation of this energy for transportation and other related research and innovation activities, in particular for cleaning space debris;
- Development and laboratory validation of breakthrough technologies for wireless power transmission of energy, e.g. through power grid, for energy beam pointing and control;
- Development of eco-friendly and innovative green propulsion solutions for in-space applications (e.g., spacecraft orbital corrections, in orbit satellite servicing, active debris removal, end-of-life services, etc.) addressing the barriers to the use of in-space solar energy for innovative propulsion.
- Use of innovative in-space robotic solutions for in-space manufacturing and assembly of space-based solar units.

The development of viable technologies in this area as a basis for space-based energy harvesting will significantly increase the EU strategic autonomy. The direct benefits will be potential fuel cost savings, in-space clean energy solutions and innovative in-space robotic and assembly solutions. Thus, encouraging in-space manufacturing and assembly with a wide range of applications (e.g. navigation, satcom, etc.) and are likely to result into spin-offs into terrestrial markets (e.g. robotics, electronics, etc.). Moreover, it will allow satellite owners to improve in-space mobility, extend the lifetime of their satellites, decommission their old satellites, and potentially generate fuel cost savings. Offering continuous energy and encouraging innovative green propulsion solutions for in-space applications contribute to European leadership in space clean energy, while increasing competitiveness and autonomy of EU space economy.

Specific conditions

The submitted proposals must follow interdisciplinary and cross-sectorial approaches, looking for inspiration, ideas, and knowledge in a broad range of disciplines. Space sustainability is of critical importance for Europe and therefore, submitted proposals should incorporate considerations for sustainable space debris management. The safe and sustainable use of non-critical raw materials is crucial, and the projects should include a full life cycle analysis of the proposed solutions and their impact on Europe's decarbonisation goals.

III. EIC Transition

Have you identified promising EU-funded project results that could be the basis for ground-breaking innovations and new businesses?

- Is this novel technology ready for the next steps towards its maturation and validation in some specific, high potential applications?
- Have you performed early exploration of potential markets for your innovation as well as potential competitors?
- Do you envisage building a motivated and entrepreneurial team to develop and drive the idea towards commercialisation?

If the answer to each and every of these questions is 'yes', then EIC Transition may be the right call for you.

Why should you apply?

EIC Transition funds innovation activities that go beyond the experimental proof of principle in laboratory. It supports both the maturation and validation of your novel technology from the lab to the relevant application environments (by making use of prototyping, formulation, models, user testing or other validation tests) as well as explorations and development of a sustainable business case and business model towards commercialisation.

Your proposed activities must include further technology development on the results achieved in a previous project and follow user-centric methodologies to increase chances of the innovation's future success in the market. EIC Transition projects should address, in a balanced way, both technology and market/business development, possibly including iterative learning processes based on early customer or user feedback. These activities should include, subject to the level of maturity of the technology, a suitable mix of technology development and validation activities to increase the maturity of the technology beyond proof of concept to viable demonstrators of the technology in the intended field of application (i.e., from TRL 4 up to Technology Readiness Level 5 to 6). The activities must in all cases address market readiness towards commercialisation and deployment (market research, value proposition, business case and business model, prospects for growth, intellectual property protection, competitor analysis etc.) and aspects of regulation, certification and standardisation (if relevant), aimed at getting both the technology and the business idea investment ready.

EIC Transition aims at maturing both your technology and business idea thus increasing its technology and market readiness. The expected outcomes of your EIC Transition project are a) a technology that is demonstrated to be effective for its intended application and b) a business model, its initial validation and a business plan for its development to market. It is also expected that the intellectual property generated by your EIC Transition project is formally protected in an adequate way (Annex 6).

EIC Transition can support several different pathways beyond fundamental research, from technology development and product design to business modelling and commercialisation strategy to reach the market. Some non-exhaustive illustrative examples could be the following pathways:

- A focused collaborative project to further develop strategic and high impact technologies towards specific applications while improving also the market readiness towards a promising market application. This pathway is likely to require a collaboration among several applicants ('multi-beneficiary' approach) including SMEs, research performers, technology transfer offices and potential users/customers;
- An individual SME (including start-ups, spin-offs) identifies a market opportunity to apply the results of an eligible project towards a specific market application. This pathway is likely to require, or lead to, a licensing arrangement with the SME and could also involve a collaboration between the result owner(s) of the eligible project and the interested SME;
- A team of entrepreneurial researchers within a research or technology organisation who want to turn selected project results into a viable product by looking for a suitable business model or creating a start-up or spin-off company, and which may involve collaboration with the host research or technology organisation, as well as their technology transfer offices. In some cases, the results may already be relatively close to market or ready for investment (e.g. often with higher TRLs) and would therefore normally not need significant further technological development and hence require lower amounts of funding.

Technology Transfer Offices are encouraged to actively participate in the EIC Transition project, as they play a key role in enabling and supporting researchers with the development and commercialisation of their results.

At the end of your EIC Transition project, you should be ready for the next stage, which can be to apply for EIC Accelerator (if you are a SME, including start-ups or spin-offs), and to seek other investors or sources of funding, to enter licensing or collaboration agreements with third parties, or other routes to market deployment. In case your

project is not led by an SME or commercial partner, the formation and spin out of a new company can be included as part of the activities. You will be expected to describe the intended pathway and route to market in your proposal and must include specific milestones together with concrete and verifiable KPIs during the implementation of your project to assess progress towards the market.

The EIC Transition project is expected to mature your innovation both in its TRL and market and business readiness since the beginning of the project and with both tracks going in parallel and interacting between them.

Applicants to EIC Transition can submit proposals through:

- EIC Transition Open which has no predefined thematic priorities and is open to proposals in any field of science, technology or application;[37]
- EIC Transition Challenges in predefined thematic areas of emerging and strategic technologies.

Can you apply?

Your proposal must build on results (at least experimental proof of concept TRL 3, ideally technology validated in the lab TRL 4) already achieved within an eligible project. EIC Transition is restricted to proposals based on results generated by the following eligible projects:

- EIC Pathfinder projects (including projects funded under EIC pilot Pathfinder, Horizon 2020 FET-Open, FET-Proactive) and FET Flagships calls (including ERANET calls under the FET Work Programme).[38]
- European Research Council Proof of Concept projects.
- European Defence Fund (EDF), including the Preparatory Action on Defence Research, research projects[39], but only for proposals which are exclusively focused on civil applications (including dual use)[40]

[37] In line with the Do Not Significant Harm principle, see Annex 2

[38] Eligible projects are those funded under the following calls: FETOPEN-RIA-2014-2015; FETOPEN-01-2016-2017; FETOPEN-01-2018-2019-2020;; FETPROACT-01-2016; FETPROACT-01-2018; FETPROACT-EIC-05-2019; FETPROACT-EIC-07-2020; FETHPC-01-2016, FETHPC-02-2017, FETHPC-01-2018, FETPROACT-EIC-08-2020; FETPROACT-09-2020; FETOPEN-03-2018-2019-2020; FETFLAG-03-2018; FETFLAG-05-2020 H2020-FETFLAG-2014 (for projects funded under the related Specific Grant Agreements); projects resulting from a joint transnational call (both with and without EU co-funding) under any of the QuantERA, FLAG-ERA and ChistERA ERANETs.

[39] For Work Programme 2023 only results stemming from Preparatory Action on Defence Research (PADR) successful projects will be eligible as running already for more than 12 months.

[40] Activities intended to be used in military application or aiming to serve military purposes cannot be funded. If the project involves dual-use items in the sense of Regulation 428/2009, or other items for which authorisation is required, compliance with the applicable regulatory framework (e.g. export/import licences) must be ensured.

- For Transition Challenges ONLY: all projects funded under Horizon 2020 or Horizon Europe.[41]

If you are applying on the basis of an eligible project for which the grant is still active, you may apply if the project has been active for at least 12 months (i.e., the start date of the grant is more than 12 months before the date of the selected EIC Transition call cut-off).

If you are applying on the basis of an eligible project which has already been completed, you may apply within 24 months of the completion of the project (i.e., the end date of the grant for the eligible project is less than 24 months from the date of the selected EIC Transition cut-off).

You do not need to be a participant, Principal Investigator or result owner of the previous projects; on the contrary, new participants including start-ups, SME or other innovation actors are welcome and encouraged to apply:

- If you were part of the eligible project whose results are further developed in the EIC Transition proposal, you need to confirm in your proposal that you are the Intellectual Property Rights (IPR) owner or holder, or have the necessary rights to commercialise the results of the project;
- If you were not part of the eligible project whose results are further developed in the EIC Transition proposal, you need to include in your proposal a commitment letter from the relevant owner(s) of the result(s), which confirms the commitment of the owner of the linked project research result to negotiate with you fair, reasonable and non-discriminatory access to such results, including IPR, for the purpose of future commercial exploitation.

You can apply for EIC Transition either as:

- A single legal entity established in a Member State or an Associated Country ('mono-beneficiary') if you are a start-up, SME or research performing organisation (university, research or technology organisation, including teams, individual Principal Investigators and inventors in such institutions who intend to form a spinout company).[42] Larger companies (i.e. which do not qualify as SMEs) are not eligible to apply as a single legal entity; or

[41] Applicants must prove the grant from which the result was generated was funded by Horizon 2020 or Horizon Europe by specifying the relevant grant number and acronym as indicated in the Funding and Tender Opportunities Portal.

[42] A spin off from a research performing organisation (university, research or technology organisation) having a legal (e.g. contractual cooperation not limited to the action, e.g. a collaboration agreement for research in a particular field) or capital (research performing organisation owning a controlling share in the capital of the spin off) can be considered as an affiliated entity according to Article 8 of the Grant Agreement.

- A small consortium of two independent legal entities from two different Member States or Associated Countries, or
- A consortium of minimum three and maximum five independent legal entities ('multi-beneficiary') following standard rules i.e. must include at least one legal entity established in a Member State and at least two other independent legal entities, each established in different Member States or Associated Countries (see Annex 2).[43]

Consortia may for example include start-ups, SMEs, research organisations, or larger companies, user/customer organisations or potential end users (e.g., hospitals, utilities, industry, regulatory and standardisation bodies).

The standard admissibility and eligibility conditions are detailed in Annex 2.

What support will you receive if your proposal is funded?

The total indicative budget for this call is EUR 128.36 million, of which EUR 40. 5 million for Transition Challenges will be funded through Next Generation EU as this call contributes to the objectives to rebuild a greener, more digital and more resilient Europe. EUR 67.86 million of the total indicative budget will be allocated to Transition Open and EUR 60.5 million to Transition Challenges (see Annex 1). In case there are insufficient successful applications for the Transition Challenges, then the remaining budget will be transferred to Transition Open.[44]

If successful, you will receive a grant for a Research and Innovation Action to cover the eligible costs, necessary for the implementation of your project. For this call, the EIC considers proposals with a requested EU contribution of more than EUR 0.5 million and less than EUR 2.5 million and duration between 1 and 3 years as appropriate. Nonetheless, in exceptional cases, this does not preclude you to request larger amounts, if very well motivated and duly explained. The funding rate of this grant will be 100% of the eligible costs.

The projects funded through EIC Transition are eligible:

- to receive EIC Booster grants of up to EUR 50 000 to undertake complementary activities to explore potential pathways to commercialisation or for portfolio activities Annex 5 to submit an EIC Accelerator proposal via the Fast Track scheme (see Annex 5).

[43] Consortia of more than 5 partners will be deemed ineligible.
[44] With the exception of the Next Generation EU component of the budget.

In addition to funding, projects will receive tailor-made access to a wide range of Business Acceleration Services and matchmaking events (see Section V).

The Model Grant Agreement can be found on the Funding and Tenders Opportunities portal.

How do you apply; how long does it take?

The cut-off dates[45] for 2023 are:

- 12 April 2023 at 17h00 Brussels local time
- 27 September 2023 at 17h00 Brussels local time

You must submit your proposal via the Funding and Tender Opportunities Portal before the given cut-off. Sections 1 to 3 and the cover page (that includes the information about the related project on which the current EIC Transition proposal is built on) of part B of your proposal must consist of a maximum of 20 format A4 pages.

Your proposal will be evaluated first by EIC expert evaluators. You will be informed about the result of this evaluation, including feedback on your proposal, indicatively within 9 weeks after the cut-off. If your proposal successfully passes this first evaluation phase (see details below), you will be invited for a face-to-face interview, which will be organised approximately 13 weeks after the cut-off. At the interview, you will be assessed by a panel of maximum 6 EIC Jury members. You will be informed about the result of the interview indicatively within 4 weeks from the start of the interviews.

If you are successful, you can expect your grant agreement to be signed within 6 months from the call deadline (indicative) and you are expected to start your project within 2 months after signing the grant agreement.

How does the EIC decide if your proposal will be funded?

In a first step, at least three EIC expert evaluators will evaluate and score your proposal against each award criterion (see below). The overall score for each evaluation criterion will be the average of the corresponding scores attributed by the individual evaluators. The total score of your proposal will be the sum of the overall scores from the three evaluation criteria.

Starting with the highest scoring proposal and in descending order, a pool of the best ranked proposals (highest scoring) requesting an aggregated financial support equal

[45] The call will open on 1 March 2022. The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening. The Director-General responsible may delay the deadline(s) by up to two months.

to approximately the double of the budget available,[46] will be invited to the next step. If in that pool:

- at least 30% of the applications are submitted by women-led SMEs or consortia (see definitions in the Glossary), only the applications of that pool will be invited to face-to-face interviews;
- less than 30% of the applications are submitted by women-led SMEs or consortia,[47] the pool will be expanded to subsequent best ranked applications (starting with the highest scoring in descending, sequential order and at least equal score under Excellence criterion) submitted by women-led SMEs or consortia until reaching, if possible, a composition of the pool of at least 30% of applications submitted by women-led SMEs or consortia. All such applicants invited to interview must have met all evaluation criteria thresholds from the remote evaluation (Table 4).

The second step is a face to face interview with an EIC jury. At the interview your proposal may be represented by a maximum of five persons.[48] Only individuals mentioned in the proposal and involved in the future project implementation can represent your proposal at the interview.

The jury will be composed of a maximum of six members, which may include an EIC Programme Manager with expertise in your area or managing one of the EIC Portfolios your project could be allocated to. During the interview you should convincingly pitch your proposal to the jury, who will ask you questions aimed at clarifying various aspects of your proposal in line with the award criteria (in particular those regarding the quality of the team, the incipient business plan and business model, the milestones and KPIs). The jury will recommend your proposal for funding or not ('GO' or 'NO GO').

The budget will be allocated approximately equally between the cut-offs. In case the amount allocated to GO applicants is less than the budget available for that cut-off, or additional budget becomes available as a result of the award of the EIC grants, then the remaining available budget will be allocated to the subsequent cut-offs. In case the amount allocated to GO applicants is above the budget available, then a number of applications corresponding to the unavailable budget will be awarded funding using the available budget of the subsequent cut-off. This will be done within the limit of

[46] A higher number may be invited, for example if several applications receive the same score.
[47] The definition of women-led SMEs and consortia is provided in the Glossary in the Introduction.
[48] The number of participants to the interview must however be limited to the minimum necessary.

20% of the subsequent cut-off budget to ensure that the subsequent budget is not depleted excessively).[49]

Proposals will be assessed according to the following award criteria (Table 4). For the face to face interviews, the jury may ask questions concerning any of the award criteria.

Table 4. Award criteria for EIC Transition Open and Challenges at first evaluation step
Excellence (Threshold: 4/5)
Technological breakthrough: Does the technology have a high degree of novelty compared to other technologies available or in development? Does the technology indicate high potential business application?
Objectives: How credible and feasible are the objectives for the planned technology development? How credible and feasible are the objectives (and KPIs) for the planned business development process? Additional Consideration for EIC Transition Challenges ONLY: How relevant are the proposal objectives in contributing to the specific objectives of the Challenge?
Methodology: Is the timing right for this technology/innovation (i.e., feasibility, technological readiness, unique selling points)?[50]
Impact (Threshold: 4/5)
Credibility of the impacts: To what extent the expected impacts described are credible and realistic within the project and beyond? Additional Consideration for EIC Transition Challenges ONLY: To what extent the proposed application contributes to the expected outcomes and impacts, set out in the Challenge?
Economic and/or societal benefits: To what extent does the proposed innovation have scale up potential including high capacity to gain or create new European or global markets? To what extent is the proposed innovation expected to generate other positive impacts (strategic autonomy, employment, societal or environmental etc.)?

[49] Additional 20% budget may be made available. Changes within these limits will not be considered substantial within the meaning of Article 110(5) of Regulation (EU, Euratom) No 2018/1046

[50] The technology must be developed in a safe, secure and reliable manner. Proposals which involve the development, use or deployment of AI based systems/techniques must be technically robust (e.g. resilient to attack, secure and safe, having fallback plan, accurate, reliable and reproducible). To a degree matching the type of research being proposed (from basic to precompetitive) they must demonstrate that they comply with the Trustworthy Intelligence Principles (see Annex 2).

Investment readiness and go to market strategy: To what extent the proposal and its activities contribute to make the technology and the team investment ready (including through IP protection and market validation)? Is there a convincing go to market pathway/strategy, including what regulatory approvals may be needed (if relevant), time to market, possible business and revenue model?
Quality and efficiency of the implementation (Threshold 3/5)
Quality and motivation of the team: To what extent does the (project) team have the necessary high-quality capabilities and motivation to move decisively towards market. To what extent do the applicant(s) have the necessary expertise to create a unique commercial value from the emerging technology and develop an attractive business and investment proposition?
KPIs and Milestones: Are both milestones and KPIs present, relevant and clearly defined (measurable, timed, comparable etc.) to track progress along the pathway towards objectives? Have the main risks (e.g., technological, market, financial etc.) been identified, together with measures to mitigate in order to achieve the project objectives?
Workplan and allocation of resources: How appropriate and effective is the allocation of resources (person-months and equipment) in the workplan and work packages and project partners?

The following award criteria are applied coherently with the level of technological and business maturity expected from an EIC Transition proposal as described in this Work Programme.

Table 5. Award criteria for EIC Transition Open and Challenges at second evaluation step (Jury interview)
Excellence (GO/NO GO)
Technological breakthrough: Does the technology/innovation – through its degree of novelty/disruptiveness and/or added value/value proposition for the users/customers – have the potential to create important new markets or significant impact in existing ones?
Objectives: How credible and feasible are the objectives for the planned technology development? How credible and feasible are the objectives (and KPIs) for the planned business development process?

Additional Consideration for EIC Transition Challenges ONLY: How relevant are the proposal objectives in contributing to the specific objectives of the Challenge?
Methodology: Is the timing right for this technology/innovation (i.e., feasibility, technological readiness, unique selling points)?
Impact (GO/NO GO)
Credibility of the impacts: Is the incipient proposed business model sound? To what extent the expected impacts described are credible and realistic within the project and beyond? Additional Consideration for EIC Transition Challenges ONLY: To what extent the proposed application contributes to the expected outcomes and impacts set out in the Challenge?
Investment readiness and go to market strategy: How appropriate are the plans to ensure the subsequent financing of the technology/ innovation (applying for an EIC Accelerator, private investment, patenting/licensing, etc.)?
Quality and efficiency of the implementation (GO/NO GO)
Quality and motivation of the team: Does the team have the capability and motivation to implement the proposed technological innovation and market-related activities? Risk assessment: Have the risk that might prevent the validation of the innovation in relevant application environment and/or market success been appropriately considered?

You will receive as feedback of the evaluation an Evaluation Summary Report from the first evaluation step. If you have been invited for an interview, you will also receive feedback from the jury.

If you submit your proposal as an individual SME and it meets all evaluation criteria thresholds at the first step but is not selected for funding (including from a No-Go recommendation from the jury), it may be awarded a Seal of Excellence.

If your proposal is awarded a Seal of Excellence, you will also be asked to agree to share your relevant data with alternative funding bodies of your Member State or Associated Country, as a prior condition for such an award. Exceptionally, EIC juries may recommend that your proposal does not receive a Seal of Excellence if they find weaknesses in your proposal which were not identified by the expert evaluators. In such cases, you will receive feedback to justify this recommendation.

III.1 EIC Transition Open

This topic has no predefined thematic priorities and is open to proposals in any field of science, technology or field of application.

For any chosen field, EIC Transition projects should address, in a balanced way, both technology and market/business development, possibly including iterative learning processes based on early customer or user feedback. These activities should include, subject to the level of maturity of the technology, a suitable mix of technology development and validation activities to increase the maturity of the technology beyond proof of concept to viable demonstrators of the technology in the intended field of application (i.e. from Technology Readiness Level 4 up to 5 or 6). The activities must in all cases address market readiness towards commercialisation and deployment (market research, business case, prospects for growth, intellectual property protection, competitor analysis etc.) and other relevant aspects of regulation, certification and standardisation, aimed at getting both the technology and the business idea investment-ready.

The expected outcomes of your EIC Transition project are a) a technology that is demonstrated to be effective for its intended application and b) a business model, its initial validation and a business plan for its development to market.

III.2 EIC Transition Challenges

The total indicative budget for this call is EUR 60.5 million, of which EUR 40. 5 million will be funded through Next Generation EU, which will be allocated approximately equally between the three Challenges. However, if there is an insufficient number of applications selected for funding for a Challenge, the budget will be transferred to the other Challenges. In case there is an insufficient number of applications selected for all the Challenges, the remaining budget will be transferred to the Transition Open.[51]

III.2.1 EIC Transition Challenge: Full scale Micro-Nano-Bio devices for medical and medical research applications

Background and scope

Technologies at the intersection of micro-electronics, nanotechnology, bio-sensing, microfluidics and analytics have demonstrated a great potential where high-throughput, scalability, miniaturisation and automation are required for increasingly complex clinical and R&D tasks.

Previously completed projects funded by various EU programmes have succeeded in advancing the state-of-the-art of Micro-Nano-Bio systems to unprecedented technical attributes, often achieving experimental proof of concept with validation in the lab. Yet, transitioning these developments into market-ready full devices and systems, addressing high-impact user needs, with a cost-benefit balance and usability features aligned with market requirements, has proven challenging.

Opportunities for impact abound. In the research lab new tools are needed to better understand infection, age-related degeneration, to trigger and control tissue regeneration and cell reprogramming for repair, to uncover and harness complex metabolic processes, inflammation, and many others. Micro-Nano-Bio technologies will be instrumental in tackling the colossal challenge of uncovering yet unknown functions and inter-relations in the massive datasets offered by today's omics technologies. Further, general purpose enabling technologies such as on-demand benchtop DNA and protein synthesis/printing and programmable microfluidics are becoming a reality with Micro-Nano-Bio devices. In the clinic laboratory automation remains of fundamental importance, with a trend towards decreasing sample volumes, scaling up multiplexed architectures to realise comprehensive diagnostics panels, enabling benchtop and point-of-care use (e.g., in the practitioner's office or at home),

[51] With the exception of the Next Generation EU component of the budget.

accelerating patient stratification for personalised therapeutics compatible with time and cost limitations, and so on.

Workflows in therapy discovery must be further streamlined, with animal-free validation of effectiveness and toxicity, relying on *in-vitro* models of disease. These physiologically realistic constructs should be suitable for analysis over adequate time-spans, providing multi-modal observations and large data sets.

The scope of the Challenge is the maturation of Micro-Nano-Bio technologies developed in previous EU-funded projects to enable their transition to market, and the creation of the business plans to guide their next steps.

Overall goal and specific objectives

The overall goal of the Challenge is the completion of Micro-Nano-Bio technology suitable for transition to market.

The specific objectives of the Challenge are:

- To realise and validate a fully functional integrated Micro-Nano-Bio device or system hinging on Micro-Nano-Bio modules developed under previous EU-funded projects. Focus is on integration and/or refinement (e.g. further miniaturisation, production scaling etc.) of the existing modules to realise, within the limited time-span of the project, a transitionable investment-ready product.
- The development of devices or systems under this Challenge should lead to a high-impact technological development driven by market needs. Examples of these include:
  - the acceleration of the discovery of the principles underlying cell, or pathogen, biology by means of advanced milli/micro-fluidics (e.g., complex 3D flows, organ- or body-on-chip, nanopores/nanocavities), integrated bio-sensing (e.g., using MEMS/NEMS, photonics and imaging, surface functionalisation, arrays), novel biomaterials and chemistries and others.
  - the automation of clinical workflows, reducing sample volumes, offering unique data sets aiding in diagnostic, therapy optimisation and follow-up, miniaturising assays and displacing execution to point-of-care settings if advantageous, etc.
  - the streamlining of therapy discovery or production, while minimising animal testing. To this end proposers can rely on high-performance computing and advanced Artificial Intelligence (AI) / Machine Learning (ML), experiment parallelisation enabled by array microarchitectures, embedded closed-loop control for autonomous process optimisation and so on.

Sufficient data should be gathered, during the execution of the project, to demonstrate that cost, technical features, workflow, performance in relevant environment, etc. of the proposed solution are in line with the requirements of potential users and future purchasers.

By the end of the project a business plan and pitch deck suitable to approach private investors and industrial partners should be produced and backed by the fully functional device.

Expected outcomes and impacts

The expected outcome of this Challenge is the realisation of significant progress in Micro-Nano-Bio systems to a level of technological maturity suitable for exploitation.

The long-term expected impact includes positioning the European Micro-Nano-Bio ecosystems at the leading edge of product innovation, supporting global market leadership.

An exploitation strategy (including the formal IP protection) and a credible business model, its initial validation and a business plan are also expected outcomes of the project with the goal of attracting private investors and industrial partners.

Specific conditions

Ethics, safety and sustainability/circularity should be taken into account by design ('eco-design' of disposables). Gender-specificity should be addressed. Opportunities for policy development and standardisation should be identified throughout the project and pursued within the Challenge portfolio.

III.2.2 EIC Transition Challenge: Environmental intelligence

Background and scope

The increasing environmental pollution, both persistent and emerging, poses serious risks for the health of soil, hydrosphere, air, and human beings. Several methods have also been explored to remove pollutants in the environment, but they are much too complex, energy-consuming, or expensive. There is a constant need for innovative sensors, devices or technologies that can monitor and detect in an efficient and effective manner an ever increasing range of pollutants. To prevent and minimise these risks there is an urgent need on one hand to design and develop environmental intelligence, strategic measuring techniques with higher efficacy and detection precision including in remote areas such as oceans, and on the other hand technology to efficiently and effective remove contaminants from hydrosphere, air or soil.

The detection of key environmental parameters through biological, chemical, and physical sensors (including bio-inspired and/or nature-based) – eventually integrated into complex networks or technology platforms will allow gathering of wide range of data from diverse locations, distributed information (signal, image) processing as well as modelling with a goal of monitoring, early detection and warning.

In order to commercialise and deploy at scale next generation environmental solution there is also need for successful and sustainable business models which should also be part of the scope of any Transition proposal.

