

GRAND ENOV+

The European Innovation Council – Opportunities in the French German Context
Online session – May 5th 2022



UNION EUROPÉENNE
Fonds Européen de Développement Régional



L'Europe s'invente chez nous





How to produce more disruptive innovations and to reinforce ecosystems of innovation

European Innovation Council (EIC)

- Support disruptive innovations and creation of new markets

€ 10.1 Bilions

European Innovation Ecosystems (EIE)

- Create or reinforce connexion between regional and national stakeholders and develop synergies with European ones

€ 0.5 Bilions

European Innovation and Technology Institute (EIT)

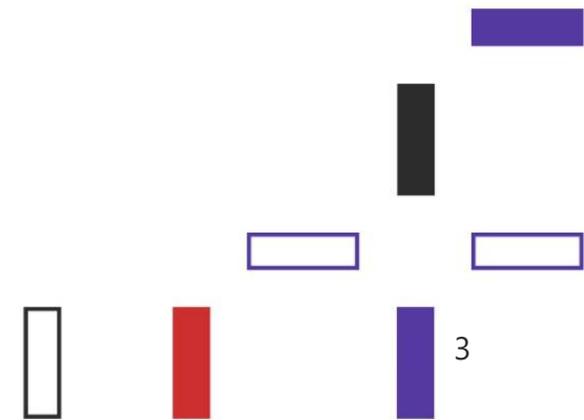
- Create communities between academics and companies to generate more innovation, knowledge and accelerate development of SMEs

€ 3 Bilions





The European Innovation Council Objectives and actions





EIC ?

Performances

- Highly performing european research but few transformation into disruptive innovations.
- Lack of disruptive innovations that will answer to emerging markets of new markets

Funding innovation

Lack of funding (2 "Death valleys") for :

- **transition phase , between laboratoies and companies;**
- Tranformation of startups into scaleups (« *scaling up* »)

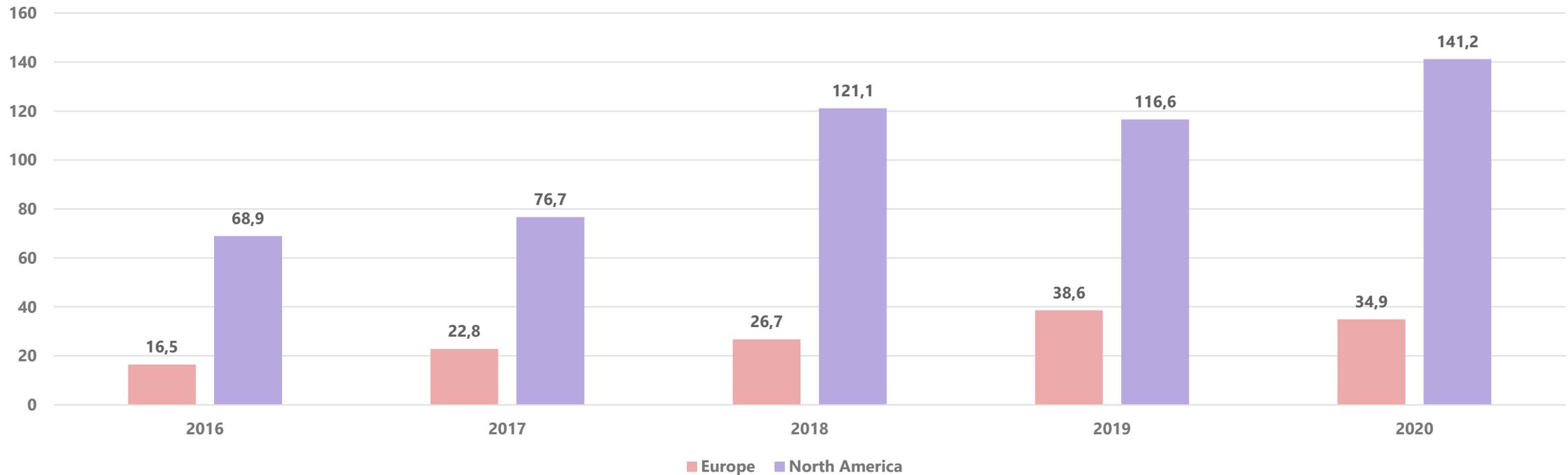
Ecosystems of Innovation

- Many regional and national ecosystems but lack of cooperation at european level ;
- **Need to integrate innovation and talents at european scale**

Lack of Funding for innovative startups and SMEs

Europe = 20% of the annual investments from US funds ...