Overall goal and specific objectives

Proposals submitted to this Challenge should focus on demonstrating novel devices, sensors or technologies that have a clear and quantifiable advantage with respect to one or several of the key issues mentioned above compared with existing alternatives for similar class of problems or applications:

- Materials, processes, and systems – such as chemical, biological, and physical technologies-solutions, including bio-inspired and nature-based – aimed at detecting/monitoring, preventing, reducing, or eliminating environmental recalcitrant and/or emerging contaminants present in air, soil, or hydrosphere.
- Technologies that, without using critical raw materials[52] or ensuring their full reuse and/or recycling (sorting and refining), will enable the onset of synergies between sensors and artificial intelligence, at the interface of environment/sustainability and data science, so allowing the implementation of environmental monitoring and/or remediation actions.
- Solutions that detect, combine, analyse, and interpret data (environmental intelligence) including signals of ecosystem stress caused by a broad range of factors (i.e. water scarcity, habitat disruption, global warming, etc.), also coming from different sources – in situ (e.g., biological, chemical, or physical sensors) or remotely (e.g., satellite).
- Technologies with minimised carbon footprint, measured through a full life-cycle analysis, in order to ultimately protect/clean the environment from contaminations and to avoid the exposure of people to contaminants as well as to mitigate or reverse the effects of climate change.

The applicants should identify what are the limits of the current paradigms they are trying to improve and propose relevant metrics or KPIs to track progress and demonstrate success or a superior paradigm compared with current state of the art.

[52] https://ec.europa.eu/growth/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en

Expected outcomes and impacts

In the medium term, the expected outcome is the commercial emergence of new class of environmental technologies that radically improve or solve one or several of the issues mentioned (i.e., reduce complexity, energy consumption, using non-critical, non-toxic raw materials or ensuring their full recycle/reuse). A business model, its initial validation and a business plan are also expected outcomes of the project.

The expected outcomes and impacts of this Challenge are:

- Reduction of environmental pollution through technologies demonstrated by means of safe and sustainable pilot-scale prototypes able to perform environmental monitoring and/or remediation actions;
- Enabling an evidence-based environmental policy as well as improving and simplifying the environmental policy making through environmental intelligence;
- Promotion of the development of an EU "environmental monitoring/ remediation-based" economy;
- an exploitation strategy (including the formal IP protection) and a credible business model for the deployment and use of the novel device, sensor or technology in the relevant environment.

At the end of the project, you should come up with a mature technology prototype validated or demonstrated in relevant environment (TRL 5/6) and demonstrate the proposed advantage in specific environment (e.g. air, soil, water) or in a more general-purpose device that can unlock the full potential of the field and generate high impact in terms of economic returns (e.g. innovative companies created, increased market share, competitive advantage) and environmental benefits (e.g. earlier and more efficient detection and decontamination).

III.2.3 EIC Transition Challenge: Chip-scale optical frequency combs

Background and scope

Photonic integrated frequency combs are a novel class of on-chip frequency combs, generated by nonlinear parametric gain or other effects. In contrast to laser frequency combs, they are compact, offer large mode spacing that matches the telecommunication grid, can be integrated with other functionality and, importantly, are compatible with wafer scale integration i.e. for semiconductor volume fabrication.

Over the past decade photonic integrated frequency combs have made remarkable advances: they can now be battery powered, and integrated with III-V gain media, and

have a demonstrated potential for many system level applications, ranging from terabit per second coherent communication, parallel LIDAR, to neuromorphic computing, microwave generation, or astrophysical spectrometer calibration. Further applications are emerging in Raman spectroscopy and bio-sensing for e.g. medical diagnostics, environmental sensing, and food production.

Basic challenges remain to achieve the full potential of this technology. These include, just to name a few, the development of novel nonlinear platforms, improved conversion efficiencies, better understanding of the light states in driven nonlinear systems, extensions to new wavelength ranges, new ways of integrating chip scale combs with other functionalities (modulate, process), and comb designs that are compatible with wafer scale manufacturing. Moreover, the narrow range of existing material platforms needs to be augmented to encompass new nonlinear materials such as Gallium Phosphide, Lithium Niobate. This is complementary with the objectives of the European Chips Act.[53]

Overall goal and specific objectives

The overall goal of this Challenge is to advance technological developments of the light states in driven nonlinear systems and to develop novel platforms for chip-scale frequency combs.

The specific objectives of this Challenge aim at supporting successful transition from experimental proof of concept or technology validated in lab to technology validated or demonstrated in relevant environment by:

- Advancing or maturing novel technologies for chip-scale frequency combs for applications that require multiple frequencies of coherent laser light, with higher than the currently mainstream conversion efficiencies and with extensions to wavelength ranges, across all spectral regions with integrated photonic technologies.
- Mature the frequency combs technologies to include integration options for other functional elements, compatible with wafer scale manufacturing. Use of new nonlinear materials such as Gallium Phosphide, Lithium Niobate and others may be considered as well.
- Exploit the precision of optical frequency combs by developing concepts for new industrial applications such as:
  - Integrated multi-channel light sources for optical communication in datacentres,

[53] European Chips Act | Shaping Europe's digital future (europa.eu)

- Highly efficient sensors that measure mid-infrared molecular spectra,
- Optical atomic clocks on a chip.

The applicants should identify what are the limits of the current paradigms they are trying to improve and propose relevant metrics or KPIs to track progress and demonstrate success or a superior paradigm compared with current state of the art.

Expected outcomes and impacts

This Challenge aims to foster skills, talent, and innovation in semiconductor technologies, specifically for using advanced materials and the integration of photonics and microelectronics in cutting-edge chips.

This Challenge should lead to novel results deep-tech innovations for next-generation chip technologies that will enable new applications, providing strong competitive advantage for future innovative start-ups and SMEs that the EIC can further support towards scale up through its Accelerator scheme.

An exploitation strategy (including the formal IP protection) and a credible business model, its initial validation and a business plan are also expected outcomes of the project with the goal of attracting private investors and industrial partners.

IV. EIC Accelerator

- Do you have a high-impact innovative product, service or business model that could create new markets or disrupt existing ones in Europe and even worldwide?
- Are you a start-up or a small and medium-sized enterprise (SME) with the ambition and commitment to scale up?
- Are you looking for substantial funding but the risks involved are too high for private investors alone to invest?

If your answers to the above questions are 'yes', then the EIC Accelerator may be the right funding scheme for you.

Why should you apply?

The EIC Accelerator supports companies (principally SMEs, including start-ups) to scale up high impact innovations with the potential to create new markets or disrupt existing ones. The EIC Accelerator provides a unique combination of funding from EUR 0.5 to EUR 17.5 million and Business Acceleration Services (see Section V).

The EIC Accelerator focuses in particular on innovations, building on scientific discovery or technological breakthroughs ('deep tech') and where significant funding is needed over a long timeframe before returns can be generated ('patient capital'). Such innovations often struggle to attract financing because the risks and time period involved are too high. Funding and support from the EIC Accelerator is designed to enable such innovators to attract the full investment amounts needed for scale up in a shorter timeframe.

The EIC Accelerator supports the later stages of technology development as well as scale up. The technology component of your innovation must therefore have been tested and validated in a laboratory and other relevant environment (e.g. at least Technology Readiness Level 5). The EIC Accelerator looks to support companies where the EIC support will act as a catalyst to crowd in other investors necessary for the scale up of the innovation.

Applicants to EIC Accelerator can submit proposals through:

- EIC Accelerator Open, which has no predefined thematic priorities and is open to proposals in any field of technology or application;[54]

[54] In line with the Do Not Significant Harm principle, see Annex 2

- EIC Accelerator Challenges in predefined areas of emerging and strategic technologies.

Can you apply?

To be an eligible applicant to EIC Accelerator, you must apply as one of the following eligible entities:

- a single company classified as a SME and established within a Member State or an Associated Country (see Annex 2); or
- a single company classified as a small mid-cap (up to 499 employees) established in a Member State or an Associated Country, but only for exceptional cases for rapid scale up purposes ; or
- One or more natural persons (including individual entrepreneurs) or legal entities, which are either:
  - **a.** From a Member State or an Associated Country intending to establish an SME or small mid-cap (as defined above) in a Member State or Associated Country by the time of signing the EIC Accelerator contract or, in case the equity only is awarded, at the latest when agreeing on its investment component;
  - **b.** Intending to invest in an SME or small mid-cap in a Member State or an Associated Country and who may submit a proposal on behalf of that SME or small mid-cap, provided that a prior agreement exist with the company. The contract will be signed with the beneficiary company only; or
  - **c.** From a non-associated third country intending to establish an SME (including start-ups) or to relocate an existing SME to a Member State or an Associated Country. Your company must prove its effective establishment in a Member State or an Associated Country at the time of submission of the full proposal.

The standard admissibility and eligibility conditions are detailed in Annex 2.

There are limitations on the number of times you can submit a proposal described in the section on resubmission conditions below.

If you are currently a participant in an eligible project funded by Horizon Europe or Horizon 2020 then you may be able to apply through your existing project under the Fast Track scheme (see Annex 3). This scheme is managed by the funding body responsible for the existing project and applies to funding bodies listed in Annex 3. Applicants may also be able to apply if they have a project financed by an eligible programme managed by a Member State or an Associated Country under the pilot

Plug-in scheme. The Plug-in scheme to apply to the EIC Accelerator is detailed in Annex 4.

What support will you receive if your proposal is funded?

The total indicative budget for this call is EUR 1 135.7 million, of which EUR 409.3 million will be funded through Next Generation EU as this call contributes to the objectives to rebuild a greener, more digital and more resilient Europe. EUR 611.7 million of the total indicative budget will be allocated to Accelerator Open and EUR 523.5 million to Accelerator Challenges. The total indicative budget for each Accelerator Challenges is provided in Challenge descriptions below.

The EIC Accelerator provides *blended finance* (Innovation and Market Deployment Action) which is composed of:

- An *investment component* usually in the form of direct equity or quasi-equity such as convertible loans.[55]
- A *grant component* to reimburse eligible costs incurred for innovation activities, including demonstration of the technology in the relevant environment, prototyping and system level demonstration, R&D and testing required to meet regulatory and standardisation requirements, intellectual property management, and marketing approval (e.g. at least TRL 5[56] to 8).

You may request a *grant component only* ('*Grant Only*')[57] or '*Grant First*' (i.e. maximum of less than EUR 2.5 million to cover TRL 5 to 8 and without requesting an investment component for TRL 9) if you have not previously received EIC Accelerator grant-only support. In your proposal for grant-first support, you will have to include a milestone at mid-term or at the latest 6 months before the end of the project, for the EIC to assess and decide whether to proceed or not with the negotiation and the award of an investment component.

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[55] In future years, the investment component may also include reimbursable advance, loan guarantees and other forms of financial instruments, in complementarity with support under the InvestEU programme.

[56] To be interpreted as all aspects of TRL 4 completed and validation in relevant environment started.

[57] According to Horizon Europe Art.48.1, Grant-only support under the Accelerator shall be provided only under the following cumulative conditions:

(a) the project shall include information on the capacities and willingness of the applicant to scale-up;
(b) the beneficiary shall be a start-up or an SME
(c) a grant-only support under the Accelerator shall be provided only once to a beneficiary during the period of implementation of the Programme for a maximum of EUR 2.5 million.

The EIC Accelerator can also provide equity-only support to non-bankable SMEs, including start-ups, which have already received a grant-only support.

EIC Accelerator investment component

The minimum investment component is EUR 0.5 million and the maximum is EUR 15 million. a. A request **above EUR 15 million investment**[58] is allowed in duly justified cases for:

- proposals in technologies that are strategic for the Union;
- where there is a global competition; and
- where the funding needs significantly exceed what is available in Europe.

The investment component is intended to finance market deployment and scale up. In addition, it may be used for co-financing innovation activities. Within the maximum budget awarded by the Commission, the terms of investment will be negotiated on a case-by-case basis[59].

The investment component of the EIC is designed to fill the funding gap for high risk innovations to a stage where they can be co-financed or financed under the InvestEU programme or by private investors alone. As the EIC accelerator is designed to bear the risk of potential breakthrough market creating innovations in order to attract alternate private investors in a second stage, the lack of such investors at the initial stage would not prevent the EIC investment to be agreed.

When implementing investments approved by the Commission, the EIC Fund will ensure that supported companies keep most of their value, including their IP, in the EU or in the Associated Countries in order to contribute to their economic growth and job creation.

EIC Accelerator grant component

Eligible costs for the grant component are reimbursed up to a maximum of 70% within the ceiling of the maximum grant amount. The remaining 30% of the costs for these activities and the costs incurred for the commercial introduction of the product or

[58] In a pilot phase in 2022 and 2023, projects with an investment request above EUR 15 million a) cannot represent more than 15% of the budget over the year and b) will be submitted to the EIC / EIE Programme Committee for opinion. This pilot will be reviewed in 2023 to assess the approach to be taken in future for larger investment amounts.

[59] In the case of the investment component, the financial support may exceptionally be revised following a periodic or final review of an EIC Accelerator project (in line with Article 48(12), second paragraph of the Horizon Europe Regulation), also in light of the terms and conditions established in the investment agreement. The EIC Investment Guidelines are available on the EIC website.

service and full scale up operations (e.g. Technology Readiness Level 9 or above) will not be reimbursed by the grant .

The grant component should normally be less than EUR 2.5 million but may be for a higher amount in exceptional and well justified cases.[60] The innovation activities to be supported should normally be completed within 24 months but may be longer in well justified cases. The proposed duration should genuinely reflect your current TRL and the nature of the technology to be developed and demonstrated. The grant component may be used for subcontracting including, only if justified, for activities which are essential for the objectives of the project. The granting authority may object to a transfer of ownership or the licensing of results under certain conditions in accordance with the provisions set out in the contract for the grant component.

Grant Only and Grant First

You may request a Grant Only or Grant First support under the following conditions:

- *Grant Only:* You must provide evidence that you have sufficient financial means (e.g. revenue flow, existing investors or shareholders) to finance the deployment and scaling up of your innovation. In such a case, you will have to detail in your proposal all elements demonstrating that you possess or are in the process to obtain those necessary resources and financial means to provide for necessary expenditures normally covered by the investment component.

- *Grant First*: Your innovation is based on a scientific discovery or novel technology and still requires significant work to validate and demonstrate in relevant environments in order to properly assess its commercial potential. Such innovations may include, but are not limited to, those at relatively early stage (e.g. TRL 5 -6) or based on research results from the EIC Pathfinder and EIC Transition, as well as from the European Research Council. Grant-first companies are eligible for a follow on equity component subject to a milestone assessment attesting that the innovation activities are well under way and that the innovation has the potential for deployment or the interest shown by potential strategic/lead investor(s) in co-investing with the EIC into the company, as a sign of maturity of the innovation and of deployment perspective.[61]

[60] In the case of the grant component, the financial support may exceptionally be revised upon advice by the EIC Board and subject to a project review by external independent experts (in line with Article 48(11), second paragraph of the Horizon Europe Regulation). For "grant only" applications the maximum is less than EUR 2.5 million.

[61] The EIC may introduce further investment support for early stage/ low TRL projects to complement the grant first support. Information about this will be made available on the EIC website and in subsequent EIC Work Programmes.

If the milestone assessment for a *Grant First* proposal is positive, you will be:

a. required to demonstrate that you have sufficient financial means (e.g. revenue flow, existing investors or shareholders) to finance or any remaining innovation activities and the deployment and scaling up of your innovation; or

b. invited to enter due diligence and negotiations to receive an EIC equity investment, including to complement any other third party investments if insufficient. Allocation of the equity investment is conditional to the due diligence assessment.

The equity amount will be discussed and decided during the process described above. The applicant does not have to request an equity amount at the proposal submission level and the jury does not make any recommendations about equity amounts after the interview.

All successful proposals will receive, in addition to funding, tailor-made access to a wide range of Business Acceleration Services (see Section V).

The EIC Accelerator model contract for the grant component can be found on the Funding and Tender Opportunities Portal.

Indirect management of the investment component of the EIC Accelerator

In line with Article 11(3) of Council Decision 2021/764/EU establishing the Specific Programme implementing Horizon Europe, according to which, for the purpose of managing EIC blended finance under Pillar III Innovative Europe (the EIC Accelerator under Horizon Europe), the Commission is to make use of indirect management. The Commission plans to entrust tasks related to the implementation and management of the investment component of the EIC Accelerator to an implementing partner as of Q1 2023 for an indicative budget as shown in Annex 1.

How do you apply; how long does it take?

The application process consists of a number of steps:

1. *Short proposals* which may be submitted at any time and which will be evaluated remotely by EIC expert evaluators on a first come, first served basis;
2. If successful, you will be invited to prepare a *full proposal*, where you will have access to support through the EIC artificial intelligence-based IT platform and from EIC business coaches to develop a detailed business plan;

3. Full proposals will first be assessed remotely by EIC expert evaluators. If successful, you will be invited to a *face to face interview* with an EIC jury as the final step in the selection process;

4. If selected for funding, you will be invited to *negotiate an initial contract* for the grant component and to start the *due diligence* for the investment component.

1. Submission of short proposals

You may submit a short proposal at any time via the Funding and Tender Opportunities Portal that will direct you to the EIC artificial intelligence based IT platform. The short proposal consists of:

- A 5-page form where you must summarise your proposal and respond to a set of questions on your innovation, your potential market and your team;
- A pitch-deck of up to ten slides in pdf format;
- A video pitch of up to three minutes where the core members of your team (up to three people) should provide the motivation for your proposal.

All personal data and information in your proposal will be kept strictly confidential. [62] However, before submitting your full proposal, you will be offered the opportunity to share basic or all data and information with your Member State or Associated Country National Contact Point, for any support they may provide you with.

Within approximately 4 weeks, you will receive the evaluation result of your short proposal specifying whether or not your proposal met the evaluation criteria (set out in the next section) and can therefore proceed to submit a full proposal. In both cases, you will receive feedback from four expert evaluators.

2. Submission of full proposals

If your short proposal is successful then you will be entitled to receive coaching support to prepare a full proposal which can be submitted to one of the cut-off dates within the next 12 months from the date of the response to your short proposal. You may decide which cut-off to apply to.

[62] All personal data will be processed in accordance with Regulation (EU) 2018/1725 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data.

The cut-off dates for 2023 are:[63]

- 11 January 2023 at 17h00 Brussels local time (Accelerator Open only)
- 22 March 2023 at 17h00 Brussels local time (Accelerator Open and Challenges)
- 7 June 2023 at 17h00 Brussels local time (Accelerator Open and Challenges)
- 4 October 2023 at 17h00 Brussels local time (Accelerator Open and Challenges)

You must prepare your full proposal on the EIC AI-based platform, which includes a methodology to help you to develop your detailed business-plan and a number of automatic checks and feedback to guide you through the process. The full proposal consists of that full business plan and full information on your company's finances and structure. You will also need to propose a set of milestones to be used as a basis for the EIC to manage the funding for your innovation.

As support for the development of your full proposal, you will be entitled to receive coaching from one of the business coaches from the EIC Business Acceleration Services.[64] You can only receive this support once for a proposal. The automatic checks and feedback from the IT platform and the optional coaching support are designed to help you prepare your full proposal. However, it is your decision how to respond to the feedback and support, and the content of your proposal is your sole responsibility.

All personal data and information in your proposal will be kept strictly confidential. However, before submitting your full proposal, you will need to give consent to share necessary information with the EIC Fund. You will also be offered the opportunity to share certain data and information with investors who have undergone a prior EIC due diligence process and who may wish to invest in your company or project and assist you in developing your idea into a business plan. You will also be asked to agree to share your relevant data with alternative funding bodies of your Member State or Associated Country.

Once you submit your full proposal, it will be assessed remotely against award criteria (set out in the next section) by three EIC expert evaluators. Within approximately five-six weeks you will be informed about the result of the remote evaluation and will

[63] This call is continuously open and applications can be submitted at any time. From the day following the publication of this Work Programme, considered the formal 'call opening date' for the EIC Accelerator 2023, the conditions detailed in this work programme become applicable. The Director-General responsible may delay the cut-off(s) by up to two months. Applicants will be invited to select an EIC business coach out of a dedicated database and will receive 3 days of remote coaching.

[64] It is nevertheless up to the applicants to decide if and when to use the coaching services.

receive feedback. If successful, you will be invited to attend a face to face interview with an EIC Jury.

3. Face to face interviews with an EIC Jury.

All companies receiving a GO from the remote evaluation stage will be invited to the face to face interviews. In case the number of companies to invite exceeds the capacities of the initially planned interview sessions, a first batch of companies will be invited according to the following prioritisation, starting with category 'a' below, proceeding to the next:

a. All companies that were invited by the jury to resubmit directly to one of the next interview sessions (see Table 8 on resubmission limits);

b. Gender balance: women-led companies (until 40% of invited companies is reached);

c. Submission date and time: any remaining companies will be prioritised based on the date and time submission of their short proposal.

The remaining batch of companies to interview will be invited to a further set of interviews to be organised before the interviews of the next cut-off date.

Face to face interviews will be organised approximately eight-nine weeks after the cut-off date (or longer if there is a need for a further set of interviews). At the interview, you will be assessed by a panel of maximum six jury members. EIC Programme Managers and representatives from the EIB as Investment Advisor to the EIC Fund may participate in the interview, but will not be members of the jury and will not take part in the jury's decisions. Detailed information about the format of the face to face interview will be communicated to you in the invitation. You will be informed about the result of the interview within approximately two-three weeks.

4. Invitation to negotiate grant component and due diligence process

Blended finance will be made available through a single process under an overall coordination by the Agency.

If you are selected for funding, you will be invited to negotiate. Once the grant negotiations are concluded, a single award decision will be adopted by the Commission and will serve as the basis for the signature of the Accelerator Contract. The single award decision will also define, if applicable, the maximum amount of the investment component. Following the award decision, you will be invited to sign an initial contract that will provide for the grant component and, if applicable, for an *indicative* amount investment component. You will then receive, a first pre-financing payment on the grant component. In most cases, the first pre-financing will normally be issued within

five months of the cut-off date and within three months from the date your proposal is selected for funding.

In parallel, if your proposal included an investment component, the EIC Fund will start the negotiation process to structure the potential investment agreement (compliance checks,[65] due diligence, syndication of potential co-investors, tranches of investment and related objectives and milestones, etc.).

During this stage, and in particular if you have not yet secured other investors, the EIC Fund or the Business Acceleration Services provided by the Agency will also look for other investors. You will be asked for your consent before other investors are contacted or engaged in negotiations.

At the end of this process, which should usually take between two to six months, an investment component will be agreed. The initial contract will have to be amended to integrate this agreement, and any relevant corresponding changes (e.g. in definitions of milestones). The decision to invest as well as the amount and the terms of the investment component will be made by the EIC Fund in compliance with the EIC Investment Guidelines.[66]

As an outcome of the due diligence process, the investment may be rejected, notably due to the results of the due diligence, compliance checks, existence of irregularities, in cases of misrepresentation by the applicant or in the case of a manifest error in its assessment. In such a case, the Commission may also request amendments or, in the cases of misrepresentation, submission of false information, non-submission of information, suspicion of fraud or any other ground listed in the EIC Accelerator contract, it may terminate your initial EIC contract covering the grant component. The EIC Accelerator contract may also be terminated if the non-investment is likely to affect the implementation of the action or puts into question the decision awarding the financial support.

Should the outcome of the due diligence conclude that the innovation or your company is not yet mature for equity investment, the EIC Fund may recommend to the Commission that you start with the grant component first, and that the investment component will be subject to reaching defined milestones that will be included in the contract for the grant component via an amendment.

[65] Such as KYC (Know Your Customer), AML/CTF (Anti-Money Laundering / Combating the Financing of Terrorism), Tax compliance, Sanctions, etc.

[66] The investment decisions will also be reported to the Programme Committee in accordance with Article 14 of Council Decision (EU) 2021/764.

How does the EIC decide if your proposal will be funded?

The EIC Accelerator is highly selective and only the very best proposals can be funded. Your proposal will be assessed on its merits by leading experts and the Commission will ensure open and fair competition to all eligible proposals submitted.

1. Evaluation of short proposals

Short proposals will be evaluated by four EIC expert evaluators as soon as they are submitted. These four evaluators' competences will match the area of technology and market application of your innovation. They will have access to analyses (for example on related scientific publications and patents) generated by the EIC artificial intelligence-based IT platform. The analyses produced by the artificial intelligence IT platform are not part of the evaluation, and will be not be used to score your proposal. The EIC expert evaluators will essentially look at the innovativeness/disruptiveness of your idea, its impact and your team using the evaluation criteria specified below.

Each evaluator will assess whether your short proposal meets each of the evaluation criteria (Table 6) and give a GO or NO GO:

- If at least two evaluators give a GO, then your short proposal will be successful and you will be invited to prepare a full proposal.
- If more than two evaluators give a NO GO, then your proposal is considered unsuccessful. You may resubmit your proposal, according to the rules for resubmission (see Table 8 below) with improvements and providing rebuttals for comments provided by expert evaluators on your initial submission.[67]

[67] If your proposal is unsuccessful at short proposal stage and you wish to resubmit an improved proposal, you will be offered the opportunity to rebut comments provided by the experts on your initial proposal. For your resubmission, the four new experts assigned to assess your proposal will be requested to take these elements into account. If your resubmission is unsuccessful and within 5 working days after receiving notification, you may file a complaint if you believe that the evaluator(s) made an incorrect assessment on the following grounds: a) a factual mistake; b) absence of information which is not required at short proposal stage; and c) a manifest error of appreciation on the scope and purpose of the Accelerator. In cases where within 5 working days the Agency finds that there is an error on one of the above grounds, it will be assessed again by the concerned expert(s) within 5 working days. If your proposal is reevaluated as a GO, you will be eligible to introduce your full application to the same cut-off date that you would have been able to submit to, with a GO from the initial evaluation. Otherwise, your proposal will be definitively rejected and you will only be able to resubmit in accordance with the resubmission rules (Table 8).

Table 6. Evaluation criteria for EIC Accelerator Open and Challenges at short proposal stage
Excellence
Breakthrough and market creating nature: Does the innovation have a high degree of novelty – compared to existing products, services and business models – with the potential to create or significantly transform markets?
Timing: Is the timing right for this innovation in terms of market, user, societal or scientific of technological trends and developments?
Impact
Scale up potential: Does the innovation have scale up potential, including the potential to develop new markets and impact on the growth of the company? Does the company show a clear and convincing vision, taking into account its current level of development and maturity, in relation to the targeted market, the business model and growth forecasts?
Broader impact: Will the innovation, if successfully commercialised achieve positive broader societal, economic, environmental[68] or climate impacts?
Level of risk, implementation, and need for Union support
Team: Does the team have the capability and motivation to implement the innovation proposal and bring it to the market? Is there a plan to acquire any critical competencies which are currently missing, including adequate representation of women and men?

2. Evaluation of full proposals and face to face interviews

Full proposals will be assessed following the cut-off dates listed above. This will start with a remote evaluation where your full proposal will be sent to three EIC expert evaluators (different than the short proposal evaluators) who will be matched against the area of technology and application of your innovation. The expert evaluators will then assess your proposal against the award criteria set out below. They will have access to analyses (for example on related scientific publications and patents, market trends and perspectives, etc.) generated by the EIC artificial intelligence-based IT platform. If your proposal is a resubmission, the evaluators will also assess the changes and improvements made since the first submission and take into account any comments you may wish to make to respond to the feedback from the first evaluation.

Each evaluator will assess whether your full proposal meets each of the award criteria and give a GO or NO GO per criterion:

[68] Projects must comply with the 'do no significant harm' principle enshrined in Article 17 of the EU Taxonomy Regulation as part of the eligibility criteria.

- If all three evaluators give a GO for all the criteria, then your full proposal will be successful and you will be invited to a face to face interview with an EIC jury.
- If your proposal is a first submission and one or more evaluators give a NO GO under any of the criteria then you will not be invited to the interview, but you may resubmit an improved proposal (see Table 8).[69]
- If your proposal is a resubmission and two evaluators give a GO on all criteria and the other evaluator gives a GO on two of the criteria and a NO GO on the other criterion(hence you score 8 GOs), then your proposal will be evaluated by a fourth expert on the criterion which received a NO GO. If the fourth expert gives a GO on this criterion you will be invited to interview, otherwise your proposal will be rejected.

At the face to face interviews, the EIC jury will have prior access to your short and full proposal and the evaluation results. Jury members will also have access to analyses (for example on financial metrics) generated by the EIC AI-based platform and in certain cases the independent assessment of a specialised expert in the field of science or technology. Such analyses will be made available to applicants after the decision.

Jury members, based on your interview and their overall assessment, will recommend your proposal for funding (GO) or not (NO GO):

- If the proposal receives a GO and is recommended for funding, the jury may recommend lowering the grant amount if activities above TRL 8 are detected. Should the jury find the level of risk to be lower than initially identified by the applicant, the jury may also recommend another combination of components, including substitution of the grant component by a reimbursable advance.[70] The jury is not expected to propose a different amount of investment than initially requested by the applicant, except in duly justified cases. Applicants are reminded that the amounts awarded by the Commission are subject to negotiation, including due diligence. The jury may also make recommendations to be taken into account when negotiating the grant or investment component,

[69] If your proposal is unsuccessful at full proposal stage and you wish to resubmit an improved proposal, you will be offered the opportunity to rebut comments provided by the experts on your initial proposal. For your resubmission, the three new experts assigned to assess your proposal will be requested to take these elements into account. Should the resubmitted proposal be considered as NO GO, the proposal will be definitively rejected, and you will only be able to resubmit in accordance with the resubmission rules (Table 8).

[70] Reimbursable advances may be introduced during the course of 2022/23 in which case the terms and conditions will be made available on the EIC website. Once introduced, they would be considered by the EIC Jury in cases where the innovation cycle (market deployment) is short. The amount would be limited to a maximum of EUR 2.5 million and will reimburse up to 70% of the eligible costs of innovation activities. The reimbursable advance will have to be paid back to the EU on an agreed schedule as an interest-free loan. In case you are not able to reimburse or do not want to reimburse, the reimbursable advance will be transformed into equity. In case of bankruptcy, the reimbursable advance will be considered as a grant and hence written off.

including for example on the milestones and the valuation, and on proposed coaching activities.

- If your proposal receives a NO GO and is not recommended for funding, the jury will recommend whether:
  - **a.** Your proposal has the potential to be a GO if specific targeted improvements are made. In this case, you will be allowed to resubmit your proposal (see resubmission rules in Table 8) directly to the face to face interviews within a period of 12 months from the submission of the full proposal. Such a specific, targeted resubmission will only be permitted once.
  - **b.** Your proposal will be awarded a Seal of Excellence[71] to facilitate funding from alternative funding sources and access to EIC Business Acceleration Services. Exceptionally, EIC juries may recommend that your proposal does not receive a Seal of Excellence if they find weaknesses in your proposal which were not identified by the expert evaluators. In such cases, you will receive feedback to justify this recommendation.

Following the notification of the outcome of your application, you will receive an official rejection letter (and your Seal of Excellence, if awarded) following an unsuccessful resubmission or at the latest 12 months after your first submission. Alternatively, you may request an official rejection letter and your Seal of Excellence, if awarded, following your first submission of a full proposal, if you do not intend to resubmit it.

Indicatively, the budget will be allocated approximately equally between the cut-offs. In case the amount allocated to GO applicants is less than the budget available for that cut-off, or additional budget becomes available as a result of the contract concluded with EIC Awardees, then the remaining available budget will be allocated to the subsequent cut-off. In case the amount allocated to GO applicants is above the budget available, then a number of applicants corresponding to the unavailable budget will be awarded funding using the available budget of the subsequent cut-off. Such applicants will be identified using the ordering set out above for the invitation to interviews.

Proposals will be assessed according to the following award criteria (Table 7). The jury may focus the interview on any element of your proposal based on the remote evaluation result and its own assessment.

[71] Seals of Excellence are only awarded if you have given consent to share data about your application with other alternative funding bodies.

Table 7. Award criteria for EIC Accelerator Open and Challenges at full proposal stage and face to face interview
Excellence
Breakthrough and market creating nature: Does the innovation have a high degree of novelty, compared to existing products, services and business models, with the potential to create or significantly transform markets? Additional Consideration for EIC Accelerator Challenges ONLY: How relevant are the proposal objectives in contributing to the specific objectives of the Challenge?
Timing: Is the timing right for this innovation in terms of market, user, societal or scientific of technological trends and developments?
Technological feasibility: Is the innovation based on a technology or technologies that have been adequately assessed at least in a laboratory environment and relevant environments to characterise the potential and assess the level of risk (at least TRL 5/6)? Is the technology developed in a safe, secure and reliable manner?
Intellectual Property: Does your company have the necessary Intellectual Property Rights to ensure freedom to operate and adequate protection of the idea?
Impact
Scale up potential: Does the innovation have scale up potential, including the potential to develop new markets and impact on the growth of the company? Are the associated financial needs well assessed and realistic?
Broader impact: Will the innovation, if successfully commercialised achieve positive broader societal, economic, environmental[72] or climate impacts? Additional Consideration for EIC Accelerator Challenges ONLY: Does the proposed application have the potential to contribute to the expected outcomes and impacts set out in the Challenge?
Market fit and competitor analysis: Has the potential market for the innovation been adequately assessed, including conditions and growth rates? Has a competitive analysis been thoroughly performed, including identification of potential customers and relevant types of users, including women and men, definition of unique selling points and key differentiation from competitors?
Commercialisation strategy: Is there a convincing and well thought-through strategy for commercialisation, including regulatory approvals/compliance needed, time to market/deployment, and business and revenue model?

[72] Projects must comply with the 'do no significant harm' principle, see Annex 2.

Key partners: Have the key partners required to develop and commercialise the innovation been identified and engaged, including their roles/competences and a sufficient level of commitment and incentivisation?
Level of risk, implementation, and need for Union support
Team: Does the team have the capability and motivation to implement the innovation proposal and bring it to the market? Is there a plan to acquire any critical competencies which are currently missing, including adequate representation of women and men?
Milestones: Is there a clear implementation plan with defined milestones, work packages and deliverables, together with realistic resources and timings?
Risk level of the investment: Does the nature and level of risk of the investment in your innovation mean that European market actors are unwilling to commit the full amount alone? Is there evidence that market actors would be willing to invest, either alongside the EIC or at a later stage? *Note: Small mid-caps will be expected to provide documentary evidence that their bank has refused the financing needed for the project.*
Risk mitigation: Have the main risks (e.g. technological, market, financial, regulatory) been identified, together with measures to take to mitigate them?

The following limitations on resubmission apply to the EIC Accelerator proposals (both Open and Challenge based topics) (Table 8). If you submitted to a Challenge call which is not continued in a future EIC work programme, you may resubmit to the Open call at a subsequent cut-off.

Table 8. Limitations on resubmission of proposals[73] to the EIC Accelerator[74]	
Remote evaluation of short proposals	
If rejected one time	You may resubmit to the short application stage at any time, but will be expected to have made improvements.
If rejected second time	You will not be allowed to submit another proposal for 12 months, starting from the date of submission of your revised short proposal, at which point you may only submit a new proposal (which should be significantly different from your previous proposal) to the short application stage.
Remote evaluation of the full proposal	
If rejected one time	You may resubmit directly to the remote evaluation of the full proposal at a subsequent cut-off within 12 months from the date of the submission of the first full proposal, but will be expected to have made improvements. However, if your first full proposal submission was made to a cut-off in 2021 or 2022, you may resubmit to any of the cut-offs in 2023.
If rejected a second time	You will not be allowed to submit another proposal for 12 months, starting from the date of submission of your revised full proposal, at which point you may only submit a new proposal (which should be significantly different from your previous proposal) to the short application stage.
Face to face interviews with EIC Juries	
If rejected one time but the jury decides your proposal is a potential GO if specific targeted improvements are made (resubmission direct to face to face interviews)	You may be invited to resubmit a revised proposal directly to one of the next face to face interviews within a maximum 12 month period. You will be invited to provide a rebuttal to address the issues identified by the jury and may upload an updated pitch deck. Such a direct resubmission to the face to face interviews will only be permitted once.

[73] For this table, proposals refer to applications submitted by the same natural person/legal entity.

[74] These rules apply separately for each stage of the process. If you submitted to a Challenge call which is not continued in a future EIC work programme, you may resubmit to the Open call at a subsequent cut-off.

If rejected one time (including following a resubmission direct to the face to face interviews)	You may resubmit directly to the remote evaluation of the full proposal at a subsequent cut-off within 12 months from the date of the submission of the first full proposal, but will be expected to have made improvements. However, if your first full proposal submission was made to a cut-off in 2021 or 2022, you may resubmit to any of the cut-offs in 2023.
If rejected a second time	You will not be allowed to submit another proposal for 12 months, starting from the date of submission of your revised full proposal, at which point you may only submit a new proposal (which should be significantly different from your previous proposal) to the short application stage.

IV.1 EIC Accelerator Open

EIC Accelerator Open has no predefined thematic priorities and is open to proposals in any field of technology or application.

The EIC Accelerator supports the later stages of technology development as well as scale up. The technology component of your innovation must therefore have been tested and validated in a laboratory or other relevant environment (e.g. at least Technology Readiness Level 5 or higher). The EIC Accelerator looks to support companies where the EIC support will act as a catalyst to crowd in other investors necessary for the scale up of the innovation.

The EIC Accelerator focuses on innovations building on scientific discovery or technological breakthroughs ('deep tech') and where significant funding is needed over a long timeframe before returns can be generated ('patient capital'). Such innovations often struggle to attract financing because the risks and time period involved are too high. Funding and support from the EIC Accelerator is designed to enable such innovators to attract the full investment amounts needed for scale up in a shorter timeframe.

IV.2 EIC Accelerator Challenges

The total indicative budget for this call is EUR 523.5 million, of which EUR 257.3 million will be funded through Next Generation EU, and the indicative budget for each Challenge is specified in the below Challenges. However, if there is insufficient applications selected for funding for a Challenge, the budget will be transferred to the other Challenges. In case there is insufficient applications selected for all the Challenges, the remaining budget will be transferred to the Accelerator Open.[75]

The Accelerator Challenges have been identified in areas where breakthrough technologies or game-changing innovations developed by start-ups or SMEs can have a major impact on EU objectives. In 2023, these objectives include REPowerEU, Food Security, Industrial technology roadmaps, the Health Emergency Response Authority (HERA) and some Horizon Europe missions.

IV.2.1 EIC Accelerator Challenge: Novel biomarker-based assays to guide personalised cancer treatment

Background and scope

The development of oncology treatments have the lowest success rate when compared to any other therapeutic area, with only 5% of the cancer drugs entering the market after clinical phase I. Additionally, the experience gained from running clinical trials over the past ten years indicates that the current standard biomarker tests do not allow to optimise treatment for cancer patients, and that predictive biomarkers are currently being underutilised in the clinic, despite the fact that the standard of care today recommends that newly diagnosed cancer patients receive predictive molecular testing. This is due to several reasons, including limited evidence of the clinical utility of certain biomarkers and the uncertainty of clinicians to interpret the results.

As a result, there is a huge need to design novel and effective ways to predict, guide and monitor the progression of a disease in patients afflicted by refractory cancers (cancers with a 5-year overall survival of less than 50% from time of diagnosis). Hence, it is essential to gain critical insights that would enable to identify the subset of cancer patients who are likely to respond to a specific anticancer drug (e.g. match cancer molecular subtypes to current treatments using comprehensive multi-omic panels). In addition, there is a clear need to develop comprehensive multimodality predictive tests that can help physicians guide the clinical management of potentially precancerous

[75] With the exception of the Next Generation EU component of the budget.

lesions. Examples include the management of patients with pancreatic cysts (which can be benign or precancerous leading to invasive cancer) and Barrett's oesophagus (where the distinction is critical between patients with stable Barrett's oesophagus versus those who progress to cancer). Finally, there is a need to make more accurate prognosis on which patients, among those who underwent treatment, are more likely to recur, for example through liquid profiling for real-time assessment of tumour mutational profile for post-treatment clinical management of cancer patients. One example of this is the detection of tiny amounts of circulating tumour DNA in the bloodstream of bladder cancer patients following surgery, which can predict who has higher chances to relapse. Another example of the power of the prognostic potential of the circulating tumour DNA can be recognised in a postoperative surveillance study of non-metastatic colorectal cancer.

This EIC Accelerator Challenge aims to improve the efficacy, safety and uptake of therapeutic approaches against refractory cancers, using novel comprehensive predictive, prognostic and companion diagnostic tests, in the context of precision oncology.

This Challenge is relevant to specific strategic goals of the Europe's Beating Cancer Plan[76] and is complementarily aligned with the current priorities of the Innovative Health Initiative. In addition, this Challenge is complementary and contributes to the EU Cancer Mission, and specifically to objective 3 of the Cancer Mission implementation plan: "*Optimise diagnostics and treatment*", and in particular to the specific aim: "*To ensure that more patients have access to the latest treatments adapted to their conditions, and with minimal secondary effects*".

Specific objectives

The overall goal of this Challenge is to support and accelerate the preclinical validation and/or clinical phase 1 work carried out by innovative SMEs (including start-ups, spinouts) and small midcaps to develop novel predictive, prognostic and companion diagnostic assays to guide cancer treatment. This Challenge has the following specific objectives:

- to develop novel companion diagnostic assays, including through liquid profiling to identify who, among cancer patients, is more likely to benefit from a given treatment (guided treatment);
- to develop novel predictive biomarker-based assays to identify who, among patients with potentially precancerous lesions, is more likely to develop cancer;

[76] A cancer plan for Europe | European Commission (europa.eu)

- to develop novel prognostic assays including through liquid profiling to identify who, among the cancer patients who underwent treatment, is more likely to recur;
- to develop novel companion diagnostic assays, including through liquid profiling to identify who, among the cancer patients receiving treatment, is more likely to develop side effects as a result of the treatment and,
- to develop novel monitoring biomarker-based assays to effectively monitor the clinical course of the disease.

Expected outcomes and impacts

As expected outcomes from this Challenge, clinicians will be able to:

- Identify, who among cancer patients, is more likely to benefit from a given treatment (guided treatment),
- Identify, who among patients with potentially precancerous lesions, is more likely to develop cancer,
- Identify, who among the cancer patients having underwent treatment, is more likely to recur,
- Identify who among the cancer patients receiving treatment, is more likely to develop side effects as a result of the treatment, affecting their quality of life and
- More effectively monitor the clinical course of the disease.

The outcomes of this Challenge would be essential for Europe, to establish the basis for a globally competitive biotech portfolio, specifically targeted to predictive and prognostic biomarker-based solutions for downstream clinical use. Clinical establishments, industry, investors and healthcare policy makers, will all benefit from the creation of such a biotech portfolio composed of innovative start-ups and scaling up SMEs. By raising awareness and knowledge among healthcare policy makers, it is expected that the integration of liquid profiling and other biomarker-based tests into routine cancer care will be accelerated, and physicians enabled to more effectively apply and monitor guided treatment to cancer patients in the era of precision oncology.

Novel biomarker-based treatments will enable to apply the right treatment to the right patient, to minimise unnecessary side effects and to allow a more effective clinical monitoring of the disease. The ultimate expected impact is a significant increase in the quality of life, life expectancy and survival rate of cancer treatment in patients with refractory cancers.

Indicative budget: EUR 65.0 million

IV.2.2 EIC Accelerator Challenge: Aerosol and surface decontamination for pandemic management

Background and scope

The management of infectious diseases propagated by aerosol suspensions of pathogens or by direct physical contact with surfaces populated by pathogens often requires social distancing.

Yet, social distancing can have a dramatic effect on economies, e.g. precluding air-travel, retail activities, office teamwork, etc. Moreover, insufficient social interaction is a major cause of depression and anxiety and underpins the observed peaks in mental disorder incidence linked to pandemic events.

The creation and commercialisation of technologies enabling pandemic-resilient behavioural patterns, particularly in poorly ventilated spaces and at close inter-personal distances, is of critical importance.

Substantial progress has recently been achieved on innovative barrier technologies for aerosol capture, e.g., nanostructured and functionalised membranes with tuneable properties, membrane-embedded microbial deactivation, e.g., by enzymatic or metal-enabled deactivation of the viral load and deep-tech enabled modelling of airflow and pathogen circulation in closed spaces. Further, rapid detection of pathogens has become a reality using PCR/LAMP, CRISPR/Cas12a, immunoassays, novel nanomaterials with electrical, luminescent, or catalytic properties, MEMS pathogen sensors and others.

These achievements can be brought together to realise systems and devices capable of continuous air filtering, pathogen capture and deactivation for air purification, with sampling and real-time pathogen detection and profiling, in addition to advanced next generation face mask technologies and solid surface decontamination.

This Challenge calls for proposals by SMEs with technologies, backed by scientific evidence, supporting normal social interaction, devoid of social distancing, in the presence of air- or surface-borne pathogens. In doing so, this Challenge aims to strengthen EU's industry preparedness and competitiveness in the area of pandemic safety technologies.

This Challenge contributes to the mission of the European Health Emergency Preparedness and Response Authority (HERA)[77].

[77] Health Emergency Preparedness and Response (HERA) (europa.eu)

Specific objectives

The proposals should target the development and commercialisation of technological solutions facilitating social interaction in the context of pandemic emergencies, by means of one or more of the three following approaches:

- Full systems for high-efficiency aerosol capture, pathogen deactivation and air circulation management in closed-environments (e.g., office space, in-flight, retail stores, etc.), including advanced air-filtering architectures and dynamic air circulation optimisation.
- Next-generation face mask technologies with smart filtration materials to exceed N95 performance at low airflow resistance, with improved retention/rejection of sub-micron particles.
- Rapid surface decontamination devices beyond state-of-the-art UV-C irradiation systems and biocidal agent dispersion.

Where advantageous, pathogen profiling sensors and sub-systems could be integrated with air renewal systems, face masks or surface decontamination devices to provide quasi- real-time information on pathogen presence for rapid decision making and/or autonomous optimisation of air circulation.

The proposals should provide preliminary evidence demonstrating that social distancing can be avoided or substantially reduced, under realistic pathogen infectivity assumptions, with the targeted technologies.

Expected outcomes and impacts

By reducing the need for social distancing in the event of infectious pandemics, this Challenge will empower society at large to sustain unaltered economic and social dynamics in the event of pandemic outbreaks.

Indicative budget: EUR 65.0 million

IV.2.3 EIC Accelerator Challenge: Energy storage

Background and scope

Energy storage plays a significant role in ensuring flexibility and security of supply in the energy system by facilitating the integration of renewable generation, supporting the grid, and shifting energy to the time when it is most needed. At the same creates potential business models in the field of energy services and the involvement of end users, facilitating participative approaches to energy consumption, energy savings and the development of energy communities.

To reach these goals, it is crucial to develop a range of breakthrough solutions for electrical and thermal energy storage at low cost, high density, high charging/discharging efficiency and enhanced durability. The scaleup of these technologies (chemical, electrical, electrochemical, mechanical, and thermal) for energy storage at different scales, duration and uses (from stationary to mobility), including their optimal operation to enable demand response strategies and 'storage as a service' concepts, will set up European sectors-coupled and flexible energy systems.

This Challenge is therefore strategic for the REPowerEU[78] plan, transforming the EU into a resource-efficient economy, ensuring increasing Europe's energy independence from unreliable suppliers and volatile fossil fuels, facilitating the development of social innovations and promotion of participative approaches for a fair energy transition, increasing awareness for a rationale use of energy, while preserving Europe's natural environment and tackling climate change.

Specific objectives

This Challenge targets groundbreaking innovations in any field of technology that have a high potential to meet the following objectives:

- to store electric and/or thermal energy at low cost, high density, high charging/discharging efficiency and enhanced durability.
- to design technological approaches (chemical, electrical, electrochemical, mechanical, thermal) for energy storage at different scales (centralised at large industrial facilities premises or distributed and at small scale level – mobile electronics), duration (short – millisecond to day, medium – days to month and long term – months to seasons) and uses (from stationary to mobile).
- to develop technologies that, without using critical raw materials[79] or ensuring the maximisation of their recycle/reuse, minimise their carbon footprint measured through a life-cycle analysis (including cost and social impact evaluation). The integration of technologies in products and services shall embrace circular and life cycle thinking approach, and support the transition to a circular economy.

The proposed technologies could also address the smart operation and control of storage assets, their integration with demand response strategies, predictive maintenance, load forecasting and decentralised renewable energy technologies, and novel business models (i.e. storage as a service) to increase energy systems flexibility and facilitate the integration of energy storage.

[78] REPowerEU: affordable, secure and sustainable energy for Europe | European Commission (europa.eu)
[79] Critical raw materials (europa.eu)

Expected outcomes and impacts

The possibility to store electrical or thermal energy at low cost, high density, high charging/discharging efficiency and for different duration (from short to long) will:

- enable a strong penetration of intermittent renewable energy resources by addressing the spatial and temporal mismatches between generation and demand,
- set up decarbonised, interconnected, sector-coupled and flexible energy systems.
- Increase Europe's energy independence from unreliable suppliers.

Indicative budget: EUR 100.0 million

IV.2.4 EIC Accelerator Challenge: New European Bauhaus and Architecture, Engineering and Construction digitalisation for decarbonisation

Background and scope

The European Commission's "Fit for 55" package set an ambitious target of reducing net greenhouse gas (GHG) emissions by at least 55% by 2030[80]. Achieving it is key in reaching climate neutrality by 2050 as proposed under the European Green Deal[81]. But the reality is that our built environment represents 5-12% of CO2 emissions in the EU, so should contribute considerably to reductions in GHG emissions.

Life cycle greenhouse gas (GHG) emissions of buildings show a clear reduction trend due to improved operational energy performance. However, Life Cycle Assessment (LCA) analyses also reveal an increase in relative and absolute contributions of GHG emissions embodied in new buildings. Such embodied GHG emissions are caused during all stages leading up to final construction of the building, including in the choice of materials and their subsequent fabrication. For example, concrete is the second most used material after water, and current building practices are responsible for 35% of EU waste. Concrete is an important contributor to embodied GHG emissions of the built environment. These emissions originate from all the stages leading up to final construction of the building, including design processes, building and fabrication techniques, and choice of materials.

Achieving fundamental reductions of GHG emissions in our built environment will require nothing short of a radical transformation in the Architecture, Engineering and

[80] Fit for 55 - The EU's plan for a green transition - Consilium (europa.eu)
[81] A European Green Deal | European Commission (europa.eu)

Construction (AEC) sector by heavily grounding it on digitalisation practices and by modernising the value chains. However, this shift should also go beyond technical changes. It should embrace a human-centred approach based on both digital and place-based innovations with climate neutral, circular, regenerative, inclusive, and beautiful building environments for people to live in, now and in the future.

Initiatives such as the New European Bauhaus[82] offer a framework for these new digital processes on design, fabrication, and new materials to be inspired by the efficiency, complexity, and aesthetics of nature, and consider items such as the recovery of local resources or the recycling and upcycling of wasted materials. The digitisation of AEC can benefit from this type of broader perspectives to operate even more significant transformations in the sector through multi-level and transdisciplinary ventures.

For the AEC sector to deliver on hard decarbonisation targets of the European Green Deal as well as on sustainability and well-being principles aligned with the New European Bauhaus, it must change faster.

Specific objectives

The overarching objective of this Challenge is to provide transformative digital products or digitally enabled solutions for the AEC sector that can help it achieve climate neutrality while striving to comply with or contribute to the human-centred quality values and principles brought forward by the New European Bauhaus.

Support will be provided to pioneering start-ups and SMEs that propose digital or digitally enabled design and fabrication products with the aim to reduce or eliminate the embodied CO2 emissions of buildings by enabling the use of less materials and / or of alternative materials. In this case, these may be new materials, or materials attached to the rediscovery of local resources and / or recovery including recycling and upcycling practices. Support may also target ventures with use cases to reduce low or negative carbon footprint alternative of materials themselves, or ventures with solutions to reduce or eliminate the waste of the current AEC fabrication practices.

Therefore, this Challenge aims to support pioneering deep-tech ventures that are building the AEC value chain of the future today. These ventures execute on delivering disruptive, digitally enabled AEC products and services that allow their customers to reduce or eliminate their embedded building emissions in the areas of:

- Computational design. This relates to ventures that develop and scale radical new products for mass-adoption of parametric, generative and algorithmic

[82] New European Bauhaus: beautiful, sustainable, together. (europa.eu)

design, life-cycle analysis, or breakthrough products in physical simulation or digital twin.

- Digital fabrication. This relates to ventures developing and commercializing large-scale fabrication products (or components or solutions for that) with a view on future economic industrialisation of the AEC value chain, for example 3D-printing products, such as "construction variants" of Fused Deposition Modelling (FDM), Wire-and-Arc Additive Manufacturing (WAAM), Binder-Jetting (BJ), Stereolithography (SLA), or Digital Light Processing (DLP), robot assisted composites fabrication, factory and field robotics, automation products, digital moulds, solutions for distributed building factories. This includes innovative solutions to further progress the current Cross-Laminated Timber (CLT) processing factories.
- Alternative materials. This relates to ventures active in the development, production, advanced application of alternative building materials, or building concepts, building elements, design coupled with fabrication concepts, such as stereotomy 2.0, based on advanced uses of alternative materials. This includes innovative applications of timber, timber derivatives such as CLT or Glulam, timber composites, curved CLT surfaces and high performance composed building elements. This also includes other natural materials such as fungal architecture, cork, bamboo, hemp, as well as locally sourced materials such as earth, clay and stone, as well as recycled and waste-based materials, as well as engineered composites of such materials.