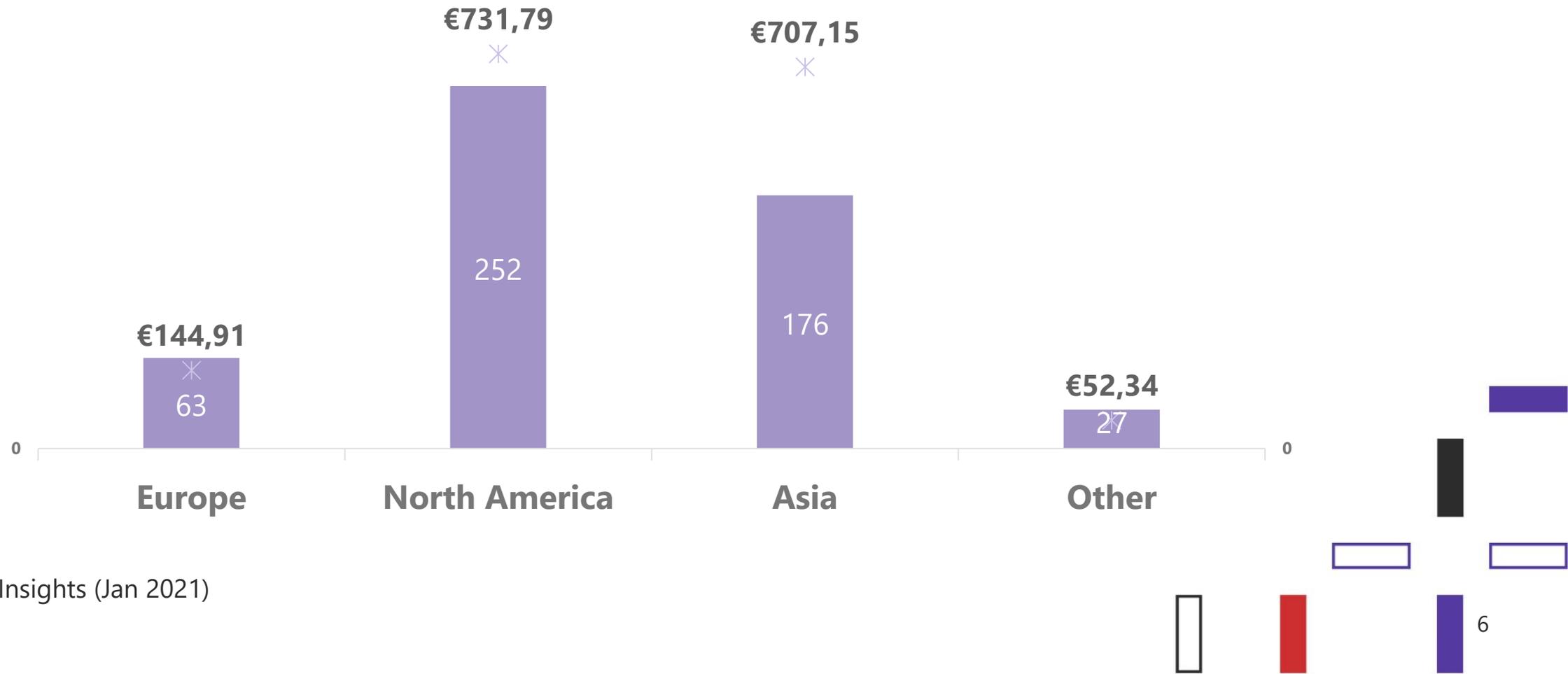
Capital invested by year (B\$)



Source: [Invest Europe, Pitchbook]

Unicorns ?