This Accelerator Challenge will consider out-of-scope proposals focusing exclusively on operational carbon emissions and/or the operational energy efficiency of the built environment. However, it is important to highlight that innovations envisioning reductions of embodied CO2 emissions shall be at least as effective in reducing operational CO2 emissions as the technologies they substitute by the time of market adoption. Also, it is noted that a condition for commercial adoption is compliance with standards of building operational performance.

Expected outcomes and impacts

This AEC Accelerator Challenge ideally attracts a range of pioneering business ventures in the areas of design, fabrication and materials for AEC that aim at deployment of novel and disruptive solutions building upon the latest deep-tech developments in these areas.

The focus will be on achieving a reduction in embodied rather than operational carbon emissions. Other impacts may include higher productivity, higher product quality, reduced material consumption and waste, improved construction logistic in the urban environment or increased safety.

Expected adjacent impacts of this AEC Accelerator Challenge are also to inspire an ambition for the AEC sector to create higher quality jobs in a more progressive and appealing business culture that is ready to deliver a transformation of the built environment in line with the objectives of the European Green Deal and the New European Bauhaus.

Indicative budget: EUR 65.0 million

IV.2.5 EIC Accelerator Challenge: Emerging semiconductor or quantum technology components

This Challenge contributes to the objectives of the Chips Act[83] by supporting the development of critical technologies where start-ups and SMEs with disruptive innovations have the potential to scale up and help ensure the future open strategic autonomy of the Union.

Specific conditions

Applications to this EIC Accelerator Challenge may request an investment component of above EUR 15 million in duly justified cases[84].

In order to protect the strategic interests of the Union and its Member States, the contract may set specific conditions and milestones if this is necessary to ensure that technologies of a strategic nature for open autonomy are not directly or indirectly controlled by third countries not associated to Horizon Europe or by legal entities of non-associated third countries.

Any technology under this Challenge must be developed in a robust manner, paying specific attention to safety, security and ethics considerations in future applications.

Indicative budget: EUR 100.0 million. At least 30% of this budget will be allocated to the Quantum technology components and at least 30% to the semiconductor chip development areas. The remainder will be flexibly allocated to either area in function of the successful submissions.

[83] European Chips Act | Shaping Europe's digital future (europa.eu)

[84] A request above EUR 15 million investment is allowed in duly justified cases (see Accelerator call text)

A. Quantum technology components

Background and scope

The focus of this Accelerator Challenge is on fostering innovation in the area of quantum information processing components. Europe is a global leader in research in quantum technologies. Translating this level of R&D excellence into market innovation is a strategic priority, but companies set up to do that mostly struggle to get the necessary funding to scale-up. Supporting European deep tech start-ups in the development of hardware components, including specific components for quantum technologies, is key for strengthening Europe's technological sovereignty and is critical for transitioning innovations from lab to market.

Quantum technologies represent a major paradigm shift of the way we develop devices at nanoscale. These novel technologies are expected to have significant effect on the entire European economy. Advancing innovation capabilities in the area of quantum technologies can increase the strategic innovation and engineering capacities of Europe, giving rise to a range of new products and business models. The latter will enable European companies to take a leading role in a market, which is expected to grow from EUR 1.7 billion in 2021 to EUR 89 billion by 2040 in an aggressive disruption scenario.

This strategic area is particularly focused on the development of emerging, fault-tolerant quantum computing hardware components (e.g. by using different types of qubits and a new methods for controlling them), quantum sensors that work in real environment, as well as quantum communication devices that can be deployed in a real environment for practical applications such as quantum repeaters, devices for quantum-based encryption etc. Innovation in any segment of the value chain for the development of quantum technology components is addressed.

Quantum computing (QC) has already attracted investments from large multinational companies and governmental research and innovation programmes. Yet, QC hardware still suffers from large error rates during computation. In addition, none of today's solutions (and even proposed solutions and those demonstrated on a small scale), come close to the need for a control system that scales to many thousands of qubits. Quantum sensors have a very wide range of applications and have already made significant improvements in recent years in both quality and fabrication methods. However, large number of them can only operate in tightly controlled environment such as laboratories or very specific testbeds.

Quantum communication is of crucial importance for ultra-secure communications and Europe needs to scale up the production of the underlying components and systems to deploy quantum-based infrastructures based on trusted European technology.

Specific objectives

The objective of this Challenge is to support ground-breaking innovations that have a high potential to develop:

- fault-tolerant quantum computing with:
  - improved performance;
  - significantly simplified QPU (Quantum Processing Units) integration with control electronics;
  - scalable control systems (scalable to tens of thousands of qubits, needed for meaningful practical applications);
- Quantum sensing components to function in real/harsh environment for various application areas, such as ecotoxicology, pharmaceuticals, biomedical, space, corrosion detection in power plants, gas/oil tanks, raw material detection, medical imaging, automotive and many more.
- Quantum communication devices that can be deployed in a real environment such as quantum repeaters, devices for quantum-based encryption etc.

Expected outcomes and impacts

This Challenge is expected to support the EU in taking a leading role in the development of cutting-edge quantum computing and quantum sensing and quantum communications that can be used in real environment and deployed in various areas.

In mid and long term, this Challenge is expected to expand the quantum capabilities of Europe, underpin its economic resilience and digital sovereignty. It should pave the way for Europe to be at the cutting-edge of quantum capabilities by 2030 as envisioned by the 2030 Digital Compass: the European way for the Digital Decade Policy Programme[85].

[85] Europe's Digital Decade: digital targets for 2030 | European Commission (europa.eu)

B. Semiconductor chip development

Background and scope

Semiconductor chips are the engine of technological progress, transforming every aspect of the way we live and work. Chips are also the key enablers of EU's digital and green transformation.

The recent chips shortage had a severe impact on key industrial sectors, exposing Europe's dependency on supply from other regions. Such reliance on imports jeopardises EU's industrial production, affecting European sovereignty. The semiconductor value chain is complex, but overall chip design is the stage with the highest value added. Further, the so–called fabless companies that focus on chip design invest the highest share of sales revenues in RandD, creating Intellectual Property that generates long-term income; hence they enjoyed in the last 10 years the highest growth in the industry (CAGR 15%). On the other side, designing chips involves high tool and IP licensing costs, long development cycles and very steep production expenditures, therefore dedicated patient capital is required for semiconductor fabless companies in their early stages.

Currently, only a few companies worldwide are capable of designing and manufacturing the most advanced chips at leading node sizes because of the skills and large investment required for design, R&D, scaling, and IP protection. At the same time demand for these chips in some major market segments, including artificial intelligence and machine learning is surging as they combine strong performance with lower power consumption. Because of the lack of deep-tech financing for long-term investments in high-risk, high-return ventures, innovative semiconductor start-ups in the EU struggle to get funding to scale up and overcome the so-called "valley of death".

Innovation in semiconductor chips can be delivered through the design of a wide range of integrated circuits and systems for digital information processing and communication, analog and mixed signal components for power control and conversion, RF communication, and sensing, as well as silicon photonics components. An important area of focus is in next-generation information processing systems, where relevant fields of application with fast expected growth in the coming years are: Artificial Intelligence, Edge Computing, IoT, 5G/6G communication. Particularly relevant are efforts to design chips at advanced nodes, delivering higher performance and efficiency, as well as chips employing novel semiconductor technologies and domain-specific architectures (e.g. accelerators), which can deliver groundbreaking performance improvements.

Supporting the expansion of design capabilities and the growth of fabless start-ups and SMEs in Europe is of critical importance for the competitiveness, resilience and sovereignty of the Union. Promoting Europe's chip design ecosystem could be a cost-efficient way to climb the semiconductor value chain, diversify EU economy and earn a strong position at the technological frontier.

Specific objectives

The aim of this Challenge is to support the design and development of innovative semiconductor components and intellectual property for analogue and digital integrated circuits and systems including memory, logic, optical components, and sensors, in relevant technology fields such as: Artificial Intelligence, edge computing, Internet of Things, electric and autonomous vehicles, 5G/6G communication, cybersecurity, health and wellness, environmental sustainability. The scope also includes innovative design approaches that address combination of different functionalities such as computing, RF, power, memory and sensing. Moreover, this Challenge should support advanced chips design in order to keep Europe in the front line of the semiconductor industry in the coming years as the industry thrives for higher performance and greater circuit integration.

The proposing entities should demonstrate ground-breaking innovation in the respective applications fields and high potential for commercial deployment in important EU industry sectors such as automotive, industry automation, information and communication, healthcare, aerospace, security, energy.

Expected outcomes and impacts

This Challenge is expected to support innovative semiconductor start-ups in bringing their innovations to higher level of maturity and closer to commercial deployment, addressing the funding gap that deep-tech companies in this space have been facing in the last couple of decades.

In the mid to long term, this Challenge is expected to foster the development of the semiconductor chip design ecosystem in Europe by increasing the number of innovative fabless start-ups and semiconductor IP companies in the EU, thereby contributing to the 2030 Digital Compass target of doubling EU's production of advanced sustainable chips and Europe's digital autonomy.

IV.2.6 EIC Accelerator Challenge: Novel technologies for resilient agriculture

Background and scope

EU food supply chain is considered a reliable source of a large variety of high-quality and safe foods. However, the food supply chain can be seriously affected by external factors such as global warming, biodiversity loss, pollution, loss of fertile soils, foreign dependencies and many inappropriate agricultural practices. This has been further exacerbated by the recent COVID pandemic and the war in Ukraine. All those factors could have potential consequences on Europe's crops production capacity in 2023.

Agriculture and food production are a complex system, which is very sensitive to even small negative perturbations if they appear in rapid succession along the whole value chain. At the heart of a resilient agriculture and food systems lies biodiversity, including in the soil microbiota. Microbiomes are essential in mediating and catalysing many processes while also acting as primary and secondary biomass producers. In the biosphere they intertwine and sustain several ecological relationships which are key for the One Health concept (the link between environmental, animal and human health). Healthy ecosystem and biodiversity support not only healthy soils, but a wide range of important functions needed for thriving agriculture, in particular pollination, air and water filtering. However, unsustainable agricultural practices, through the use of many widely spread and very efficient technologies and equipment for tillage, irrigation, crop protection and fertilisation, have contributed to reduction of this much needed biodiversity, resulting in more polluted and impoverished soils, increasing pressures over environment to avoid reduced crop yields and ultimately in a fragile food supply chain.

To address this, breakthrough innovations are needed, such as for example new environmentally friendly technologies in fertilisation, innovative crop protection strategies (including through plant microbiomes), diversification of crops and varieties in agricultural use and diversification of land use system locally, as well as innovative technologies for tillage and irrigation.

Fertilisation in particular is closely linked to carbon and nitrogen management. For example, innovations in livestock urine management could help produce ammonia without the use of fossil fuels, novel processes and technologies could improve the efficiency of sustainable fertilisation practices and technologies that could enable wider use of nitrogen fixation through microorganisms in the soil.

Specific objectives

In support of the EU Soil Mission[86] and the EU Green Deal,[87] Farm to Fork strategy,[88] Fit for 55[89] and REPowerEU[90] policy actions, the key goal of this Challenge is to develop solutions contributing to the development of a sustainable agricultural and food production system resilient to environmental and social disruptions. To achieve progress in this area a new generation of technologies, equipment and materials (such as but not limited to soil tillage, crop protection and harvesting machinery and equipment) is needed, based on principles of regenerative agriculture and supported by Industry 4.0 technologies and in line with the core principles of Industry 5.0, human-centricity, sustainability, and resilience.

The proposals should include groundbreaking innovations that will lead to a radical transformation beyond the state-of-the-art of the current fertilisation, crop protection, irrigation and soil management practices. From a food system point of view, they will take into account strategies for climate adaptation, and a life cycle approach. Consideration should be also given to possible effects of such innovations on the food supply chain. From an environment point of view it is expected they will help to ensure healthier and richer biodiversity and more resilient ecosystems.

If intervening in the food processing stage, applicants are encouraged to pay attention to reducing/replacing food additives with bio-preservation techniques and fast scalability of production.

Solutions should be easy to scale up and/or replicated in different environmental conditions.

The specific objectives of this Challenge are:

- Development and scaleup of interdisciplinary solutions for regenerative agriculture and soil health in the areas of
  - Sustainable fertilisation;
  - Crop protection under principles of Integrated Pest Management with a focus on mechanical/physical and biological measures;
  - Irrigation
  - Soil management, protection and restoration;
  - Crop and livestock management.

[86] Soil health and food (europa.eu)
[87] A European Green Deal | European Commission (europa.eu)
[88] Farm to Fork Strategy (europa.eu)
[89] Fit for 55 - The EU's plan for a green transition - Consilium (europa.eu)
[90] REPowerEU: affordable, secure and sustainable energy for Europe | European Commission (europa.eu)

- Novel processes, materials, equipment, management practises and microorganisms adapted to harsh environments, climate adaptation needs and resource scarcity, including diversification of crops, mixed farming systems, interseasonal cropping and technologies to increase crops adaptation to climate changes.

Expected outcomes and impacts

This Challenge aims to improve the resilience of the European food supply chain and security, notably by improving agricultural productivity and fostering environmentally sustainable technologies, all while regenerating and increasing soil health and ecosystem services. By aiming to valorise crop residues, this Challenge also aims to contribute to better carbon and nitrogen management practices, to mitigation of climate change and environmental challenges including biodiversity loss and pollution.

In doing so, the results arising from this Challenge will foster the EU technological autonomy and leadership via focused support of innovations in the areas of sustainable and resilient agricultural production, food security, biodiversity and environmental protection.

Indicative budget: EUR 65.0 million

IV.2.7 EIC Accelerator Challenge: Customer-driven, innovative space technologies and services

Background and scope

Increased mega-constellation launches, aging satellites, and fast track flight qualification of spacecrafts and payloads are taking place in the "NewSpace" industry. The number of dysfunctional satellites is increasing, with explosions in orbit due to left-over fuel and batteries on-board old spacecrafts, considered to be the biggest contributor to the space debris problem. Nowadays, satellites are built in such a way so they cannot be serviced or repaired in-space. Satellite owners, operators, and space agencies will need to find viable ways to inspect and protect satellites and extend their life-time.

This represents a challenge also for the EU Space infrastructure (e.g., Copernicus, Galileo etc.) by not being able to inspect, maintain, and service it and risking to lose strategic autonomy over EU space assets.

Customer driven innovative space technologies in various domains have become key for the competitiveness of the European space industry and, on the longer term, for European's ability to safely access and use space.

In particular, Europe should be able to inspect, protect, and service its satellites and, where necessary to move them from one orbit to another or to increase their lifetime. Developing in-orbit satellite servicing, active debris removal (ADR), in-space logistics, SSA services or unified space debris management services, including repair or recycling technologies for servicing spacecraft will contribute to strengthening of the EU strategic autonomy.

Specific objectives

The overall goal of this Challenge is to ensure Europe is able to service and protect its own Space infrastructure, avoiding the risk of losing its strategic autonomy, and enhance the competitiveness of its space industry by encouraging the emergence of innovative, interoperable, scalable, and autonomous "customer-driven" innovative space technologies and services.

In terms of technological developments, the specific objectives of this Challenge are:

- To have the means to inspect spacecraft in orbit, to augment satellite capabilities and resilience;
- To develop autonomous and in-space collision avoidance capabilities e.g., use of Artificial Intelligence (AI)/ Machine Learning (ML) for collision avoidance manoeuvres, space debris positioning data and develop in-space mobility propulsion capabilities;
- To further mature assembly and manufacturing in orbit with different applications (e.g., in-orbit, cis-lunar exploration, Earth observation, space debris inspection, space situational awareness, etc.);
- To collect space debris with a view for recycling, recovering and transforming purposes (e.g., microgravity platforms);
- To design and construct a R&I low Earth orbit unmanned platform assembled in orbit and to host in-orbit microgravity experiments or collect/re-use space debris considering and make use of a sustainable, modular concept for the platform and its operation;
- To scale up disruptive innovations for space situational awareness (SSA), in-space logistics, Earth observation, navigation, satellite communications (SATCOM), and others.

Expected outcomes and impacts

This Challenge aims at developing:

- an European servicing and re-use/recycling capability for servicing European space infrastructure, while contributing to the management and reduction of space debris;
- timely and cost-effective Space Traffic Management services for on-time collision avoidance manoeuvres;
- the re-use, refurbish or recycling of a spacecraft components or launchers upper stages;
- scientific and technological solutions for in-orbit services and re-use/refurbishing and recycling of old spacecraft (e.g. satellites, rockets upper stages or critical raw materials etc.);
- Innovative propulsion solutions for in-space mobility of spacecraft;
- Innovative technologies for space transportation, Earth observation, navigation, satellite communications, space science, space situational awareness.

It is expected that EU companies generate new contracts from new markets, together with significant cost-savings for satellite owners. Affordable and cost-effective on orbit satellite servicing technologies will first benefit the EU space economy, through an increased competitiveness of EU space industry. The boom of an innovative in-space servicing (IISS) industry will result in much broader economic and market spill over effects.

Specific conditions

Applications to this EIC Accelerator Challenge may request an investment component of above EUR 15 million in duly justified cases.[91]

In order to protect the strategic interests of the Union and its Member States, the contract may set specific conditions and milestones if this is necessary to ensure that technologies of a strategic nature for open autonomy are not directly or indirectly controlled by third countries not associated to Horizon Europe or by legal entities of non-associated third countries.

Where relevant, companies supported under this Challenge will have the opportunity to benefit from the in-orbit demonstration and validation services supported by Horizon Europe, Cluster 4 Space.

Indicative budget: EUR 65.0 million

[91] A request above EUR 15 million investment is allowed in duly justified cases (see Accelerator call text).

V. EIC Business Acceleration Services

All EIC Awardees (from the EIC Accelerator, EIC Transition, EIC Pathfinder), Seal of Excellence holders, applicants to the EIC Accelerator who have succeeded at the short application stage and Women TechEU awardees have access to EIC Business Acceleration Services (BAS). These services are procured from external contractors and consist mainly of business coaching, business advice, networking opportunities to expand the client base and to find co-investors, and access to testing/scaleup facilities. The EIC BAS services are also part of the tools available to EIC Programme Managers, EIC Tech to Market Advisers and EIC Project Officers to proactively manage the EIC portfolios.

From 2023, the EIC BAS services will be expanded through **EIC Ecosystem Partners** (see Glossary). EIC BAS services provided by EIC Ecosystem Partners includes access to existing incubation and acceleration programmes as well as services specifically designed in collaboration with EIC. These services are offered to EIC Awardees free of charge or on favorable conditions. This approach allows EIC Awardees to access the best services available across Europe while enabling EIC Ecosystem Partners to provide their services at European level.

The EIC will also continue to directly manage a core set of business acceleration services which provide a clear added value, which include:

- **Coaching** for EIC Accelerator applicants, EIC Awardees and EIC Seal of Excellence recipients when a suitable alternative service cannot be provided by EIC Ecosystem Partners.
- Support to attend European and international **business trade fairs;**
- Support to pitch EIC-funded innovations to corporates (**EIC Corporate Days**) and public/private innovation procurers (**EIC Procurers Days**);
- Training and support for start-ups and SMEs to compete in **public innovation procurement** bids and funding to test products for innovation procurers;
- **Tech2Market Business Acceleration Services** - Dedicated Business and Innovation Acceleration Services to Pathfinder and Transition beneficiaries supporting transition from lab to market. It will give access to venture building activities helping entrepreneurial researchers / proto-entrepreneurs to acquire critical skills and connect with partners and service providers supporting in business and venture development;
- A **platform** for EIC Accelerator companies in receipt of equity investment **to find co-investors;**

- **The Women Leadership Programme** to provide business coaching and mentoring to women-led EIC companies (see Glossary), women researchers from EIC Pathfinder and EIC Transition aspiring for leadership position in business, and WomenTech.EU awardees ; Support in assessing and reducing **greenhouse gas emissions**, for instance through the provision of a carbon-footprint measurement tool and specific trainings on the subject.

Additionally, the EIC ScaleUp 100 action funded under the EIC WP 2022 and due to launch in 2023 will accelerate the scaleup of promising EIC companies.

The services provided by the EIC Ecosystem Partners as well as all other EIC BAS services are listed on and accessed through the EIC Community platform.[92] The EIC Community platform is a virtual meeting place, where EIC Awardees can connect with each other and with other innovators, entrepreneurs, researchers, investors, corporates and procurers. It provides matching and collaboration features. The EIC Community platform is planned to be linked with the future Innospace Platform, where it will be connected to the EIC Marketplace to bring together information on (preliminary) findings and results generated by EIC projects with potential partners, investors and entrepreneurs.

EIC BAS services are funded through multi-year procurement contracts, some of which were financed through previous Work Programmes. The following EIC BAS services will be financed in 2023:

V.1 Access to services from EIC Ecosystem Partners

The EIC seeks partnerships with EIC Ecosystem Partners (see Glossary). The goal is to provide all EIC Awardees with access to existing or bespoke services for the incubation, acceleration, growth and scale up of innovative tech companies, such as for instance: pitching and networking events, specialised trainings (e.g. on intellectual property protection, technology due diligence etc.), innovation boot camps and summer schools, support to validate/accelerate a technology, mentorship, business coaching, co-investment opportunities, data mining or mapping services e.g. of tech infrastructures, piloting plants, testbeds etc.

This action will fund the running of an open call for applications to become EIC Ecosystem Partners, the development of the service offers with each Partner, the creation of a services catalogue for EIC Awardees, the co-organisation of joint networking activities including pitching and training sessions, the matching of EIC

[92] The EIC will also seek operational synergies with Enterprise Europe Network, national and regional clusters, the European IP Helpdesk, Start-up Europe, EIT KICs, national innovation agencies and the National Contact Points networks.

Awardees with the right service/Partner offer, the provision of services by the EIC Ecosystem Partners, an IT tool to monitor the delivery of services to EIC Awardees (via Innospace Platform) as well as the communication, quality feedback loop and impact analysis of this action.

The open call for applications for organisations to become EIC Ecosystem Service Providers will have regular cut-off dates which will be published on the EIC website. If there is insufficient demand for the services provided by an EIC Ecosystem Partner or the service offering receives consistently poor quality feedback, then the Ecosystem Partner or the concerned services may be removed from the catalogue.

The EIC will request a structured feedback report after the services have been provided, to ensure these are of the highest quality.

EIC Ecosystem Partners will also include the Knowledge and Innovation Communities of the European Institute of Innovation and Technology (EIT KICs).

Type of action: Procurement.

Indicative budget: EUR 8.5 million, of which approximately EUR 1.5 million will be allocated to services provided by EIT KICs. The final amount will depend on the demand for services from EIC Awardees.

Indicative timetable: from Q2 2023

V.2 Access to EIC business coaches (direct EIC services)

The EIC will continue to directly provide three days of remote coaching to EIC Accelerator applicants invited to submit a full proposal.[93]

EIC Awardees can have access to business coaching via a suitable EIC Ecosystem Partner, however if such partner cannot be found business coaching can be provided directly by the EIC. In either case the EIC will request a structured coaching report after the coaching has been provided, to ensure the services are of the highest quality.

Business coaching focuses on providing insights on business development and guidance to improve business performance. Coaching topics cover the entire entrepreneurial and innovation endeavour from challenging the value proposition and

[93] Applicants are encouraged to use the EIC coaching services. It is nevertheless up to the applicants to decide if and when to use the coaching services.

business model, IP management, data protection, improving strategy and investor business case, building the team and leadership, to international expansion.

Three days of remote coaching[94] are offered to all EIC Awardees.[95] Additional coaching days for EIC Awardees (in principle up to 12 days) will depend on the project review and input from EIC Programme Managers. When duly justified for exceptional cases, (e.g., scaling up), the number of coaching days could be extended. Coaching support can exceptionally be offered to other EIC ecosystem beneficiaries and related Programmes.

The EIC coaching services are provided by highly qualified specialised business coaches. The coaches register their profile and expertise in the Commission's corporate database, through a single Call for Expression of interest published for experts across all EU programmes, as well as on the EIC Coach Platform. The selection of the business coaches is made following a continuously open call in accordance with Article 237 of the Financial Regulation, and new coaches are selected at the beginning of every year. Applicants must have:

- at least five years of professional experience in managerial positions with responsibilities in developing business innovation; and
- at least five years of coaching experience supporting new business development within a corporate's departments or with start-ups. The fields of new business development includes technical expertise as well as practical involvement on go-to-market processes, building/acquisition of strategic partnerships and organisational and financial development.

EIC business coaches have the task to support the recipients of EIC BAS depending on their needs, assess with them improvement opportunities and assist them in their process of learning and solving complex business development issues. As highly qualified specialised business coaches, their remuneration will be proportionate to their high-level strategic support, and it will closely mirror the international level of remuneration for experts performing tasks of similar nature. In this respect, EIC business coaches will receive EUR 1 000 per day of coaching (corresponding to EUR 500 per half day), which is considered to be proportionate to the specific services that EIC business coaches will provide, which are more complex than the standard tasks of experts evaluators.

[94] Coaching involving travel may take place in duly justified cases when the physical presence of the coach is expected to bring significantly better results, mainly for coaching to EIC awardees. Coaching 2023 budget may also be used for the Horizon 2020 EIC legacy projects

[95] EIC Accelerator, EIC Transition and EIC Pathfinder awardees, Seal of Excellence companies and Women Leadership programme participants

Type of action: Expert contracts action.

Indicative budget: EUR 3 million from 2023 budget

Indicative timetable: from Q1 2023

V.3 Participation in business trade fairs

To support the commercialisation strategy of selected EIC funded companies in European and foreign markets, and to strengthen the EU innovation brand around the world, this action will support selected EIC-funded companies to attend European and international business trade fairs. The successful contractor will provide services such as securing an exhibition space in relevant fairs within an 'EIC Pavilion', market training sessions for the participating companies, organisation of business meetings at the fair, company promotion, the organisation of side events and sessions at the fair.

Type of action: Public Procurement

Indicative budget: EUR 7 million

Indicative timetable: from Q1 2023

V.4 EIC Corporate Partnership programme

The objective of this action is to establish and grow business relations between EIC-funded Start-ups/SMEs and large companies. The successful contractor will support the organisation of specific matchmaking/pitching events ('EIC Corporate Days'), bringing together EIC companies and either a single large company or a network of large companies. This action will also support other types of collaborations among EIC Awardees and large companies, such as venture client model activities and structured pilots and trials with corporates across different sectors.

Type of action: Public Procurement

Indicative budget: EUR 2.5 million

Indicative timetable: from Q1 2023

V.5 EIC Community platform and activities

The objective of this action is to provide content, maintain and improve the functionalities and services of the EIC Community and its online platform, including the EIC Challenge Platform module. The successful contractor will provide services such as

- management, moderation, curation of information and data of the online EIC Community platform;
- maintenance and improvement of the entire EIC Community platform and of the GHG emissions measurement tool,
- workshops and advice on GHG emissions reductions.
- organisation of online and offline events for the EIC Community, including for the Women Leadership Programme

Type of action: Procurement

Indicative budget: EUR 2 million from 2023 budget

Indicative timetable: from Q1 2023

V.6 Support to test EIC innovations for public and private procurers

Background and scope

Finding first customers is one of the main barriers that is hampering access to market and commercialisation of innovative solutions developed by innovative SMEs. Public sector buyers that hold a significant purchasing power can help increase the uptake of innovations in Europe by acting as early adopters, helping to validate innovative solutions all while innovating their service offer through breakthrough technologies.
Procuring innovation is characterised by an inherent risk, both for the procurers who lack quality assurance of newly developed solutions, and for the innovators who need to invest scarce resources in the necessary customisation and pilot testing. To decrease these risks and to increase the use of innovation procurement in Europe, this action aims to support the pilot testing or proof-of-concept demonstration of EIC supported innovations for potential public and private procurement customers.

The winner of this call (hereafter 'project beneficiary') can be a single legal entity or a consortium of legal entities. The project beneficiary will receive funding to, in turn, allocate grants to EIC Awardees selected through open, competitive calls managed by the project beneficiary to test innovative solutions developed by EIC Awardees in the services or premises of committed buyers that are aiming at procuring innovation. Buyers include contracting authorities as defined under the EU Public Procurement

Directives (public buyers) as well as private entities that engage in purchase contracts (private buyers).

The maximum size of the grants allocated to EIC Awardees by the project beneficiary using the budget contribution from this action is EUR 60000. The buyers do not receive any financial contribution but are required to provide at least in-kind commitments as needed for the innovation to be properly tested and assessed (including access to infrastructures and facilities, data, personnel, etc.). The in-kind commitment of the buyer (s) must also include the preparation of a validation report (with references to the innovation itself but also to the innovator) which can be used by the EIC awardee and made available to other interested procurement bodies or relevant stakeholders.

The project beneficiary must allocate the grants to EIC Awardees following a competitive, transparent and fair procedure based on equal treatment and non-conflict of interest. Two types of calls should be implemented:

1. Calls without any predefined thematic area where an EIC Awardee must apply with the clear commitment of a pre-identified buyer.
2. Calls with predefined challenges where the EIC Awardee must apply with a solution to the predefined challenge(s). In this case, the project beneficiary must organise an expression of interest exercise prior to the call, to identify challenges which have the commitment of at least four separate and independent buyers. The EIC Awardees selected through the call will then be matched with the pre-committed buyers to implement the testing of the innovation.

Specific objectives of this action

This action has two main objectives:

1. to enable selected EIC Awardees to prove the concept or test, through structured pilots, their innovative solutions in the services or premises of interested buyers that are aiming at procuring innovation;
2. to increase the purchase of innovative solutions from public and private procurers or buyers across Europe. Synergies with networks, associations etc. of public and private buyers at European, national and regional levels, as well as synergies with EU Programmes and initiatives (e.g. the Climate Neutral and Smart Cities Horizon Europe Mission) should be sought. In addition, synergies with other relevant activities within the EIC (including but not limited to corporates) should be ensured.

A duration of up to 2 - 3 years would enable the project to achieve the desired objectives.

Expected outcomes and impacts

This action should:

- increase business opportunities for EIC Awardees by supporting them to prove the concept or pilot test their innovative solutions in the services of public or private buyers.
- result in innovative solutions tested in the services or environments of potential buyers, in the increased uptake of innovative solutions by public and private buyers through the use of innovation procurement,
- enable the scaling up of EIC companies through the creation of business opportunities with public and private buyers, in the improvement of the products and services offered by public and private buyers in Europe through the uptake of innovations of the EIC Awardees.

Specific additional conditions

The selection of the EIC Awardees as well as the management of the financial support to third parties should be ensured by the project beneficiary exclusively. The applicants must have previous experience in the activities envisaged by the scope of this action, and in particular, in addressing the needs of procurers as well as in the managing and monitoring of proofs-of-concept and pilot tests.

The project beneficiary will select and support EIC Awardees through grants between 20 000 and 60 000 EUR. The actual size of these grants will depend on the complexity of the pilot or the proof-of-concept. For each individual grant, the commitment of buyers to test a solution will be a precondition for EIC Awardees to receive the funding. The project beneficiary must allocate at least 75% of the total proposed budget to financial support to third parties (the EIC Awardees). The project beneficiary will ensure that at least 40% of the committed buyers are public buyers.

Applicants must propose a methodology for the selection of the participating EIC Awardees, for ensuring the participation of committed public or private buyers in the program (e.g. through MoUs etc.), for the finding of buyers with identified challenges that are committed to take part, and for the follow up and monitoring of financed pilot tests, including impact monitoring. Applicants must put in place proper communication and publicity of the action.

The selection of the EIC Awardees must be done through open calls following a competitive, transparent and fair procedure that will be based on equal treatment and non-conflict of interest.

Type of action: Coordination and Support Action (CSA). This action will be evaluated partially by representatives of Union institutions or bodies, according to Article 29 paragraph 1 of Horizon Europe Regulation.

Number of projects expected to be funded: 1

Indicative call opening: 01 June 2023

Deadline for applications: 7 November 2023 at 17h00 Brussels local time

Indicative budget: The Commission considers that proposals requesting a contribution from the EU in the order of EUR 3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts if duly justified.

For general award criteria see Annex 2.

VI. EIC Prizes

VI.1 The European Prize for Women Innovators

Objectives and scope

The European Prize for Women Innovators celebrates the women entrepreneurs behind Europe's game-changing innovations, so that they may inspire other women and girls to follow in their footsteps.

The Prize is awarded every year to women from across the EU and countries associated to Horizon Europe, who have transformed their ideas into disruptive innovations to benefit people and the planet.

The Prize is organised by the Agency and the winners are chosen by an independent expert jury.

The 2023-24 European Prize for Women Innovators is expected to be organised together with the EIT Prize for women innovators.

There are two prize categories funded under this Work Programme: Women Innovators and Rising Innovators. In the first category, three prizes of EUR 100 000, EUR 70 000 and EUR 50 000 are awarded to the three highest-ranked applications. In the second category, three prizes of EUR 50 000, EUR 30 000 and EUR 20 000 are awarded to the three highest-ranked applications from promising 'Rising Innovators' under the age of 35. The EIT woman innovators' prize will be funded and managed by the EIT following the same broad approach and the same timetable.

Eligibility criteria

All applicants must comply with the following eligibility criteria to participate:

1. The applicant must be a woman;[96]
2. The applicant must be legally established[97] in an EU Member State (including overseas countries and territories, OCTs) or a country associated to Horizon Europe;

[96] This Prize celebrates women in all their diversity. The word 'woman' equates to a cis woman, or a transgender woman who is legally defined as a woman.

[97] A person is legally established in a given country, if she is recognised as a resident under national law in that country, and proof of such recognition can be provided upon request.

3. The applicant must be the founder or co-founder[98] of the company or organisation;
4. The company or organisation must be established in an EU Member State (including overseas countries and territories, OCTs) or a country associated to Horizon Europe, and registered or incorporated[99] at least two years before the call year[100];
5. Applicants who have already received an EU or Euratom prize cannot receive a second prize for the same activities.

In addition to the above, those applying for the Rising Innovators category must be aged under 35 at the start of the call year.[101] There is no age limit to apply for the Women Innovators category, though applicants eligible for both prize categories can only apply to one.

Applicants are expected to provide proof of eligibility upon request.

Applicants must support their written application with an inspiring video message about themselves and their achievements, lasting no more than 90 seconds.

Award criteria

The prize is awarded to the applicants who in the opinion of the jury best address the following criteria:

1. **Breakthrough innovation** – the company or organisation founded or co-founded by the applicant is pioneering a breakthrough and disruptive innovation within the EU or countries associated to Horizon Europe.
2. **Impact** – this innovation addresses a real need or challenge, with significant benefits for people and/or the planet. The applicant will demonstrate how the organisation's current performance and growth is driving this positive impact.
3. **Inspiration** – the applicant is an inspiring leader, who has played a pivotal role in the success of the company or organisation. The applicant is a role model who inspires and empowers other women and girls.

[98] A co-founder is somebody who has started the company (i.e. "founded" the company) with at least one other person, and proof of this can be provided upon request.
[99] The company or organisation is formed and registered with the appropriate statutory authority of the country as a 'company or corporation', and proof can be provided upon request.
[100] The company must be registered or incorporated before 1 January 2021.
[101] Those applying for the Rising Innovator prize must be born on or after 1 January 1988.

The jury will review and score all eligible applications, and invite the shortlisted applicants to an interview to defend their application. This interview may take place remotely.

Further details on the evaluation and award criteria will be specified in the rules for this contest published at the launch of the contest. For the common 'Rules of Contest for Prizes' please see the Funding and Tender Opportunities Portal.

Expected results

The prize will boost public awareness of the potential, importance and contribution of women to the EU innovation ecosystem and create strong role models, inspiring more women to become innovators themselves.

Type of Action: **Recognition Prize**

Indicative Timetable:

Stages	Indicative period
Opening of the contest	Q2 2023
Deadline for submission of proposals	Q3 2023
Award of the prize	Q1 2024

Indicative Budget:

Category	Amount
'Women Innovators' category	
1st prize	EUR 100 000
2nd prize	EUR 70 000
3rd prize	EUR 50 000
'Rising Innovators' category	
1st prize	EUR 50 000
2nd prize	EUR 30 000
3rd prize	EUR 20 000

VI.2 The European Capital of Innovation Awards (iCapital)

Cities are faced with most severe societal and sustainability challenges but do also have the means to develop and apply effective innovative solutions. They are the place where ideas, people, public and private actors meet and engage to improve the quality of life of their citizens. They are the natural playground where breakthrough innovations flourish and nourish. They provide ground to experiment new technologies and products in a real environment, their interaction with people and their added value.

Objectives and Scope

The traditional city innovation ecosystem is opening up to new models of innovation engaging citizens. An increasing number of cities are acting as test beds for innovation and run people-driven initiatives to find solutions to societal challenges.

The public domain is particularly challenged with finding effective ways to ensure the mainstreaming of these practices into the ordinary urban development process. Successful practices are particularly crucial to enhance the city's capacity to attract new resources, funds and talents to stimulate the growth of breakthrough innovations. Moreover, collaboration and strengthening synergies among innovation ecosystems boost cities' development and resilience to tackle urban challenges.

For this reason, the European Capital of Innovation Awards will recognize the cities' role as catalysers of the local innovation ecosystem and will stimulate new activities aimed at boosting game-changing innovation.

Categories

In 2023, the European Capital of Innovation Awards will feature two categories. The first one, the **European Capital of Innovation category**, would include cities which have a population of minimum 250 000 inhabitants and, based on the cumulative criteria set out below, would reward the winner (ranked 1st) with EUR 1 million and two runners-up (ranked 2nd and 3rd) with EUR 100 000 each one.

The second one, the **European Rising Innovative City category**, would include towns and cities with a population of 50 000 and up to 249 999 inhabitants; and, based on the cumulative criteria set out below, would reward the winner (ranked 1st) with EUR 500 000 and the two runners-up (ranked 2nd and 3rd) with EUR 50 000 each one.

Each application has to contain a specific endorsement to apply signed by the city Mayor (or the equivalent highest political representative).

Eligibility criteria

1. The candidate cities must be located in one of the Member States or Associated Countries to Horizon Europe.
2. For the category of European Capital of Innovation, the candidate city must have a minimum population of 250 000 inhabitants. In countries where there are no such cities, the city coming closest to 250 000 inhabitants is eligible to apply for the European Capital of Innovation category, provided that it has a minimum population of 50 000 inhabitants and that the city did not apply for the European Rising Innovative City category. The candidate cities for the European Rising Innovative City category must have a population of 50 000 and up to 249,999 inhabitants.
3. Winners of former European Capital of Innovation Awards editions, as well as runners-up of the edition 2022 are not eligible. This does not apply to previous finalist cities.
4. Applicants that have already received an EU or Euratom prize cannot receive a second prize for the same activities.

Award criteria

The award is launched and managed by the Agency. For this yearly competition, six prizes will be awarded after closure of the contest to the applicants who, in the opinion of the jury, best address the following cumulative criteria:

1. **Experimenting** – innovative concepts, processes, tools, and governance models proving the city's commitment to act as a test-bed for innovative practices, while ensuring the mainstreaming of these practices into the ordinary urban development process. In this criterion, among others, the applicant should consider answering these questions: Why are these initiatives and/or concepts perceived as new? In which sense are they different to others? What was the city's role in these innovative concepts and/or models? What impact did they have in the city and ecosystem' stakeholders?
2. **Escalating** – accelerating the growth of highly innovative start-ups and SMEs by establishing innovation friendly legal framework, creating an environment that stimulates growth, private and public investments, resources, diversity and talents; and driving innovation demand through efficient innovation public procurement. In this criterion, among others, the applicant should consider providing information about concrete actions taken to pursue the growth of highly innovative start-ups and SMEs, as well as their quantitative and qualitative implications and/or impact about actions to promote the use of innovation

procurement, or about actions aimed to promote investments and growth within the city. The applicant is expected to provide details on concrete results of the showcased initiatives.

3. **Ecosystem building** – unlocking cities potential as local innovation ecosystem facilitators by fostering synergies among different innovation ecosystem players, from public, industry, start-ups, civil society, citizens to academia, to contribute to the development of an innovation ecosystem within the city. In this criterion, among others, the applicant should consider providing information about the role of the city on boosting the city's innovation ecosystem: e.g. is the city a key actor in these interactions? The applicant is expected to provide details on concrete results of the showcased initiatives.
4. **Expanding** – acting as a role model for other cities by supporting the dissemination and replication of tested solutions that boost the local innovation ecosystem; by promoting mutual learning, knowledge transfer and capacity building; and by enhancing cooperation and synergies between cities that are front-runners in driving the local innovation ecosystem, and those that are still exploring and testing their role as innovation enablers. In this criterion, among others, the applicant should consider answering to the following questions: e.g. What are the activities and initiatives for which the city can be considered a role model for others? How is the city sharing its knowledge with other cities? Is the city cooperating with other cities in the areas of this competition? The applicant is expected to provide details on concrete results of the showcased initiatives.
5. **City innovative vision** – applicants should demonstrate their long-term strategic vision/plan, highlighting the innovative initiatives that have positively contributed to the transformation of the city and which will further support the development of a sustainable and resilient innovation ecosystem ensuring the green and digital transition. In this criterion, among others, the applicant should consider answering to these questions: e.g. what was the "point of departure" of the city and what has been achieved by now? What does the city want to achieve, and which are the tangible actions already taken or put in place to get to those objectives? The applicant is expected to provide details on concrete results of the showcased initiatives. Moreover, the applicant is invited to provide information on how all showcased activities follow the innovative vision/strategy.

The jury will review and score eligible applications, and invite the shortlisted applicants to a hearing in front of the jury members to defend their application. This hearing may take place remotely.

Further details on the evaluation process and award criteria, as well as promotional activities will be specified in the rules for this contest published at the launch of the yearly contest. For the common rules of contest for prizes, please see the Funding and Opportunities Portal.

Expected results

A European prize to the most innovative cities ecosystems. The award will raise the profile of the cities that have developed and implemented innovative policies; established frameworks that boost breakthrough innovation; enhanced the city attractiveness towards investors, industry, enterprises and talents; helped to open up connections and strengthen links with other cities, promoting the replication of best practices in the innovation field; enhanced citizens' involvement in the decision-making process; and supported cities resilience.

Type of Action: Recognition Prize

Indicative budget: the following 2023 budget will be allocated as follows:

European Capital of Innovation winner	**EUR 1 000 000**
European Capital of Innovation 1st runner-up	EUR 100 000
European Capital of Innovation 2nd runner-up	EUR 100 000
European Rising Innovative City winner	**EUR 500 000**
European Rising Innovative City 1st runner-up	50 000
European Rising Innovative City 2nd runner-up	50 000

Indicative timetable of contest(s)

Stages	Date and time or indicative period
Opening of the contest	Q1 or Q2 2023
Deadline for submission of application	Q2 or Q3 2023
Award of the prize	Q4 2023

VI.3 The European Innovation Procurement Awards

Objectives and scope

Innovation procurement boosts the process of transforming research results and ideas into innovative solutions. It represents an untapped potential to stimulate the demand for innovation. Moreover, it appears to have a positive impact on private spending on research and innovation activities and innovation commercialisation success.

By putting in place dedicated strategies aimed to lift and enhance the use of innovation procurement, the public and private sectors can provide state-of-the-art services and goods to the society and, at the same time, offer new growth and commercialisation opportunities for suppliers of disruptive solutions, particularly start-ups and SMEs.

The new European Innovation Agenda[102] highlights the importance of innovation procurement for the modernisation of the public sector but also for securing Europe's strategic autonomy and strengthening the European industrial competitiveness globally.

The recent circumstances in Europe do not only put forward the need for more circular and source efficient economy but also highlight the urgency to transform the European energy system: ending Europe's dependence on fossil fuels, and tackling the climate crisis. In this sense the European Union, as reflected among others in the European Green Deal[103] or REPowerEU Plan,[104] has embarked on a clean energy transition based on an efficient and sustainable use of energy.

Dedicated actions at all levels, from local to European, are essential to secure Europe's strategic autonomy in the energy sector and to tackle the climate crisis. This includes – among others - actions for renewable energy, energy efficiency, fighting energy poverty, energy solidarity, security of energy supply and/or competitiveness, among others.

The European Innovation Procurement Awards 2023-2024 aim to recognise public and private buyers, natural persons and those legal entities supporting these practices across Europe in their efforts to promote and stimulate both procurement of innovative solutions and the innovative ways the solutions are procured.

[102] A Communication from the Commission on a new European innovation agenda adopted on 5.07.2022 (COM(2022)332 final)
[103] A Communication from the Commission on the Green Deal adopted on 11.12.2019 (COM(2019) 640 final) setting the COM policy objectives
[104] A Communication from the Commission on the REPowerEU Plan adopted on 18.05.2022 (COM(2022) 230 final).

The Awards also aim to demonstrate how innovation procurement positively transforms the economy by not only creating new and sustainable markets, but also by tackling societal challenges such as green energy transition.

These Awards complement other EIC initiatives aimed at supporting and fostering innovation procurement in the European Union.

Categories

In 2023, the European Innovation Procurement Awards will feature the following two categories:

- **Innovation procurement initiative category:** to reward actions, and mid/long-term strategies and action plans that trigger different innovation procurements and sustainable solution and practices.
- **Facing societal challenges category: - 'green energy transition',** to reward those innovative procurement practices aimed to support the green energy transition.

Each category would reward the winner with EUR 75 000 (1st ranked) and one runner-up (ranked 2nd) with EUR 50 000, and one runner-up (ranked 3rd) with EUR 25 000.

Eligibility criteria

- Eligible applicants are any public and/or private procurer, individuals/natural persons and/or legal entities supporting those practices established in one of the Member States (including overseas countries and territories, OCTs) or Associated Countries to Horizon Europe;
- The awarded procurement practice must have taken place in a Member State (including overseas countries and territories, OCTs) or in an Associated Country to Horizon Europe;
- The awarded procurement practice must relate to completed or ongoing initiatives started after 1 January 2018. In the case of ongoing activities, only work completed by the submission deadline will be considered for the prize (Applicants will be required to prove the starting date of the practice by providing supporting documents);
- Applicants can only apply to one of the two categories for the same set of activities;
- Winners of former European Innovation Procurement Awards editions, as well as runners-up of the 2022 edition are not eligible;
- Applicants that have already received an EU or Euratom prize cannot receive a second prize for the same activities.

Award criteria

The award is launched and managed by the Agency. The prize will be awarded after closure of the yearly contest to the applicants who, on the opinion of the jury, best address the following cumulative criteria:

1. **Transformation** – stimulating the conversion of procurement practices towards innovation procurement with the aim to ensure a sustainable and inclusive growth. In this criterion, the applicant should bear in mind that this conversion refers to the shift into (a) buying the process of innovation (research and development services); (b) buying the outcomes of innovation; or (c) the establishment of innovation procurement friendly frameworks which include tools to measure results of support actions.
2. **Uptake** – the innovative procurement practice is replicable and scalable, and therefore, contributes to providing, more efficient and effective solutions. In this criterion, among others, the applicant should provide information (KPIs) about how the practice is replicable and scalable, the number of countries, entities and/or sectors where the solution has been implemented and/or replicated; or about how it has provided more efficient and effective solutions.
3. **Collaboration** – demonstrated co-operation linked to the innovation procurement practice. Special attention should be paid to the establishment of synergies, to the promotion of best practices, to the support to capacity building and skill development, and to the efforts of knowledge sharing between stakeholders within the different territories, especially among those at different state of maturity in innovation procurement practices. In this criterion, among others, the applicant should provide information (KPIs) about the number of partners (including start-ups, universities, academics, public and private organisations) involved in this collaboration; publications; conferences and events organised/attended to share knowledge, actions implemented to foster collaboration; or about the ratio of engagement and influence within the innovation ecosystem.
4. **Societal impact** – practices with a demonstrated positive quantitative and qualitative impact on society, with special emphasis to achieving the green deal and digital transformation priorities. In this criterion, among others, the applicant should provide information (KPIs) about the number of purchased solutions and/or projects implemented that contribute to achieving green and digital transitions; or about concrete positive transformations in the ecosystem.

The jury will review and score eligible applications and will invite the shortlisted applicants to a hearing in front of the jury members to defend their application. This hearing may take place remotely.

Further details on the evaluation process and award criteria, as well as promotional activities, will be specified in the rules for this contest published at the launch of the yearly contest. For the common rules of contest for prizes, please see the Funding and Tender Opportunities Portal.

Expected results

The awards aim to:

- Stimulate the innovation procurement uptake;
- Acknowledge and support the efforts done by procurers, and legal entities supporting them, to deliver better services and/or to bring products to the market in an innovative way; and
- Build a diverse European community of public and private buyers to share, work together and inspire each other in the design of innovative procurement processes, and particularly in the delivery of public services.

Indicative timetable of the contest:

Stages	Date and time or indicative period
Opening of the contest	Q1 - Q2 2023
Deadline for submission of applications	Q2 - Q3 2023
Award of the prize	Q4 2023 or Q1 2024

Type of Action: Recognition prize

Indicative budget: the following 2023 budget will be allocated as follows:

Innovation procurement initiative award winner	**EUR 75 000**
Innovation procurement strategy initiative 1st runner up	EUR 50 000
Innovation procurement initiative 2nd runner up	EUR 25 000
Facing societal challenges category winner	**EUR 75 000**

Facing societal challenges 1st runner up	EUR 50 000
Facing societal challenges 2nd runner up	EUR 25 000

VI.4 The European Social Innovation Competition 2023

The European Social Innovation Competition aims at stimulating the potential of social innovation to provide solutions to societal challenges that we face and to foster sustainable and inclusive growth in Europe. It will directly support ideas best illustrating this rationale. It will engage people, businesses and start-ups in a large range of sectors, as well as universities, engineering schools and civil society organisations thereby creating new connections, sources of sustainable growth and meaningful job opportunities.

This competition is launched and managed by the Agency.

Objectives and Scope

The European Social Innovation Competition 2023 will focus on 'Fighting energy poverty' – Repower EU.

With nearly 34 million Europeans unable to afford keeping their home adequately warm, tackling energy poverty is an urgent task.[105] Energy poverty results from a combination of low income, a high share of available income spent on energy and from poor energy efficiency, especially in buildings. It notably encompasses the "inability to keep homes adequately warm" and covers situations of economic difficulties (e.g. the incapacity to pay the energy bills, insulation problems, or lack of access to materials that keep the household warm in winter or fresh in summer).

In most cases, energy poverty generates serious implications for the health, wellbeing, social inclusion and quality of life of affected citizens. Taking up the challenge of fighting energy poverty can significantly improve the lives of vulnerable consumers and benefit EU societies at large.

Renovation of existing building stock aiming to increase its energy efficiency illustrates this "multiple benefits" approach as benefits of renovation exceed the energy savings benefits. This is especially the case when it comes to inclusion and the need to involve people in renovation projects through social innovative alternatives.

[105] COM(2020) 662 final of 14.10.2020 - A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives

Energy poverty also contributes to the deterioration of the competitive position of small and micro enterprises and to the worsening of their quality of service and the standard of their employees' living and working conditions.

Furthermore, geopolitical situations of instability at global level generate increases in energy and raw materials prices which in turn has an impact on households, citizens but also small and micro enterprises.

Social innovation has a key role to play in addressing these challenges alongside with technological and green innovation.

Against this background, the European Social Innovation Competition 2023 will support proposed solutions coming from social innovators to fight energy poverty in the broadest sense. Therefore, proposed solutions can focus for example on aspects related to monitoring, awareness raising, specific target groups, pricing models, production, consumption and energy savings, renovations, energy community and joint investments, or investments among others.

In this context, social innovations could result in a new or adapted service or business model or technologic development.

The competition will look for technological and non-technological social innovations. The competition will have a particular focus on breakthrough, market-creating and deep-tech innovations embracing the objectives of this year's edition, which will contribute to fighting energy poverty and, consequently, will have a positive impact on citizens' lives and local prosperity.

Three winners (ranked 1st, 2nd, and 3rd) would be rewarded with EUR 50 000 each one.

Eligibility criteria

1. The applicant must be a natural person or a legal entity established in one of the Member States (including overseas countries and territories, (OCTs)) or Associated Countries to Horizon Europe.
2. Proposed solutions that harm the environment or social welfare are not eligible.[106]
3. The proposed solutions or activities contained in the application must have taken place in a Member State (including overseas countries and territories, OCTs) or in an Associated Country to Horizon Europe. The proposed solutions must relate to ongoing or completed initiatives. In case of ongoing activities, only work achieved by the submission deadline will be considered for the prize.

[106] In line with the Do Not Significant Harm principle, see Annex 2

4. Winners of all categories, including both from the Challenge and the Impact Prizes, of previous editions of the European Social Innovation Competition are not eligible.
5. Applicants that have already received an EU or Euratom prize cannot receive a second prize for the same activities.

Award criteria

The award is launched and managed by the Agency. Three prizes will be awarded after closure of the contest to the applicants who, in the opinion of the jury of independent experts, best address the following cumulative criteria:

1. **Degree of Innovation** - the degree to which any new product, service or model is new for its given context in connection to the challenge of the competition. The idea must be new and innovative within its given socio-economic and geographical context;
2. **Impact -** the potential of the proposal to tackle the competition challenge. The applicant must demonstrate how the proposed solution will contribute to solving the challenge;
3. **Viability** - the financial and environmental sustainability of the proposal;
4. **Scalability and replicability** - the idea's potential to scale and be replicated, be it at regional, national, European or global level.