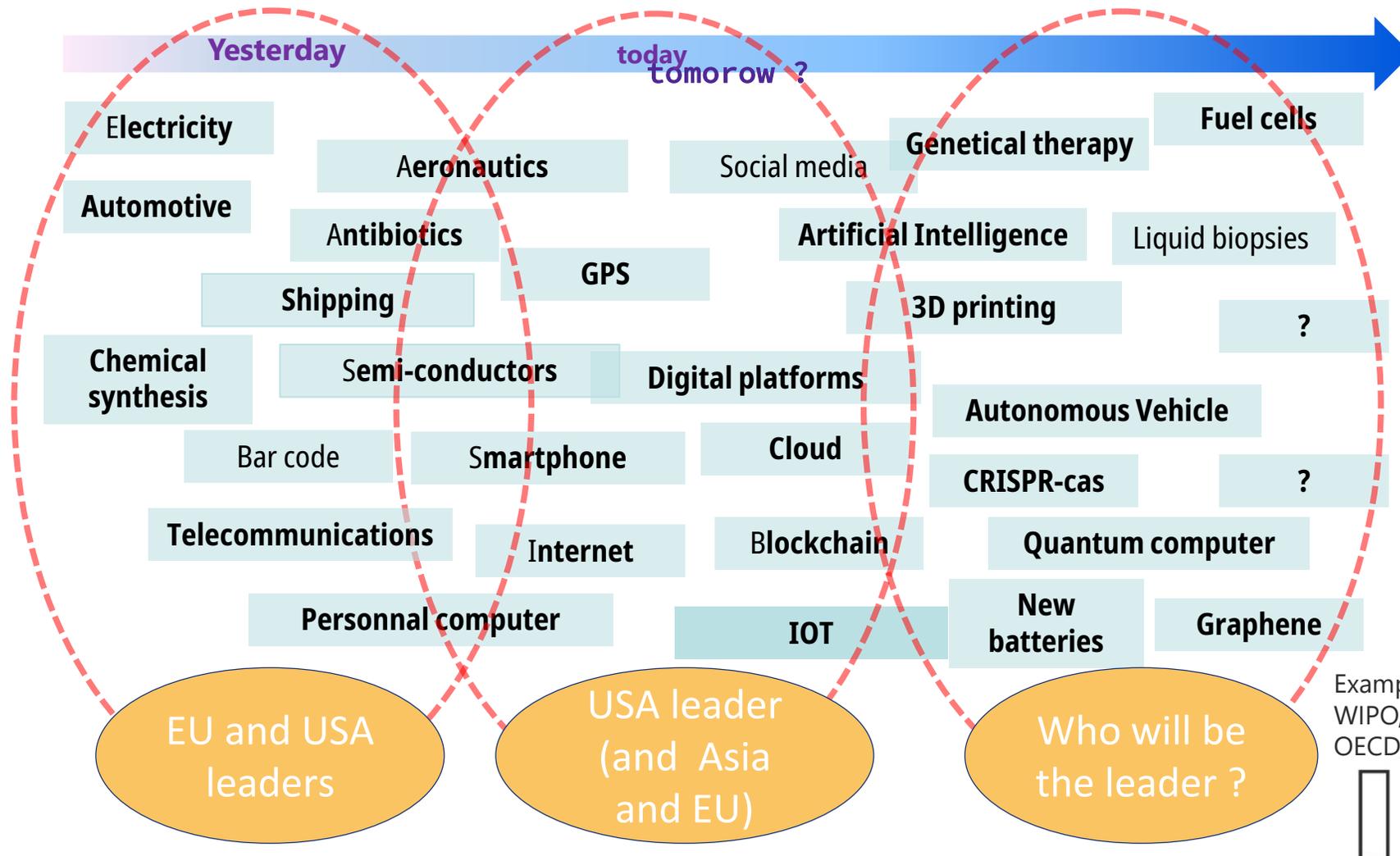
Number and consolidated value of Unicorns (per region)



Source: CB Insights (Jan 2021)



Key Issue: Who will be the leader of Tomorrow ?





Europe's most ambitious innovation initiative ever launched !

- **10 billion program to identify, develop and accelerate radical innovation for rapid market growth**
- **Unique in the world** - framing research into **emerging technologies** to support **market deployment**
- **Creation of the EIC Fund**, the largest venture capital investor in Europe (over €3 billion) Innovator-focused, driven by a Board of recognized innovators
- **Proactive approach** with flexible funding
- **Strengthening** the European innovation ecosystem





Impact of EIC pilot (including impact of the SME instrument)



- Growing support for startups and deep tech SMEs
- **5,700 startups and SMEs supported since 2014**
- **293 supported under the enhanced pilot** (October 2019 - October 2020) - 164 in 2021 (Accelerator)
- **159 + 117 selected** under the blended finance option for more than €1 billion in equity investments
- Growth in the number of start-ups supported and led by women



- Attracting other investors to the rounds
- **9.6 billion in follow-on investments** attracted by EIC-backed companies;
- **141 EIC Fund investment** decisions already made - 19 deals signed to date
- **5 unicorns (worth over €1 billion);**
- **91+ centaurs (worth €100m+) after EIC support.**

Meeting 90% of the Sustainable Development Goals (SDGs)