The jury will review and score eligible applications. On this basis, the jury will propose up to 15 finalists (ranked 1st to 15th) and from them, three winners (ranked 1st, 2nd, and 3rd). Each winner will receive EUR 50 000.

The competition provides other benefits for finalists. In this regard, once the competition will be finished, all finalists will be invited to attend the Social Innovation Academia. This Academia will be an event where the finalists will receive business acceleration services (e.g. mentoring or training) with the aim to help them developing and/or scaling up their applications.

Further details on the evaluation process and award criteria, as well as promotional and supporting activities, will be specified in the rules for this contest published at the launch of the yearly contest. For the common rules of contest for prizes, please see the Funding and Tender Opportunities Portal.

Expected results

The European Social Innovation Competition aims at raising awareness about social innovation across a wide audience, sparking the creation of new socially innovative

ideas creating a network of like-minded practitioners and supporting finalists to transform their ideas into structured businesses.

Indicative timetable of the competition:

Stages	Date and time or indicative period
Opening of the contest	Q1-Q2 2023
Deadline for submission of applications	Q2 – Q3 2023
Award of the prize	Q3 2023 - Q1 2024
Social Innovation Academia	Q32023 - Q1 2024

Type of Action: Recognition Prize

Indicative budget:

Challenge prize (3 winners)	**EUR 150 000 (EUR 50 000 x 3)**
Social Innovation Academia	**EUR 50 000**

VI.5 The European Prize for Humanitarian Innovation

Objectives and scope

The European Union and its Member States are major humanitarian donors. Humanitarian crises and disasters have increased in number, complexity and severity over the last 25 years. Given the scale of today's crises and disasters, funding to cover humanitarian needs cannot keep up. The humanitarian system is being challenged to do more, for more people, and at greater cost. Cooperation between international organisations and NGOs responding to crises, end-users and local actors, research and scientific communities and the private sector is crucial in this respect. Innovative solutions for the delivery of humanitarian aid, including digital solutions, are already helping enhance the humanitarian response. Recognising innovators and helping innovations to reach scale is now a key challenge for ensuring their benefits flow to people affected by crises, and particularly those in a most vulnerable situation.

The European Prize for Humanitarian Innovation celebrates the humanitarian organisations, social enterprises, and companies that are developing technology to deliver better quality assistance to vulnerable people affected by natural disasters and man-made crises such as conflicts. The prize recognises innovations and the

organisations that develop them so that they may inspire other humanitarian actors to scale up actions that allow more effective and efficient delivery of humanitarian assistance.

The prize will be awarded to the organisations that have developed and are deploying innovative solutions for the delivery of humanitarian aid, that are cost-effective, simple to use and re-use, scalable in different humanitarian aid settings and sectors such as shelter, water and sanitation, energy, heating or cooling, food, hygiene, protection, natural disaster risk reduction and health care and based *inter alia* on the application of digital technologies.

Solutions should be tested and proven use cases of disruptive innovation, aimed at changing the paradigm and promoting more efficient humanitarian aid delivery and based on advanced technologies and services, including digital technologies demonstrating the added value and potential of one or more advanced technologies. The prize will be awarded to eligible organisations from across the EU and countries associated to Horizon Europe, who have transformed their ideas into disruptive innovations which provide assistance to vulnerable people affected by humanitarian crises.

The prize will reward the winner (ranked 1st) with EUR 250 000 and two runners-up (ranked 2nd and 3rd) with EUR 150 000 and EUR 100 000 respectively.

Eligibility criteria

1. Eligible applicants are any humanitarian non-governmental or international organisation, and/or legal entities established in one of the Member States (including overseas countries and territories, OCTs) or a country associated to Horizon Europe;
2. Applicants who have already received an EU or Euratom prize cannot receive a second prize for the same activities.

Award criteria

The award is launched and managed by the Agency. The prizes will be awarded after the closure of the contest to the applicants who, in the opinion of the jury of independent experts, best address the following criteria:

1. **Innovative solution** tested successfully and safely in a humanitarian aid environment and on a sufficient scale, with a demonstrated potential of adaptability and scalability under different humanitarian aid settings and responding to the needs of those in a most vulnerable situation (taking age, gender, disability and minority into consideration);

2. **Quality and sustainability** of the solution based on the application of advanced, technologies including digital technologies, by demonstrating improved robustness and quality of response compared to existing solutions and by taking account scarcity of resources and potential environmental impacts;
3. **Affordability and cost-effectiveness** for beneficiaries and organisations responding to crisis, meaning a better value for money compared to existing solutions (considering notably the installation, operational and maintenance costs)
4. **Engagement** with end users amongst affected populations to facilitate their involvement in the design of the solution, and perspective of a business case for (re)deployment of the solution at scale.

The jury will review and score all eligible applications. On this basis, the jury will propose three winners (ranked 1st, 2nd and 3rd)

Further details on the evaluation and award criteria will be specified in the rules for this contest published at the launch of the contest. For the common 'Rules of Contest for Prizes' please see the Funding and Tenders Portal.

Expected results

- Supporting the development and scaling of disruptive innovations with the potential to deliver a more cost-effective, sustainable and higher-quality aid delivery, leading to an optimised use of humanitarian funding and an enhanced response to urgent needs in a humanitarian aid settings, notably for those in a most vulnerable situation, in areas such as shelter, water and sanitation, energy, heating or cooling, food, hygiene, protection, natural disaster risk reduction and health care.

Type of Action: **Recognition Prize**

Indicative Timetable:

Stages	Indicative period
Opening of the contest	Q1 – Q2 2023
Deadline for submission of proposals	Q3 2023
Award of the prize	Q1 Q2 2024

Indicative Budget:

Category	Amount
'Humanitarian Innovators' category	
1st prize	EUR 250 000
2nd prize	EUR 150 000
3rd prize	EUR 100 000

VII. Other Actions

VII.1 Honoraria and expenses of the EIC Board

As highly qualified, specialised, independent advisors appointed following an open and transparent procedure, the members of the EIC Board will be remunerated for the services they offer from the budget of the EIC work programme.

Remuneration is justified on the grounds of the personal commitment of the members and their work providing high level strategic advice to the Commission and bringing prestige and visibility to the EIC.

Remuneration will be proportionate to the specific tasks to be assigned to EIC Board members and it will closely mirror compensation schemes for other EU, international or national entities of similar nature. Remuneration will take the form of honoraria for their effective participation at the Board's plenary meetings or any other additional meetings where EIC Board members are asked to attend. It will be accompanied by a compensation for travel ('travel allowance') and other expenses ('per diem') for in person meetings on location.

1. The rules on the compensation of the members of the EIC Board (other than its President) are the following: Honoraria of members of the EIC Board other than the President, as well as their travel and subsistence expenses (per diem), will be paid by the Agency. Honoraria will be paid irrespective of the length (i.e. number of days) of the meeting and will be governed by the provisions of the individual expert contract in accordance with points 2) to 7).
2. The honoraria of the members referred to in point 1 will be:
    - EUR 2 000 for full attendance at a plenary meeting, and;
    - EUR 1 000 for partial attendance (up to 50% of the meeting time).
3. Payments will be authorised by the Agency on the basis of an attendance list validated by the EIC Board President and the Director of the Agency or their deputies. The attendance list must indicate if each member attended the entire meeting (full attendance) or only part of it (partial attendance).
4. For other meetings than plenary meetings, and preparatory work, the Agency will, where appropriate, reimburse those days and travel and subsistence expenses necessary for members of the Board to carry out their activities in

accordance with their contract and the Commission's rules on the reimbursement of external experts.[107]

5. In the case of participation at plenary meetings through the use of remote communication, the duration of the communication link must count as a physical presence at the meeting for the purpose of establishing the appropriate honoraria.
6. The honoraria and travel and subsistence expenses will be paid from the operational budget indicated in this Work Programme.

These amounts are adapted to high level expert's terms as performed by other entities for similar high level work. Daily expenses other than plenary meetings shall be reimbursed based on time spent and at the request of the Agency, without prejudice to the responsibility of the Commission, of a daily amount of EUR 1000. In accordance with Article 49(2) of the Horizon Europe Regulation, the level of remuneration for EIC Board members is beyond the standard conditions, as the Board consists of high level experts, their role goes beyond that of normal experts, and a daily reimbursement of an amount of EUR 1000 is in line with relevant market standards.

Type of action: Expert contract action.

Indicative budget: EUR 500 000

Indicative Opening: From Q1 2023

VII.2 External expertise for monitoring, ethics and policy advice

The EIC uses external independent experts for monitoring of projects[108] and ethics compliance, for other compliance checks (including on Gender Equality Plans), for technology assessments, for policy advice on the optimal achievement of the EIC objectives, as well as for the implementation of scientific/technological/ innovation intelligence, proactive management of EIC activities (including support to BAS activities and to the EIC Programme Managers). The EIC also reimburses the costs of applicants invited to attend face to face interviews during the evaluation of their proposals.

A special allowance of EUR 450/day will be paid to the experts appointed in their personal capacity who act independently and in the public interest.

[107] Commission Decision C(2007) 5858.
[108] Including projects financed by the EIC pilot, SME instrument, Fast Track to Innovation, FET Open and FET Proactive under Horizon 2020.

Type of action: Expert contracts.

Indicative budget: EUR 5 230 000

Indicative opening: From Q1 2023.

VII.3 Outreach and training for EIC Jury member experts

The objective of this action is to train jury members and establish an efficient and fruitful working relationship among EIC jury members, Agency Staff, and the EIC Board and EIC Fund representatives. EIC jury members play an instrumental role in the selection process since they conduct face-to-face interviews with shortlisted companies and projects applying for funding at the last stage of the selection process. The trainings will take place in Brussels and will gather EIC Accelerator and EIC Transition Jury Members with the objective to:

- Further train, share best practice and exchange important feedback essential in selecting the most promising and impactful EIC Transition and EIC Accelerator projects;
- Contribute to the strengthening of the EIC ecosystem in which both Transition and Accelerator Jury Members can work in synergy and cooperation with other key EIC actors such as EIC Board members, EIC Fund representatives and Agency staff;
- Showcase examples of best Accelerator and Transition projects selected through the interview process to emphasise the importance of the EIC program for European innovation and entrepreneurship

Type of action: Public Procurement Action.

Indicative budget: EUR 700 000

Indicative opening: From Q1 2023.

VII.4 Communication, outreach, events

The success of the EIC lies in attracting highly innovative and diverse companies and researchers that can generate fast and high growth, as well as co-investors and global corporates that can further maximise the impact of EIC support.

The objective of this action is to prepare and implement the communication and outreach activities for the EIC, following advice from the EIC Board, with an objective

to strengthen the reputation of the EIC among its stakeholders, potential applicants, policymakers, and the broader EU innovation ecosystem. This action covers the maintenance and management of the EIC website and its social media channels; the creation of relevant informative content and materials; the preparation and development of thematic communication campaigns; media relations and other outreach and stakeholders engagement activities.

In addition, it allows to organise the EIC Summit 2024 which is due to take place in March 2024, EIC Awards Ceremonies and to ensure a more prominent EIC presence at key events, including the EU Research and Innovation Days as well as third parties events.

This should allow the EIC to become a prominent voice in the ongoing debates relevant to innovation policy in Europe and globally. The communication and outreach campaign should generate awareness and impact at international, European, national, regional and local levels.

Type of action: Public procurement actions.

Indicative opening: from Q1 2023.

Indicative budget: EUR 2 000 000

VII.5 Swedish Presidency Conference

The objective of this action is to ensure the support for the organisation of a conference on deep tech and scale ups by the Swedish Ministry of Enterprise and Innovation in June during the Swedish Presidency of the Council (January-June 2023). This action will also cover the organisation of an EIC annual event in 2023 which will take place under the Swedish Presidency event.

Expected outcomes and impacts

- Raise awareness among European policymakers, deep tech companies and representatives from the innovation and business communities about the role of deep tech in tackling the most urgent societal challenges.
- Increase the knowledge of deep tech companies of existing complementary support schemes at national and European level.
- Increase the number of European companies offering transformative solutions for the green and digital transition.

Type of Action: Coordination and support action (CSA) / Grant to a named beneficiary (*as the implementation of this grant is linked to a Swedish Presidency*

event in support pf the EIC, it will be awarded to an identified beneficiary according to Article 195 of the Financial Regulation).

Legal entities:

- Swedish Ministry of Enterprise and Innovation[109]
- Vinnova[110]

Indicative budget: EUR 400 000

Call Opening: 10 January 2023

Deadline for applications 10 February 2023 at 17h00 Brussels local time

VII.6 Spanish Presidency innovators summit

This action aims to support the organisation of a conference on innovation by the Spanish government during the Spanish Presidency of the Council (July-December 2023). The frame of this high-level event will focus on the contribution of innovative start-ups and SMEs in transferring knowledge and raising awareness of the achievements of the New European Innovation Agenda.

It will be a high-level event with one institutional Conference gathering the public and private representatives in the national, European and international innovation landscape. The session may incorporate political messages and attract examples of global partners that have helped ensure a sustained investment in core capabilities to connect science and business. Additionally, it is expected to have a match-making session for start-ups and funders. Thus the conference may also become a space to present companies' innovations and allow exchanges with investment funds or large incorporations.

Expected outcomes and impacts

- Increase exchanges and awareness among European and national policymakers, start-ups and SMES, and representatives from the innovation and business communities.
- Raise awareness of the achievements of the New European Innovation Agenda at national and European level.

[109] Herkulesgatan 17, SE 103 33 Stockholm, Sweden, Organisation number: 202100-3831 (Swedish Government Offices)
[110] 101 58, Stockholm, Sweden, Organisation number: 202100-5216

Type of Action: Coordination and support action (CSA) / Grant to a named beneficiary (*as the implementation of this grant is linked to a Spanish Presidency event in support of the EIC, it will be awarded to an identified beneficiary according to Article 195 of the Financial Regulation)*)

Legal entity: Fundación Española para la Ciencia y la Tecnología – FECYT

Indicative budget: EUR 300 000

Call Opening: 10 June 2023

Deadline for applications: 10 July 2023 at 17h00 Brussels local time

VII.7 Next generation Innovation Talents

The objective of the 'Next Generation Innovation Talents' scheme is to enable researchers and aspiring innovators to better understand and gain direct experience of the complex process of taking innovation beyond invention and help them develop their entrepreneurial mindset. At the same time, this scheme aims to provide innovative start-ups with access to new ideas and insights from the cutting edge of research, thus accelerating the development of their breakthrough products and services.

The scheme will allow eligible researchers to carry out an innovation internship in a hosting company, and will be open to:

- As hosting companies: start-ups and SMEs supported by the EIC Accelerator (including H2020 SME instrument), EIC awarded Seal of Excellence companies, SMEs/ start-ups in EIC Transition as well as start-ups/SMEs supported by EIT-KIC innovation and business creation/acceleration programmes;
- As researchers eligible for internships: participants in projects funded by the European Research Council (ERC); the EIC Pathfinder, the Marie Sklodowska Skłodowska-Curie Actions (MSCA) postdoctoral fellowships, doctoral networks and COFUND programmes; the Research Infrastructures part of Horizon Europe, and relevant students in (and graduates from) EIT Label Masters and Doctoral programmes, EIT Alumni, EIT Jumpstarter beneficiaries.

The scheme will be implemented in close cooperation with each of the original funding schemes of the researchers (MSCA, EIT, ERC, EIC Pathfinder, the Research Infrastructure part of Horizon Europe). The costs of the internships will be covered by the participating programmes (with exception of ERC), in line with their work programmes. The hosting companies will not provide any direct payment to the interns. It is expected

that approximately 600 innovation internships will be supported under this action, of approximately three to six months each, over a two year period.

The implementation of this ' Next generation Innovation Talents' scheme will be supported by a service provider to create and manage the matchmaking between companies and researchers/aspiring innovators in the framework of innovation internships. Specifically, the service provided should cover the following activities:

- Support to the preparation and implementation of call(s) for expression(s) of interest to eligible researchers/ research organisations and eligible companies in coordination with participating EU funding bodies;
- Creation of a matchmaking IT platform between interested researchers (candidate interns) and companies;
- Provision of guidance and support for candidate interns and companies;
- Handling of agreements with the research institutes and the companies;
- Follow up on any practical issues related to the internships;
- Organisation of information and dissemination campaigns;
- Organisation of stipends to cover additional costs of interns (when relevant);
- Regular reporting back to each respective EU funding programme, companies and interns;
- Provision of feedback on the effectiveness and impact of scheme (e.g. through surveys, focus groups);

Type of action: Public Procurement

Indicative timetable: Q1 2023 for launch of procurement procedures

Indicative budget: EUR 4 000 000

VII.8 Executives–in-Residence 'XIR' Pilot Programme

Introduction and scope

Europe's prosperity and competitiveness in the coming decades depends on strengthening the European scientific and industrial base, in particular turning promising research projects into high growth innovative companies. Enhancing collaboration between these two important pillars of the European economy helps ensure that the European Union accelerates and enables necessary changes to benefit

all parts of society, while catching up with its innovation lag[111] in a world with accelerating changes and new emerging competitors.

Fast and targeted support for potential disruptive and market creative ideas that can strengthen industry-research partnerships are a major opportunity to maximise the economic resilience and flexibility of European markets. Tackling this fundamental challenge is the mission the EIC is tasked with, in coordination with Member States' initiatives, other parts of Horizon Europe (such as the European Innovation Ecosystems work programme) and the European stakeholders' own efforts.

Since its launch, the EIC funding and support measures are targeting the full innovation spectrum from early-stage cutting-edge research to the scale-up of genuinely innovative SMEs. Yet, in addition to direct financial support, the current set up still lacks sufficient proactive investment-based scrutiny to identify the most promising EIC research results that would benefit from targeted, market-focused expert mentoring and innovation. These complementary (non-financial) support measures are essential for innovators and early stage companies to translate their research results into impactful innovation. To tackle this major challenge, a new pilot action, called "Executives-in-Residence" (XIR) programme will be launched.

Specific objectives

The following specific objectives have been identified for this pilot programme:

- Select a minimum of 50 promising cutting-edge research results/projects with spin-off potential or SMEs from the EIC Pathfinder[112] and EIC Transition, based on a rigorous market assessment process conducted by specialised experts. Early-stage Accelerator projects, in particular "grant first" or those for which the EIC is the sole/first investor, may also be included on this pool of 'XIR beneficiaries'.
- Set up a network of minimum 40 seasoned C-level executive mentors ('XIRs') with VC and entrepreneurial experience who are willing to offer a predefined number of hours of expertise on a pro-bono basis in return for early access to market intelligence on strategic product development, market dynamics as well as source potential innovator/CEO opportunities.

[111] E.g. the number and total valuation of European unicorns is considerably lower than the EU's shares of World GDP and trade.
[112] Including Horizon 2020 Future and Emerging Technologies (FET)

- Pair up XIRs with beneficiaries (minimum 30) for a pre-defined time, based on each beneficiary's clearly set and tailored objectives, to be discussed and agreed with the assigned XIR.
- Additionally, in the context of this pilot only and at the launch of this programme, provide for an investor-based screening of all closed Horizon 2020 FET projects, including Innovation Launchpad,[113] to assess any missed opportunities for further EIC support. The deliverable will be a screening report with detailed plans for further support of a minimum of 100 identified results.

These activities should be coordinated with other EIC BAS and specifically Tech2Market activities.

Actions under XIR pilot programme should also support technologies and organisations that are strategically important for Europe's future and deliver on the following European ecosystems related activities:

- Focused support for commercialisation efforts to European universities and research organisations aimed at developing research and technology products for commercial market use, validating product market fit and finding customers in EU and abroad.
- Active engagement of seasoned executives with deep domain expertise in commercial sectors that may benefit from technologies arising from research at European universities and research organisations. Executives-in-Residence are encouraged to develop close ties with European inventors, entrepreneurs, as well as with the technology transfer teams of universities and research organizations, in order to help develop the most interesting technologies and identify opportunities which may be appropriate for a start-up.
- For example, XiRs typically get involved with a range of activities, including reviewing and providing input on unlicensed intellectual property, identifying untapped opportunities; providing guidance to faculty and student entrepreneurs looking to create start-ups; meeting with inventors looking for commercial perspective relating to their inventions; providing input on Technology Transfer Offices' patent and seed fund decisions, when requested.

Expected outcomes and impact

- Enhance probability of success for research projects/results to convert into SMEs that are well positioned to tap into the EIC Accelerator and/or other public (e.g. National Promotional Banks) or private capital.

[113] 92 FET projects and 34 Innovation Launchpad closed at the date of 15.09.2022

- Enhance probability of success for early-stage EIC Accelerator projects to find co- or alternate external investors (at least 50% of participating projects finding investors)
- Contribute to the overall enhancement of the European innovation ecosystems initiatives;
- Improve the geographical balance as well as other thematic priorities (such as breakthrough climate technologies, deep digital, health, women-led companies) of European start-ups.

Type of action: Indirect management (contribution agreement)

Legal entity: European Investment Bank through its EIB Institute (subject to EIB approval) in close coordination with EIF, other National Promotional Banks and with the support of external consultants for specialized expert advice.

Budget: up to EUR 2 million

Call Opening: 19 April 2023

Deadline for applications: 19 May 2023

VII.9 EIC Data management and IT systems integration

The purpose of this action is to provide to the EIC the means to achieve the EIC Programme objectives in complementarity with other related actions such as Innospace Platform and with EC Corporate IT tools (eGrants).

This include the development of user stories, functional and technical analysis, IT architecture and development of new functionalities, evolutive maintenance of existing IT components, cloud infrastructure architecture and provisioning, automatic /user testing of new features, IT helpdesk and user support while ensuring adequate IT project and team management, ensure security and IT governance compliance.

The focus in 2023, building on the developments started in 2021-2022 is to advance on the needed improvements and technological upgrade of the EIC IT system to ensure scalability performance and robustness taking also into account the upcoming integration with Innospace Platform. The focus will also be on harnessing the data and information coming from internal and third-party sources to enable data-driven decision-making and strategic intelligence for the proactive management of EIC activities and the efficient and effective delivery of services to EIC applicants, beneficiaries and stakeholders.

Considering the above, the EIC IT developments will focus on the following key components:

- Provide access and dashboards for Member States and Associated Countries in order to improve support for applicants and for projects and companies awarded the Seal of Excellence.
- Improve and expand the IT tools and interfaces built to support the daily operations management of EIC applicants, beneficiaries and stakeholders of EIC Accelerator, Transition, Pathfinder, Woman TechEU and others.
- Expand the integration of EIC IT tools with Innospace Platform and other relevant IT systems, including those of the European Commission (i.a. eGrants), EIT KICs, national and regional ecosystems, relevant EU programmes and third parties (i.e. national business registries, granting and procurement platforms etc.);
- Further develop role management and access control system to ensure secure access to EIC tools and data.
- Ensure continuous access to relevant, accurate and fresh data sources for the systems above, to ensure Strategic Intelligence Data capabilities, connecting to high quality bi-directional data services from EU Institutions, EU Member States, Associated Countries, and third parties. Acquire data from external sources to improve intelligence on relevant scientific, technological and market trends;
- Further expand the existing back-office IT tools and improve the EIC data collection and transformation capabilities ensuring higher quality and reliability of data made available across all the above-mentioned systems;
- Develop the workflows and functionalities to support and follow-up the Fast Track / Plug-in scheme projects (c.f. Annex 3 and Annex 4)
- Update, improve and maintain the EIC Community and Challenge Innovation platform to help EIC funded projects and companies in finding partners and relevant support to their activities and projects, facilitate business development, networking activities and the establishment of communities of practice (see Section V) as a coherent part of the Innospace Platform;
- Update and improve the EIC Coaching system to automate administrative operations, generate statistics automatically and better integrate with the other EIC and EC corporate tools;

- Further develop and expand the event management tools and organisation of EIC evaluation interviews;
- Further improve expert management and evaluation quality control tools
- Support capacity development and Learning for EIC evaluators, experts and beneficiaries on-line and through EU Academy training events;
- Improve integration and seamless user experience across all the above tools;
- Ensure proper user support for all the tools made available.

The above developments will follow, as much as possible, the principles of open source code and open data standards ensuring that both the tools and data generated can be reused by other institutions, Member States, Associated Countries and relevant third parties.

Type of action: Public procurement action.

Indicative budget: EUR 4 200 000

Indicative opening: From Q1 2023.

VII.10 Foresight, future-oriented assessments and data-driven intelligence

An integrated use of anticipatory analytics and intelligence is essential to the design and deployment of EIC funding, in particular for identifying EIC Challenges, as well as a transformational element in EIC pathways to inform policy and support positive societal impacts. The aim of this action is to increase EIC capacity by combining data-driven and expert-based intelligence in the creation and management of future-oriented knowledge.

VII.10.1. Anticipation and monitoring of breakthrough technologies and disruptive innovations

This action will extend the ongoing collaboration with the Joint Research Centre on anticipation and monitoring of breakthrough technologies and disruptive innovation. The goals are to:

- Acquire evidence-based and stakeholder-centric advice with short and medium-term horizons on signals, trends, drivers and potential impacts of specific technologies and innovation domains, through a mixed methods approach based on state-of-the-art anticipatory research.

- Support the long-term development of EIC internal strategic intelligence capacity, with focus on the identification and mapping of fields for EIC Challenges , proactive management of portfolios steered by EIC Programme Managers, and EIC mandate on Feedback to Policy (F2P)

Type of action: Scientific and technical services by the Joint Research Centre.

Indicative timetable: Q3 2023.

Indicative budget: EUR 0.3 million

VII.10.2. Data and analytical studies

This action will enhance EIC exploitation of internal and internal data flows. It is targeted to address current knowledge gaps, including to improve knowledge processes and architectures for foresight and strategic intelligence, to monitor performance, impact and trends of EIC beneficiaries, and to better understand investment patterns and the European venture capital market for deep tech scale ups.

The overall goal is to scope, assess, and develop data-driven and new methodological outputs for operational planning, and stakeholder-centric and experimental research.

Type of action: Public procurements.

Indicative timetable: Q3 2023.

Indicative budget: EUR 0.45 million

VII.11 Expert group on the Plug-In scheme

This action will support the EIC operation and the implementation of the Plug-in scheme for the EIC Accelerator (see Annex 4).

This expert group will assess the programmes and related evaluation processes submitted by Members States and Associated Countries on an annual basis, and will recommend certification of those programmes suitable for the Plug-In scheme.

The expert group will also conduct a review of the experience from the pilot phase of the Plug-in scheme to develop recommendations for the future development and implementation of the scheme. Finally, the expert group may be requested to provide country specific recommendations for those Member States and Associated Countries who have not proposed relevant programmes or where those programmes have not been certified. The terms of reference will be co-created and co-designed with the Member States under the Working Group of the EIC Forum.

A special allowance of EUR 450/day will be paid to the experts appointed in their personal capacity who act independently and in the public interest. This amount is considered to be proportionate to the specific tasks to be assigned to the experts, including the number of meetings to be attended and possible preparatory work.

Type of action: Expert contracts

Indicative budget: EUR 100 000

Indicative opening: From Q2 2023

VII.12 Expert group to contribute to the mid-term review of Horizon Europe for the EIC

The European Innovation Council (EIC), the European Institute of Innovation and Technology (EIT) and the European Innovation Ecosystems (EIE) programmes have already established synergies and collaboration to ensure the coherent delivery of the 'Innovative Europe' Pillar of the Horizon Europe Framework Programme. In particular, actions arising from the Memorandum of Understanding signed between the EIT and the EIC in January 2021 include the fast tracking of EIT KICs projects into the EIC Accelerator and collaboration to support women entrepreneurs.

However, considering the interlinked nature of the three programmes as far as support to innovative companies, innovation ecosystems and talents is concerned, this expert group will review the first 3 years of implementation of the EIC, including its governance and institutional architecture and its relationship with the EIT and the EIE, where relevant making recommendations for improvements. The group will also advise on approaches to simplify operations and improve accessibility to funding and support for the European innovation community stakeholders. . The Expert Group is expected to interact with the EIC Board, the EIT Governing Board and the EIC Forum in undertaking its tasks and developing recommendations. The work of this Expert Group will be complementary to the mid-term review of Horizon Europe and the outputs of the group are expected to feed into the mid-term review.

A special allowance of EUR 450/day will be paid to the experts appointed in their personal capacity who act independently and in the public interest. This amount is considered to be proportionate to the specific tasks to be assigned to the experts, including the number of meetings to be attended and possible preparatory work.

Type of action: Expert contracts

Indicative budget: EUR 250 000

Indicative timeline: Q2 2023

Annexes

Annex 1 Estimated Indicative Budget

Calls/Actions [1]	Budget in EUR millions	
	Horizon Europe budget	Next Generation EU budget
HORIZON-EIC-2023-PATHFINDEROPEN-01[2]	179.50	
HORIZON-EIC-2023-PATHFINDERCHALLENGES-01[2]	163.50	
HORIZON-EIC-2023-TRANSITIONOPEN-01-01[2]	67.86	
HORIZON-EIC-2023-TRANSITIONCHALLENGES-01-01/02/03[2]	20	40.5
HORIZON-EIC-2023-ACCELERATOROPEN-01-01 [3-5]	459.74	152.01
HORIZON-EIC-2023-ACCELERATORCHALLENGES-01-01/02 [3-5]	266.16	257.33
HORIZON-EIC-2023-INNOPRO-01	3	
HORIZON-EIC-2023-SWEDPC-IBA-01	0.4	
HORIZON-EIC-2023-SPAIN-IBA-01	0.3	
HORIZON-EIC-2023-XIR-01	2	
Prizes	3.12	
Public Procurement Actions	31.3	
Expert contracts	9.08	
Scientific and technical services by the Joint Research Centre	0.3	
ESTIMATED TOTAL BUDGET	1 206.31	449.84

(1) The budgets set out in the calls and topics are indicative. Unless otherwise stated, final budgets may change following evaluation. The final figures may change by up to 20% compared to the total budget indicated in this Work Programme. Changes within these limits will not be considered substantial within the meaning of Article 110(5) of Regulation (EU, Euratom) No 2018/1046.

(2) Max. 1% of the budget dedicated to this call may be used for additional grants (Booster grants -See Annex 5) to existing projects for a fixed amount of EUR 50 000 as set out in the relevant Call section.

(3) The Accelerator is a continuously open call and hence this amount may be increased by any amounts committed but not allocated under the cut-offs of the previous EIC annual Work Programme. The share of the budget dedicated to investments (e.g. equity, equity-like, debt/guarantees, etc.) and grants will be a result of the evaluation and due diligence process for applications to the EIC Accelerator. The contribution from Next Generation EU budget will only be used for the grant component. In case the full budget allocated for investments in year N will not be committed fully in year N+1 at the latest, the unused budget may be reallocated to subsequent EIC Accelerator calls.

(4) The EIC Fund will receive an annual amount from the EIC Work Programme budget to cover administrative expenses and fees. This administrative budget covers the operation and administration expenses of any investment. These costs include any cost in relation to the acquisition, ownership or realisation of the investments. The administrative budget covers, among others, the fees payable to the EIC Fund Manager, other service providers, advisory, compensations to external experts, depositary and administrative agent fees, accounting, auditors, compliance procedures, communication and marketing, litigation or arbitration, statutory or regulatory fees, insurance premiums, taxes and other governmental charges and any other operational and administration costs and expenses as required. This budget will in average not exceed 10 % of the budget transferred for investments purposes. The indicative budget under indirect management is expected to be around EUR 569.000.000.

(5) Amounts from EIC Accelerator calls, including amounts decommitted from proposals awarded funding under the Accelerator calls, may be used for follow-on investments within the same budgetary year either to grant-first beneficiaries or under the provisions set out in Horizon Europe Regulation Article 48(12), including for actions selected under Accelerator calls from previous years. Such follow-on investments will be subject to a valid financing decision and to the provision of information to the EIC and EIE Programme Committee.

Annex 2 General conditions for proposals

A. ADMISSIBILITY

Proposals must be submitted before the **call deadline**.

Proposals must be submitted **electronically** directly via the Funding and Tender portal electronic submission system (accessible via the call topic page in the Search Funding and Tenders section); or indirectly via the EIC Community Platform where applicants will be redirected to the Portal. Paper submissions are NOT possible.

Proposals must be readable, accessible, printable and complete (contain all the requested information and all required annexes and supporting documents) and must be submitted using the forms provided inside the electronic submission system.

The Application Form for EIC Pathfinder and EIC Transition will have two parts:

- **Part A** (to be filled in directly online) — contains administrative information about the applicant organisations (future coordinator and beneficiaries and affiliated entities), the summarised budget for the proposal and ethics and security specific questions;
- **Part B** (to be downloaded from the Portal Submission System, completed and then assembled and re-uploaded as PDF in the system) — contains the technical description of the project.

Annexes and supporting documents will be directly available in the Submission System and must be uploaded as PDF files (or other formats allowed by the system).

The **page limits** and sections subject to limits will be clearly shown in the application templates and must be respected. If an application exceeds the limits, there will be an automatic warning and invitation to re-submit a version that conforms to these limits. Excess pages will be automatically made invisible, and will not be taken into consideration by the evaluators.

For the EIC Accelerator, the applicant must not be in a situation of **concurrent submission/implementation**. Concurrent submission exists when an applicant submits more than one proposal for evaluation to any EIC Accelerator call before the evaluation feedback has been provided for the earlier submission. If a case of concurrent submission is identified, only the proposal submitted first will be deemed eligible. Concurrent implementation occurs when the awardee of an ongoing EIC

Accelerator/EIC Pilot/SME Instrument project submits another proposal before the first project is finalised.[114]

In no circumstances can the same costs be financed twice by the budget (article 191 of the Financial Regulation).

Applicants will be asked at a later stage for further documents (for legal entity validation, financial capacity check, bank account validation, etc.).

B. ELIGIBILITY

Entities eligible for participation

Any legal entity,[115] regardless of its place of establishment, including legal entities from non-associated third countries or international organisation (including international European research organisations)[116] is **eligible to participate** (whether it is eligible for funding or not), provided that the conditions laid down in the Horizon Europe Regulation have been met together with any other **conditions laid down in the specific call or topic**.

A 'legal entity' means any natural or legal person created and recognised as such under national law, EU law or international law, which has legal personality and which may, acting in its own name, exercise rights and be subject to obligations, or an entity without legal personality.[117]

Beneficiaries and affiliated entities must register in the Participant Register before submitting their application, in order to get a participant identification code (PIC) and be validated by the Central Validation Service before signing the grant agreement. For the validation, they will be asked to upload the necessary documents showing their legal status and origin during the grant preparation stage. A validated PIC is not a prerequisite for submitting an application.

[114] Ongoing projects selected under a Horizon 2020 EIC pilot Accelerator call may be eligible to submit a proposal for a related investment component under an EIC Accelerator call.
[115] For the definition of 'legal entity', see Article 2 (16) Regulation (EU) 2021/695 as well as Article 197(2)(c) EU Financial Regulation.
[116] International European research organisation means an international organisation, the majority of whose members are Member States or Associated Countries, and whose principal objective is to promote scientific and technological cooperation in Europe (Article 2 (15) Regulation (EU) 2021/695).
[117] See Article 197(2)(c) EU Financial Regulation.

Entities eligible for funding

To become a beneficiary and therefore to be eligible for funding, applicants must be established in one of the eligible countries, i.e.:

- Member States of the European Union, including their outermost regions
- the Overseas Countries and Territories (OCTs) linked to the Member States[118]
  - Aruba (NL), Bonaire (NL), Curação (NL), French Polynesia (FR), French Southern and Antarctic Territories (FR), Greenland (DK), New Caledonia (FR), Saba (NL), Saint Barthélemy (FR), Sint Eustatius (NL), Sint Maarten (NL), St. Pierre and Miquelon (FR), Wallis and Futuna Islands (FR).
- Eligible non-EU countries:
  - countries associated to Horizon Europe[119]

    Considering the Union's interest to retain, in principle, relations with the countries associated to Horizon 2020, most third countries associated to Horizon 2020 are expected to be associated to Horizon Europe in due course of time. In addition, other third countries may also become associated to Horizon Europe during the programme. 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, provided that the Horizon Europe association agreement with the third country concerned applies at the time of signature of the grant agreement. If the association agreement provides for an exclusion from the EIC Accelerator investment component, legal entities from that country are only eligible to apply for the 'grant-only' component of the EIC Accelerator.

  - Low- and middle-income countries.[120]

Legal entities which are established in countries not listed above will be eligible for funding if provided for in the specific call conditions, or if their participation is considered essential for implementing the action by the granting authority.

[118] Entities from Overseas Countries and Territories (OCTs) are eligible for funding under the same conditions as entities from the Member States to which the OCT in question is linked. See the Horizon Europe Programme Guide for a complete list of OCTs.

[119] See the Horizon Europe Programme Guide for up-to-date information on the current list of and the position for Associated Countries.

[120] See the Horizon Europe List of Participating Countries for an up to date list of these countries.

Specific cases:

Affiliated entities — Affiliated entities are eligible for funding if they are established in one of the countries listed above.

EU bodies — Legal entities created under EU law may also be eligible to receive funding, unless their basic act states otherwise.

International organisations — the Joint Research Centre (JRC), international European research organisations are eligible to receive funding. Unless their participation is considered essential for implementing the action by the granting authority, other international organisations are not eligible to receive funding. International organisations with headquarters in a Member State or Associated Country are eligible to receive funding for 'Training and mobility' actions and when provided for in the specific call conditions.

EU restrictive measures —Entities subject to EU restrictive measures under Article 29 of the Treaty on the European Union (TEU) and Article 215 of the Treaty on the Functioning of the EU (TFEU) as well as Article 75 TFEU are not eligible to participate in any capacity, including as beneficiaries, affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors or recipients of financial support to third parties (if any) - http://www.sanctionsmap.eu/

Legal entities established in Russia, Belarus, or in non-government controlled territories of Ukraine — Given the illegal invasion of Ukraine by Russia and the involvement of Belarus, there is currently no appropriate context allowing the implementation of the actions foreseen in this programme with legal entities established in Russia, Belarus, or in non-government controlled territories of Ukraine. Therefore, even where such entities are not subject to EU restrictive measures, such legal entities are not eligible to participate in any capacity. This includes participation as beneficiaries, affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors or recipients of financial support to third parties (if any). [121] Exceptions may be granted on a case-by-case basis for justified reasons.

Legal entities established in China — In accordance with the 2019 "EU-China - A Strategic outlook" communication, the 2021 "Global Approach to Research and Innovation" communication, and the joint conclusions of the 4th EU-China Innovation Cooperation Dialogue of 2019, an exercise to develop a Joint Roadmap for the future of EU-China cooperation in science, technology, and innovation (Roadmap) has been established between the EU and China. It has the objective to develop a level playing

[121] In accordance with Article 204 of the Financial Regulation.

field for engagement between the EU and China in the areas of science, technology, and innovation (STI) that is respectful of fundamental research and innovation values and principles. This endeavor is to be achieved through an agreement on the framework conditions contained in the Roadmap and their monitoring and evaluation. As progress so far has mainly taken place on the framework conditions linked to research rather than on those related to innovation, and taking into account the nature and objectives in particular of Innovation Actions, cooperation with entities established in China needs to be calibrated accordingly.

Legal entities established in China are therefore not eligible to participate in Horizon Europe Innovation Actions, including the EIC Accelerator, in any capacity. This includes participation as beneficiaries, affiliated entities, associated partners, third parties giving in-kind contributions, subcontractors or recipients of financial support to third parties (if any). Exceptions may be granted on a case-by-case basis for justified reasons. The above eligibility condition may be reviewed in the future in accordance with policy developments. This exclusion is justified under Article 22(6) of the Horizon Europe Regulation given the substantive concerns regarding the use of intellectual property generated under this publicly funded programme, and the ongoing discussions between China and the EU on the Joint Roadmap for the future of EU-China cooperation in science, technology, and innovation

Single legal entity ('Mono-beneficiary') and consortium ('multi-beneficiary') composition

Unless otherwise provided for in the specific call conditions:

- Applicants for mono-beneficiary actions must be established in a Member State or Associated Country.
- Proposals for multi-beneficiary actions: unless provided for in the specific call conditions, proposals must be submitted by a consortium including as beneficiaries, at least three legal entities, independent from each other and each established in a different country as follows:
    - at least one legal entity established in a Member State; and
    - at least two other independent legal entities, each established in different Member States or Associated Countries.

As affiliated entities do not sign the grant agreement, they do not count towards the minimum eligibility criteria for consortium composition (if any).

Unless specified otherwise, proposals for EIC Pathfinder Challenge and EIC Transition may be submitted as well by multi-beneficiary comprising of two legal entities, provided that those two legal entities are established in two different Member States or Associated countries.

The JRC, international European research organisations and legal entities created under EU law are deemed to be established in a Member State other than those in which the other legal entities participating in the action are established.

Proposals for Coordination and Support actions may be submitted by one or more legal entities, which must be established in a Member State, Associated Country, or in exceptional cases and if provided for in the specific call conditions, in another third country.[122]

Proposals for 'Pre-commercial procurement' actions and 'Public procurement of innovative solutions' actions must include as beneficiaries a 'buyers' group'. This group must consist of a minimum of two independent legal entities that are public procurers[123], each established in a different Member State or Associated Country and with at least one of them established in a Member State.

Eligible activities

Eligible activities are the ones described in the call conditions. Applications will only be considered eligible if their content corresponds, wholly or in part, to the topic description for which it is submitted.

Projects must focus 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 (with the exception of 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;

[122] Consortia of two entities must be comprised of independent legal entities from two different Member States or Associated Countries. Consortia of three or above entities follow standard rules i.e. they must include at least one legal entity established in a Member State and at least two other independent legal entities, each established in different Member States or Associated Countries (see Annex 2).

[123] 'Public procurers' are organisations that are contracting authorities or contracting entities as defined in EU public procurement directives 2014/24/EU, 2014/25/EU, and 2009/81/E.

- lead to the destruction of human embryos (for example, for obtaining stem cells);

Ethics

Projects must comply with:

- ethical principles (including the highest standards of research integrity), and
- applicable EU, international and national law

Particular attention must be paid to the principle of proportionality, to the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of a person, the right to non-discrimination and to the need to ensure protection of the environment and high levels of human health protection.

Applicants must complete the Ethics issues table and Self-Assessment as part of their proposal in accordance with the guidelines.

For more information, see How to complete your ethics self-assessment.

Projects involving ethics issues will have to undergo an ethics screening/assessment to authorise funding and may be made subject to specific ethics requirements (which become part of the grant agreement). Projects may be also subject to ethics checks/reviews and ethics audits.

Do Not Significant Harm (DNSH) principle

Innovations that significantly harm the environment (and therefore contravene the 'do not significant harm' principle of the EU Taxonomy Regulation), [124] social welfare or that are primarily designed for military applications, or in other fields which are generally excluded from EU funding pursuant to Article 18 Horizon Europe Regulation, will not be funded.

In general, EIC funding will not be awarded to projects that contravene the objectives of the Green Deal, including for example proposals dedicated to enhancing the use of fossil fuels and related technologies. Exceptions might be established, however, for activities aimed at reducing greenhouse gas emissions from certain fossil fuel-based energy sources, such as those covered by the Complementary Climate Delegated Act under the Taxonomy Regulation. For example, this delegated act recognises that, under strict conditions, specific fossil gas-related activities that can help accelerate the

[124] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, p. 13.

transition from high-emitting energy sources, such as coal, to renewable or low-carbon gases are in line with the EU's climate and environmental objectives.[125]

Trustworthy Artificial Intelligence

All AI-based systems or techniques need to be developed in a safe, secure and responsible manner, with a clear identification of and preventative approach to risks and in accordance with the AI Act. Depending on the type of research being proposed (from basic to precompetitive) and as appropriate, AI-based systems or techniques should be, or be developed to become (implicitly or explicitly contributing to the following objectives):

- 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, minimising 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.

All proposals involving the development, use and/or deployment of AI based system/technique must ensure that the proposed AI system/technique is technical robust (e.g. resilient to attack, safe and secure, having fallback plan, accurate, reliable and reproducible), safe and must describe how they will uphold the principles of human agency and oversight, fairness, diversity, non-discrimination, societal and environmental well-being, transparency and accountability.

Security — EU classified and sensitive information

Projects involving classified and/or security sensitive information will have to go through the Security Appraisal process to authorise funding and may be made subject to specific security rules (detailed in a Security Section, which is annexed to the grant and contract agreement). Specific provisions for EU-classified information (EUCI) and sensitive information (SEN) will be included in the grant agreement and contract agreement, as necessary and appropriate.

[125] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022R1214

The rules for protecting EU-classified information (governed by Commission Decision (EU, Euratom) 2015/444[126] provide for instance that:

- projects involving information classified TRES SECRET UE/EU TOP SECRET (or equivalent) CANNOT be funded,
- EU-classified information must be marked in accordance with the applicable security instructions in the Security Classification Guide appendix of the Security Aspects Letter (SAL) which is contained in the Security Section of the grant and contract agreement,
- generation of, or access to, information with classification levels CONFIDENTIEL UE/EU CONFIDENTIAL or above (and RESTREINT UE/EU RESTRICTED, if required by national rules) may take place only on the premises of entities which have been granted a facility security clearance (FSC) issue by the competent national security authority NSA);
- handling of information classified CONFIDENTIEL UE/EU CONFIDENTIAL or above (and RESTREINT UE/EU RESTRICTED, if required by national rules) may take place only in a secured area accredited by the competent NSA;
- access to and handling of information classified CONFIDENTIEL UE/EU CONFIDENTIAL or above may be granted only to individuals with a valid personnel security clearance (PSC) and an established need-to-know, who have been briefed on the applicable security rules;
- access to, and handling of, information classified RESTREINT UE/EU RESTRICTED may be granted only to individuals who have a need-to-know and have been briefed on the applicable security rules;
- at the end of the grant, the classified information must either be returned or continue to be protected according to the applicable rules;
- subcontracting of tasks involving EU-classified information is subject to prior written approval by the European Commission, which is the originator of EU-classified information. It is only possible to subcontract these tasks to entities established in an EU Member State or in a non-EU country with a security of information agreement with the EU(or an administrative arrangement with the Commission);

[126] See Commission Decision 2015/544/EU, Euratom of 13 March 2015 on the security rules for protecting EU classified information (OJ L 72, 17.3.2015, p. 53.

- disclosure of EU-classified information is subject to prior written approval by the European Commission.

Please note that, depending on the type of activity, facility security clearing (FSC) may have to be provided before grant signature. The Agency will assess the need for clearings in each case and will establish their delivery date during grant preparation. Please note that, in no circumstances can we sign any grant and contract agreement until at least one of the beneficiaries in the consortium has an FSC.

In certain cases, the project results might not require classification but they might be security sensitive and consequently require restricted disclosure or limited dissemination due to security reasons, in accordance with the applicable security instructions in the Security Section. This means that, in principle, third parties should have no access to results subject to this type of restriction. Disclosure of this information is subject to prior written approval by the European Commission.

Further security recommendations may be added to the grant and contract agreement in the form of security deliverables *(e.g. create Security Advisory Board, appointment of Project Security Officer, limit the level of detail, use fake scenario, etc.)*.

In addition, EIC Awardees must ensure that their projects are not subject to national/third country security requirements that could affect the implementation or put into question the award of the grants *(e.g. technology restrictions, national security classification, etc.)*. The Agency must be notified immediately of any potential security issues.

Use of Copernicus and Galileo/EGNOS

Projects involving earth observation, positioning, navigation or timing data, services or technologies must make use of at least Copernicus and Galileo/EGNOS data, services and technologies.

Gender Equality Plans and gender mainstreaming

To be eligible, each legal entity that is a public body, a research organisation or a higher education establishment must have a Gender Equality Plan, covering the following minimum process-related requirements:

- Publication: a formal document published on the institution's website and signed by the top management;
- Dedicated resources: commitment of resources and in gender equality to implement the plan;

- Data collection and monitoring: sex/gender disaggregated data on personnel and students and annual reporting based on indicators;
- Training: Awareness raising/trainings on gender equality and unconscious gender biases for staff and decision-makers;
- Recommended areas to be covered and addressed via concrete measures and targets:
    - work-life balance and organisational culture;
    - gender balance in leadership and decision-making;
    - gender equality in recruitment and career progression;
    - integration of the gender dimension into research and teaching content;
    - measures against gender-based violence including sexual harassment.

A self-declaration will be requested at proposal stage, while the existence of the Gender Equality Plan is confirmed before grant signature. If all the above-mentioned mandatory requirements are met through another strategic document, such as a development plan or an inclusion or diversity strategy, it can be considered as an equivalent. This eligibility criterion does not apply to other categories of legal entities, such as private for-profit organisations, including SMEs, non-governmental or civil society organisations.

Relevant EIC Awardees must also take all measures to promote equal opportunities between men and women in implementing the action and, where applicable, in line with their Gender Equality Plan. They must aim to achieve, to the extent possible, a gender balance at all levels of personnel assigned to the action, including at supervisory and managerial level.

Financial support to third parties

Where the specific call conditions allow for financial support to third parties, the applicants must clearly describe the objectives and the expected results, including the elements listed in the application template. The following conditions must also be fulfilled:

- projects must publish their open calls widely and adhere to EU standards of transparency, equal treatment, conflict of interest and confidentiality;
- all calls for third parties and all calls that are implemented by third parties must be published on the Funding and Tenders Portal, and on the beneficiaries' websites;
- the calls must remain open for at least 2 months;

- if submission deadlines are changed, this must immediately be announced and registered applicants must be informed of the change;
- projects must publish the outcome of the calls without delay, including a description of third-party projects, the date of the award, the duration, and the legal name and country;
- the calls must have a clear European dimension.

Further conditions may be stipulated in the specific conditions for the topic.

Open Science and Data Management

For the EIC Pathfinder and Transition, the EIC funded projects must comply with the open science requirements as described in the Model Grant Agreement (article 17). These concern:

- providing immediate open access to scientific publications under the conditions required by the grant agreement;
- managing responsibly research data generated or reused by projects in line with the FAIR principles (Findable, Accessible, Interoperable and Reusable data)'. Producing and updating a data management plan; providing open access to research data under the principle 'as open as possible, as closed as necessary', that is with exceptions, under the conditions required by the grant agreement;
- providing information about the research outputs/tools/instruments needed to validate the conclusions of scientific publications or to validate/re-use research data;
- providing digital or physical access to the results needed to validate the conclusions of scientific publications, unless exceptions apply (the same as with open access to research data);
- in cases of public emergency, if requested by the granting authority, providing immediate open access to all research outputs under open licenses or, if exceptions apply, access under fair and reasonable conditions to legal entities that need the research outputs to address the public emergency .

Further, open science practices that are not mandatory but recommended, may be included in projects at the design phase, such as involving all relevant knowledge actors, including citizens, early and open sharing of research, output management beyond research data, open peer-review. This is a non-exhaustive list of practices that proposers are expected to adopt when possible and appropriate for their projects. Recommended open science practices are incentivised through their evaluation at the proposal stage. Proposers should be aware of both mandatory and recommended practices and integrate them into their proposals.

Data Management

All EIC funded projects must develop and update a data management plan in case they generate or reuse research data or any other research outputs (except for publications). All personal and non-personal data must be managed responsibly in line with the FAIR principles (Findable, Accessible, Interoperable and Reusable data), the EU General Data Protection Regulation (GDPR)[127] and the respective European, international and national legal frameworks. Personal data must not be made public unless explicitly agreed by the data subjects. Non-personal data will be open in principle but exceptions to open access apply (following the principle 'as open as possible, as closed as necessary').

EIC investments

The requirements concerning the list of non-cooperative jurisdictions (as amended from time to time) for tax purposes issued by the Council (OJ C 438, 19.12.2017, p. 5) (the "Council Conclusions") are applied by the EIC in respect of EIC Accelerator investments.

The EIC shall not enter into any contract or maintain a business relationship with any institution or individual listed on sanction lists,[128] and in particular shall not make any funds available directly or indirectly to any institution or individual listed in sanction lists.

The EIC applies the EU rules, policies and procedures, addressing the requirements in respect of money laundering, terrorism financing, tax avoidance, tax fraud, tax evasion contained in Article 155(2)(a) of the Financial Regulation and complies with the prohibition to enter into new or renewed operations with entities incorporated or established in jurisdictions listed under the relevant Union policy on non-cooperative jurisdictions or that are identified as high-risk third countries[129] or that do not effectively comply with Union or internationally agreed tax standards on transparency and exchange of information, as well as the possibility to derogate from this

[127] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation),OJ L 119, 4.5.2016, p. 1.

[128] Consolidated list of sanctions: https://eeas.europa.eu/headquarters/headquarters-homepage_en/8442/Consolidated%20list%20of%20sanctions

[129] Pursuant to Article 9(2) of Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC (OJ L 141, 5.6.2015, p. 73), as may be amended.

requirement when the action is physically implemented in one of those jurisdictions, contained in Article 155(2)(b) of the Financial Regulation.

The breach of these obligations may lead to the interruption of the equity investment process.

C. FINANCIAL and OPERATIONAL CAPACITY

Financial capacity

In multi-beneficiary actions, applicants to EIC Pathfinder and EIC Transitions calls must have stable and sufficient resources to successfully implement the projects and contribute their share. Organisations participating in several projects must have sufficient capacity to implement all these projects.

The financial capacity check will be done by the Agency on the basis of the documents you will be requested to upload in the Participant Register during grant preparation (e.g. profit and loss account and balance sheet, business plan, audit report produced by an approved external auditor, certifying the accounts for the last closed financial year, etc.). The analysis will be based on neutral financial indicators, but will also take into account other aspects, such as dependency on EU funding and deficit and revenue in previous years.

The check will normally only be done for the coordinator and if the requested grant amount is equal or greater than EUR 500 000, except for:

- public bodies (entities established as public body under national law, including local, regional or national authorities) or international organisations, and
- cases where the individual requested grant amount is not more than EUR 60 000 (low-value grant).

For more information, see Rules on Legal Entity Validation, LEAR Appointment and Financial Capacity Assessment.

Operational capacity

Applicants to EIC Pathfinder and EIC Transition calls must have the know-how, qualifications and resources to successfully implement their tasks in the project and contribute their share (including, when appropriate, sufficient experience in EU/trans-national projects of comparable size).

This assessment of operational capacity will be carried out during the evaluation of the award criterion 'quality and efficiency of the implementation', on the basis of the

competence and experience of the applicants and their project teams, including its operational resources (human, technical and other) or, exceptionally, the measures proposed to obtain it by the time of the implementation of the tasks.

If the evaluation of this award criterion leads a score above the applicable threshold, then the applicants are considered to have sufficient operational capacity.

Public bodies, Member State organisations and international organisations are exempted from the operational capacity check.

For the EIC Accelerator, the operational capacity of the applicant will be assessed during the evaluation of the award criterion 'Level of risk, implementation, and need for Union support'. Experts will judge whether each participant has, or will have in due time thanks to EIC support, sufficient operational capacity to successfully carry out their tasks in the proposed work-plan. This assessment will be based on the competence and experience of the applicant, including their operational resources (human, technical, other) and the measures proposed to secure these resources by the time of the implementation of the tasks.

Exclusion

Applicants that are subject to EU administrative sanctions (i.e. exclusion)[130] or are in one of the following exclusion situations[131] banning them from receiving EU grants can NOT participate:

- bankruptcy, winding up, affairs administered by the courts, arrangement with creditors, suspended business activities or other similar procedures (including procedures for persons with unlimited liability for the applicant's debts),
- they are in breach of social security or tax obligations (including if done by persons with unlimited liability for the applicant's debts),
- they are guilty of grave professional misconduct (including if done by persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the grant),
- they are guilty of fraud, corruption, having links to a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking (including if done by persons having powers

[130] See Article 136 EU Financial Regulation https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32018R1046&qid=1535046024012.
[131] See Articles 136 and 141 EU Financial Regulation https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32018R1046&qid=1535046024012.

of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the grant),

- they have shown significant deficiencies in complying with main obligations under an EU procurement contract, grant agreement or grant decision (including if done by persons having powers of representation, decision making or control, beneficial owners or persons who are essential for the award/implementation of the grant),
- they are guilty of irregularities within the meaning of Article 1(2) of Regulation No 2988/95 (including if done by persons having powers of representation, decision making or control, beneficial owners or persons who are essential for the award/implementation of the grant), or
- they have created under a different jurisdiction an entity with the intent to circumvent fiscal, social or other legal obligations in the country of origin or created another entity with this purpose (including if done by persons having powers of representation, decision making or control, beneficial owners or persons who are essential for the award/implementation of the grant).

Applicants will also be refused if it turns out that:[132]

- during the award procedure they misrepresented information required as a condition for participating or failed to supply that information, or
- they were previously involved in the preparation of the call and this entails a distortion of competition that cannot be remedied otherwise (conflict of interest).

[132] See Article 141 EU Financial Regulation https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32018R1046&qid=1535046024012.

D. AWARD CRITERIA

If admissible and eligible, the proposals for Coordination and Support Actions will be evaluated and ranked against the following three award criteria:

Excellence	Impact	Quality and efficiency of the implementation
✦ Clarity and pertinence of the project's objectives. ✦ Quality of the proposed coordination and/or support measures including soundness of methodology.	✦ 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 maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.	✦ 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.

For full proposals, each criterion will be scored out of 5. The threshold for each individual criterion will be 3. The overall threshold, applying to the sum of the three individual scores, will be 10.

For other types of actions, including 'Research and Innovation Actions' (EIC Pathfinder and EIC Transition) and 'Innovation and Market Deployment Actions' (EIC Accelerator), the award criteria are detailed in the relevant call sections.

E. EVALUATION REVIEW PROCEDURE

For EIC Pathfinder, EIC Transition and EIC Accelerator[133] if the consortium believes that the evaluation procedure was flawed, the coordinator can submit a complaint (following the deadlines and procedures set out in the evaluation result letter).

Only the procedural aspects of an evaluation may be the subject of a request for an evaluation review. The evaluation of the merits of a proposal will not be the subject of an evaluation review. [134]

A request for an evaluation review must relate to a specific proposal and must be submitted within 30 days after the beneficiary accesses the evaluation results. The maximum size limit of the request is 5 000 characters. Notifications of evaluation results which have not been opened in the Funding and Tenders Portal within 10 days after sending are considered to have been accessed and that deadlines will be counted from the date of opening/access (see also Funding and Tender Opportunities Portal Terms and Conditions).

An evaluation review committee will provide an opinion on the procedural aspects of the evaluation. The evaluation review committee may recommend a re-evaluation of the proposal, to be carried out by evaluators who were not involved in the previous evaluation, or a confirmation of the initial evaluation.

[133] Applicants to EIC Accelerator have also possibility of rebuttal during resubmission. See Section IV for the relevant provisions.
[134] See Article 30 (2) of Regulation (EU) 2021/695.

Annex 3 Fast Track scheme to apply for the EIC Accelerator

The 'Fast Track' scheme is a specific process applicable to the EIC Accelerator. It provides for a specific treatment of proposals that result from existing Horizon Europe or Horizon 2020 projects.

Under the Fast Track scheme, applicants do not apply directly to the EIC Accelerator call (Section IV). Instead, a project review is carried out by the responsible funding body to assess the innovation or market deployment potential of an existing project, and to decide whether the project is suitable for support under the EIC Accelerator.

The project review – implemented by the funding body responsible for the programme – must be conducted using:

- award criteria equivalent to the ones set out for the short application stage of the EIC Accelerator (Section IV), centred on the underlying idea of that potential new action;
- an evaluation process that guarantees an independent assessment of proposals in compliance with Article 48 of the Horizon Europe Regulation.

The responsible funding body can submit the outcome of the projects review to the EIC Accelerator, if the project review concludes that the following conditions are met:

- the proposal meets the first two criteria of the EIC Accelerator (i.e. excellence and impact);
- there is no duplication of funding of activities to be supported under the EIC Accelerator with the existing grant; and
- the applicant meets the eligibility criteria for the EIC Accelerator.

Fast Track applicants will then be invited to prepare a full proposal for the EIC Accelerator to one of the cut-off dates within the next 12 months following initial review. Applicants are free to decide to which cut-off date (within the next 12 months) they wish to apply. They will receive support through the EIC artificial intelligence based IT platform and coaching as specified in Section IV.

Full proposals to the EIC Accelerator stemming from the Fast Track scheme will be assessed as set out in Section IV, and will be treated in exactly the same way as all other full proposals.

In 2023, the funding bodies and schemes which are eligible for the Fast Track for EIC Accelerator cut-off dates are:

- The EIC Pathfinder and EIC Transition projects (including under EIC pilot) managed by the Agency;
- Relevant schemes managed by the Knowledge and Innovation Communities (KICs) supported by the European Institute of Innovation and Technology (EIT), as identified as relevant by each KIC;
- Funding schemes for SMEs supported under the Eurostars-2 Joint Programme and the Partnership on Innovative SMEs managed by the Eureka secretariat and relevant national bodies;
- Companies supported by the WomenTech.EU programme managed by the Agency;
- Companies awarded a grant under Horizon 2020 under the EIC pilot Accelerator managed by the Agency.[135]

These funding bodies are responsible for implementing the Fast Track scheme in accordance with the above provisions. They may decide not to implement the scheme or to introduce it at a later stage.

Subject to experience with the Fast Track scheme in 2021-2023, the scheme may be opened to other parts of Horizon Europe and Horizon 2020, and to the funding bodies responsible for their implementation.

The EIC website will provide up to date information about how the Fast Track scheme is being implemented by the relevant funding bodies.

[135] For previous beneficiaries of a grant, the Fast Track scheme cannot be used to request grant-only support.

Annex 4 Pilot Plug-in scheme to apply for the EIC Accelerator

The pilot Plug-in scheme is a specific process applicable to the EIC Accelerator only. Its process is equivalent to the Fast Track, as described under Annex 3. However, the Plug-in scheme applies to proposals that result from existing national or regional programmes.

Under the Plug-in scheme, applicants do not apply directly to the EIC Accelerator call (Section IV). Instead, a project review is carried out by the certified national or regional programme to assess the innovation or market deployment potential of an existing project supported by the programme, and to decide whether the project is suitable for support under the EIC Accelerator.

The project review - implemented by the funding/managing body responsible for the programme or by other appointed authority under the responsibility of the funding body - must be conducted using:

- award criteria equivalent to the ones set out for the short application stage of the EIC Accelerator (Section IV), centred on the underlying idea of that potential new action;
- equivalent evaluation processes that guarantee an independent assessment of proposals in compliance with Article 48 of the Horizon Europe Regulation.

The responsible funding/managing body, or other appointed authority under the responsibility of the funding body, can submit the outcome of the project review to the EIC Accelerator, if the project review concludes that the following conditions are met:

- the proposal meets the first two criteria of the EIC Accelerator (i.e. excellence and impact);
- there is no duplication of funding of activities to be supported under the EIC Accelerator with the existing grant allocated at national or regional level; and
- the applicant meets the eligibility criteria for the EIC Accelerator.

Applicants will then be invited to prepare a full proposal for the EIC Accelerator to one of the cut-off dates within the next 12 months following initial review. Applicants may decide to which cut-off they apply. They will receive support through the EIC artificial intelligence based IT platform and coaching as specified in Section IV.

Full proposals to the EIC Accelerator stemming from the Plug-in scheme will be assessed as set out in Section IV (above) and will be treated exactly the same way as all other full proposals.

The pilot Plug-in scheme will be implemented by a limited number of programmes, which have been assessed by a group of experts and certified by the Commission. To guarantee the effective implementation of this pilot, only public programmes – both national and regional – have been considered initially. The experts assessed the programmes[136] submitted by the Member States and Associated Countries, their related national or regional evaluation procedures, and whether the project review is equivalent to the assessment of proposals under the EIC Accelerator.

The Commission certifies the programmes that are deemed suitable for the Plug-in scheme based on the experts' assessment. The experts will collaborate with the EIC Plug-in contact points (representatives of Member States and Associated Countries) who will have to provide accurate information regarding the programmes. Only programmes for which all the key elements and information are provided by the EIC Plug-in contact points will be considered for the certification.

Following the results of a mapping of national and regional programmes, the first set of submission of programmes by Member States, and an independent assessment by experts, a first set of programmes have been certified to be compliant with the requirements of the Plug-in scheme. Further programmes will be assessed during 2023 and subject to this assessment, may also be certified to be compliant with the Plug-in scheme. A full list of certified programmes for the Plug-in scheme is available on the EIC website.

The Commission services[137] will be notified if any future changes in the criteria and/or evaluation of the regional or national programmes may impact the assessment and certification of those programmes.

The Commission may withdraw the certification, if it finds out that:

- false information were used to obtain the certification;
- the project review did not comply with the provisions as set out in the EIC work programme.

The funding/managing bodies in charge of these national/regional programmes, or other appointed authority under the responsibility of the funding body, are responsible for implementing the Plug-in scheme in accordance with the above provisions. They may decide not to implement the scheme or to introduce it at a later stage. A

[136] "Programme" in this context is to be understood in the widest possible sense; in particular, it refers to all systems and institutions of organised services, activities and opportunities to support and scale up high impact innovations at the national or regional level.

[137] From the Directorate General in charge and/or Executive Agency to which the tasks/programme will be delegated.

coordination among the different national and regional funding bodies will have to be ensured at national level to avoid duplication of the proposals.

After the certification process is concluded, the responsible funding/managing bodies, or other appointed authorities under the responsibility of the funding body, will be entitled to present the projects that have passed the project review and were funded under those certified programmes. In the pilot phase, a limitation for the number of projects proposed by each programme and each Member State or Associated Country will be agreed.

Plug-in proposals may be submitted by eligible programmes following the publication of this work programme and once programmes have been certified as eligible from at least two thirds of the Member States. Once submitted to the Agency, Plug-in applicants will then be treated in the same way as other applicants who have passed the short proposal stage of the EIC Accelerator evaluation, and may submit their full applications to any of the cut-offs in the 12 month period following the submission of their Plug-in application.

The pilot Plug-in scheme will be subjected to an assessment after the first implementation to verify the effectiveness of the process and the quality of the proposals, in view of the renewal of the Plug-in process under subsequent cut-offs and possibly the inclusion of other programmes.

Annex 5 EIC Booster grants for EIC Pathfinder and EIC Transition Awardees

In line with Article 47(2) of the Horizon Europe Regulation,[138] with the aim to implement Portfolio coordinating activities or to nurture innovation out of these, EIC Booster grants of a value not exceeding EUR 50 000 may be awarded outside any call for proposal to projects already selected under the Pathfinder or where relevant Transition calls.

Potential beneficiaries are the Awardees of EIC Pathfinder projects (including grants resulting from certain EIC pilot Pathfinder, FET-Open and FET-Proactive calls, see Section II) and of EIC Transition projects.

Additionally, and for the purpose of further assessing innovation potentialities and explore potential pathways to commercialisation out of these projects preliminary findings and results, potential beneficiaries may also be Awardees, Technology Transfer Offices, EIC Inventors and other third parties provided with the necessary access rights or entrusted with any such task by the concerned awardee. Booster grants may in particular support the development of potential innovation stemming from the future EIC Market Place. Complementary activities to explore potential pathways to commercialisation could include, but are not limited to:

- definition of a commercialisation process;
- market and competitiveness analysis;
- technology assessment;
- verification of innovation potential;
- consolidation of IP rights;
- business case development;
- exploratory / preparatory work for creating start-ups or spin-offs;
- Support for hosting by a public or private incubator/ accelerator.

Portfolio activities could include, but are not limited to:

- defining common objectives and activities;
- building synergies within the EIC Portfolio and with any outside relevant partners, including within the EIT Community;
- engaging strategic partners to overcome common challenges;

[138] See also Article 195(e) of the Financial Regulation.

- (co)-organising events;
- maximising data sharing;
- raising visibility of the EIC Portfolio's community and the EIC.

These EIC Booster grants do not fund research, or activities that were already foreseen in the original project or that are already funded by other EIC instruments. A maximum of three EIC Booster grants can be awarded for each EIC Pathfinder project and more than three may be awarded in exceptional and duly justified cases. A maximum of one EIC Booster grant can be awarded for each EIC Transition project. Any such EIC Booster grant can be awarded to an individual EIC awardee or a group of EIC Awardees.[139]

EIC Awardees or other potential beneficiary as indicated above can be invited to apply for an EIC Booster grant following a positive recommendation from an EIC Programme Manager or a project review. Each proposal will be assessed in accordance with Article 29, paragraph 2, of Horizon Europe Regulation taking into account the following considerations ("award criteria"):

For activities to explore potential pathways to commercialisation:

- Timeliness and pertinence of the activities proposed (Excellence);
- Potential of the proposed deep-tech innovation to create new market or to solve pressing societal needs / problems (Impact);
- Expertise, capabilities and motivation of the applicants to take this innovation forward to the market (Quality and efficiency of implementation).

For portfolio activities:

- Contribution of the activity to the objectives of the EIC Portfolio (Excellence);
- Timeliness of the activity proposed to maximise its impact (Impact):
- Engagement of EIC Portfolio's projects and relevant external partners (Quality and efficiency of implementation).

Each proposal will be evaluated by a mixed committee composed of:

- An EIC Programme Manager.
- An external expert selected from a limited pool of trained experts, covering the broad technology areas.
- Either an EIC Project Officer or a second external expert.

[139] This includes affiliated entities that are participating in the Pathfinder or Transition projects.

The committee will assess whether the proposal meets each of the award criteria and will give a GO or NO GO. Proposals receiving at least two GO will be selected. Proposals not receiving at least two GO will be rejected. The committee may invite a rejected applicant to resubmit an adjusted proposal

The final decision will be motivated and communicated to the applicant and the Programme Committee be informed. Successful applicants will be invited for grant preparation, which might take into account adjustments proposed by the EIC Programme Manager.

Following successful grant preparation, the Agency will award the EIC Booster grant (Coordination and Support Action)[140] to cover the eligible costs necessary for the implementation of the proposed activities. The funding rate of this grant will be 100% of the eligible costs. Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021- 2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025)

[140] This may be a new grant agreement or an amendment to the existing grant agreement.

Annex 6 Additional provisions concerning Intellectual Property for EIC Pathfinder and EIC Transition

In accordance with the Horizon Europe Regulation,[141] the Work Programme may provide for additional exploitation obligations, in particular to put more emphasis on exploitation of results, and highlight the role the Commission should play in identifying and maximising exploitation opportunities in the Union.

Together with specific intellectual property rules provided for under Annex 2 in relation to emergency situations and standardisation, the following rules will apply to EIC Pathfinder and EIC Transition actions in accordance with the applicable Model Grant Agreement adopted by the Commission.

1. Definitions

The following definition is complementing those provided in the Glossary in the introductory section of this Work Programme for the purpose of this Annex.

EIC Inventors: with reference to information and results owned by any EIC awardee that is a not-for-profit legal entity, any of their employees and subcontractors, established in a Member States or Associated Country, and appearing or entitled to appear as inventor in any corresponding publication or patent filing.

2. Exchange of information for the purpose of EIC portfolio activities

2.1 – Access to information about preliminary findings and results

a. At any time and without prejudice to the EIC awardee's ownership and its rights and obligations to protect personal data and results according to the grant agreement, the EIC Programme Manager may request any EIC awardee to make available through the EIC Marketplace information on preliminary findings and results generated by the action, subject to paragraphs b) and c) below, with the aim to probe their potential for further innovation.

b. Where any such preliminary finding or result was not already made public through agreed dissemination activities or a patent or protection by any other intellectual property right, that information must be earmarked and treated by the Agency as confidential and disseminated only to:

- other EIC Awardees, bound by an EIC grant agreement or an EIC contract, that refers to or includes the obligations detailed under section 2.2 below;

[141] In accordance with Recital (85) and notably the second indent of Article 39(1) of Horizon Europe Regulation.

- EIC inventors having signed a non-disclosure agreement with the Agency, providing for the obligations detailed under section 2.2 below;
- other member of the EIC Community established in a Member State or an Associated Country and having signed a non-disclosure agreement with the Agency, providing for the obligations detailed under section 2.2.

Where based on that confidential information any of these entities request disclosure or access to the underlying detailed data and results, the EIC awardee may refuse it based on its legitimate interests, including commercial exploitation and any other constraints, such as data protection rules, privacy, confidentiality, trade secrets, Union competitive interests, security rules or intellectual property rights.

c. EIC Awardees may object to the obligation provided for under paragraph b) when:
    - committing to either publish or patent or protect by any other intellectual property right and without unreasonable delays, or
    - demonstrating concrete exploitation of the said preliminary findings and results, subject to initial discussion with and final agreement of the Agency on the corresponding update of the Plan for dissemination and exploitation referred to in Section 3.1.

2.2 – Non-disclosure obligations

Where EIC Awardees are informed on or given access or disclosure to any preliminary findings, results or other intellectual property generated by other EIC actions, and where this information is earmarked as confidential in accordance with section 2.1.b, they must:

- keep it strictly confidential; and
- not disclose it to any person without the prior written consent of the owner, and then only under conditions of confidentiality equal to those provided under this section; and
- use the same degree of care to protect its confidentiality as the EIC awardee uses to protect its own confidential information of a similar nature; and
- act in good faith at all times; and
- not use any of it for any purpose other than assessing opportunities to propose other research or innovation activities to the EIC, or any other initiative agreed by the owner.

The EIC awardee may disclose any such information to its employees and, with the prior authorisation of the owner, to its subcontractors established in a Member State or an Associated Country and:

- who have a need to access it for the performance of their work with respect to the purpose permitted above; and
- who are bound by a written agreement or professional obligation to protect its confidentiality in the way described in this section.

No obligations are imposed upon the EIC awardee where such information:

- is already known to the EIC awardee before and is not subject to any other obligation of confidentiality; or
- is or becomes publicly known through no act by or default by/of the EIC awardee; or
- is obtained by the EIC awardee from a third party and in circumstances where the EIC awardee has no reason to believe that there has been a breach of an obligation of confidentiality.

The restrictions in this section do not apply to the extent that any such information is required to be disclosed by any law or regulation, by any judicial or governmental order or request, or pursuant to disclosure requirements relating to the listing of the stock of the EIC awardee on any recognised stock exchange.

Upon the end or termination of the grant agreement or of the participation of the EIC awardee, it must immediately cease to use the said information, except if otherwise directly agreed with the owner, or if the EIC awardee remains a member of the EIC Community referred to under section 2.1.b.

The provisions of this section will be in force for a period of 60 months following the end or the termination of the grant agreement or of the participation of the EIC awardee, at the end of which period they will cease to have effect.

3. Specific provisions on intellectual property and related dissemination and exploitation activities

3.1 – Plan for exploitation and dissemination

EIC Awardees must report to the Agency on their exploitation and dissemination activities:

- in accordance with the grant agreement, together with any updated version of the plan for exploitation and dissemination;

- within 30 days upon request from the EIC Programme Manager for the purpose of EIC portfolio activities.

The Granting Authority may also request an update of the plan for exploitation and dissemination of the results at any time during the implementation of the action.

EIC Awardees must address and agree in their Consortium agreement on all related intellectual property issues, from ownership and co-ownership of results to the consortium's internal approval process for their dissemination. EIC Awardees must also identify therein any pre-existing technology fitting the action's needs and objectives and try to reach appropriate licensing agreement between them to prevent research funding redundancy.

The EIC Awardees are deemed to have signed the Consortium agreement at the date of the signature of this grant agreement. The Agency may require a copy at any time in accordance with the grant agreement.

3.2 – Dissemination activities

Each EIC awardee will propose and undertake dissemination activities of the plan for exploitation and dissemination agreed by the Agency with the aim of supporting innovation in the European Union and fostering the development of the EIC Community, opting for publications as main route to bring technical and scientific knowledge to the public.

When approving the plan for exploitation and dissemination of the results or any update, the Agency may subject any proposed dissemination activity to one or a combination of the following conditions:

- the prior assessment of any innovation potential of the results to be disseminated,
- the prior protection of the result to be disseminated, in accordance with the grant agreement, the cost being eligible;
- the simultaneous unrestricted dissemination through the EIC Marketplace.

Where the Agency disagrees to a dissemination activity, it will actively assist the EIC Awardees to achieve compliance with the required conditions, without unreasonable delay and in due time, notably by proposing complementary EIC support for exploitation or a support of the EIC Business Acceleration Services, as detailed and referred to under section 3.5. Where the Agency agrees to a dissemination activity, it will abide to the grant agreement.

The Agency is hereby entrusted with the right to also disseminate and promote the exploitation of any results that are made public by the EIC awardee or with its assent.

3.3 – Exploitation of results

EIC Awardees must use their best efforts to exploit their results or have them exploited by a third party, in priority those established in a Member State or an Associated Country, including through transfer or licensing. The granting authority may object to a transfer of ownership or the licensing of results under certain conditions as detailed in the EIC grant agreement.

EIC Awardees must report on any exploitation operation at:

- the reporting periods provided for in the grant agreement;
- periodicity agreed at the end of the action together with the final exploitation and dissemination plan;
- within 30 days upon request from the Agency, within 4 years after final payment.

Each EIC awardee agrees that any of its EIC Inventors is entrusted upon signature of the grant agreement with the necessary access rights to the result they have contributed to for the purpose of further developing and exploiting it. If the EIC awardee provides support to the EIC Inventor for any such exploitation, royalties may be shared with the EIC awardee in mutually beneficial terms, provided the conclusion of any such agreement does not prevent the EIC Inventor(s) to exercise its(their) rights. If the awardee does not provide support, or that support is manifestly inadequate, then by default the access rights are royalty free.

The EIC Inventor must inform the beneficiary in due time before any exploitation activity they intend to undertake, and report to the beneficiary on the implementation

If the beneficiary considers that the exploitation activity could negatively affect its own exploitation activities:

- In the absence of any approved exploitation and dissemination plan, the EIC awardee may request to the Contracting Authority the suspension of the access rights of a given EIC inventor, by demonstrating that their use puts negatively at stake their future strategy of or ongoing valorisation activities.
- Where an exploitation and dissemination plan has been approved, the EIC awardee may directly suspend the access rights of a given EIC inventor to the condition that their exercise can negatively affect the implementation of the said approved plan. The EIC inventor may request the Contracting Authority to lift

that suspension by demonstrating that the exercise of the access rights does not affect the said plan.

3.4 – Failure to exploit or disseminate

The Agency is entrusted with the right to disseminate and promote the exploitation of results that have not been made public through dissemination activities or patent or protection by any other IPR, where the EIC awardee owning it:

- does not provide any information regarding exploitation or dissemination of those results; or
- neither intends to exploit nor disseminate those results; or
- declares to continue research activities on those results but without a view of their subsequent exploitation; or
- where, despite its best efforts, no exploitation or dissemination takes place within the delays provided in the final exploitation and dissemination plan and in the absence of any demonstrated alternative exploitation or dissemination opportunity.

Where the EIC awardee continues to oppose to the dissemination by the Agency or refuses to provide any data or document necessary for the said dissemination, the Agency will impose penalties in accordance with the grant agreement.

3.5 – Possible additional or complementary EIC support for exploitation

Any EIC awardee or group of EIC Awardees or the consortium of an EIC Pathfinder action, including EIC inventors, may be awarded an additional EIC Booster grant of up to EUR 50 000 to undertake limited EIC transition activities in relation to any of its results as set out in Annex 5.

This additional grant may be shared with or fully awarded to a third-party partaking in or undertaking the said activities, under the condition that the said third-party respects the ownership rights of the EIC awardee and confidentiality conditions detailed in this Annex.

Beneficiaries, including EIC inventors, are eligible to apply for EIC Transition and EIC Accelerator calls under specific conditions detailed therein and to benefit from EIC Business Acceleration Services as set out in the relevant sections of this Work Programme.