Main reference themes:

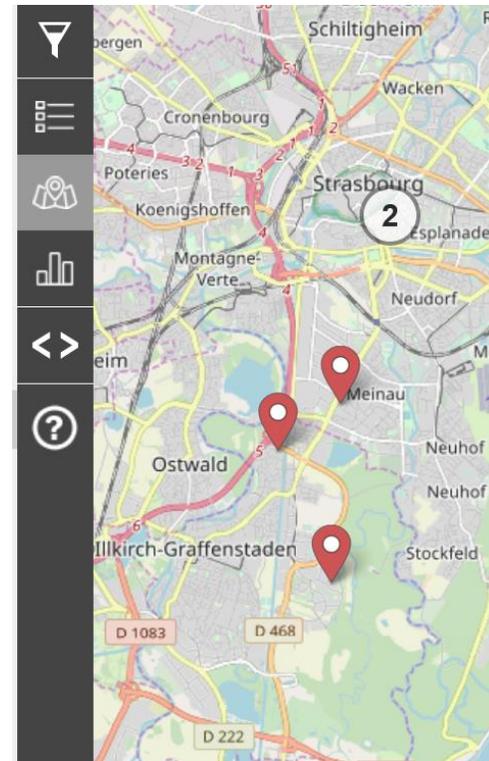
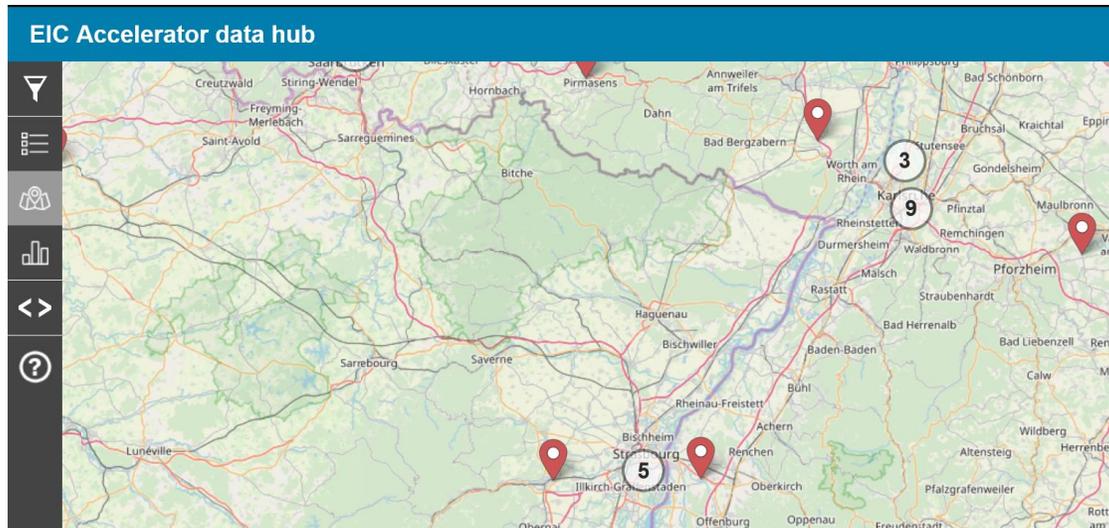
- **30% in the Green Deal context;**
- **30% in the digital context;**
- **30% in the health sector (including "COVID solutions").**



EIC pilot and SME instrument funded projects



<https://sme.easme-web.eu>



[Direct link](#)

SPARTHA MEDICAL SAS

<https://sparthamedical.eu>

Project: Innovative multifunctional and smart coatings to prevent medical device related infections

Project Acronym: SPARTHACUS

Project Type: Full blended

Infections represent one of the major risks of surgery implants and the main cause of implant rejection, affecting over 5% of patients who undergo an implant surgery (around 2M patients in the EU). At SPARTHA Medical, created in 2019 as a spin-off of INSERM Biomaterials Unit (Strasbourg), we developed a multifunctional coating with antimicrobial and anti-inflammatory properties to prevent infections in implants and surgical care. In addition to this medical coating to be used directly in hospitals, we developed a second product – a biocompatible, eco-friendly spray with antibacterial & antiviral properties for general and daily use. We also offer a customized coating development service for medical device manufacturers which leads to recurring licensing. Our coating platform is so versatile the applications are endless. We are also integrating the development service to electronics and cosmetics companies. We have signed 7 contract agreements so far, and 2 more in advanced negotiations

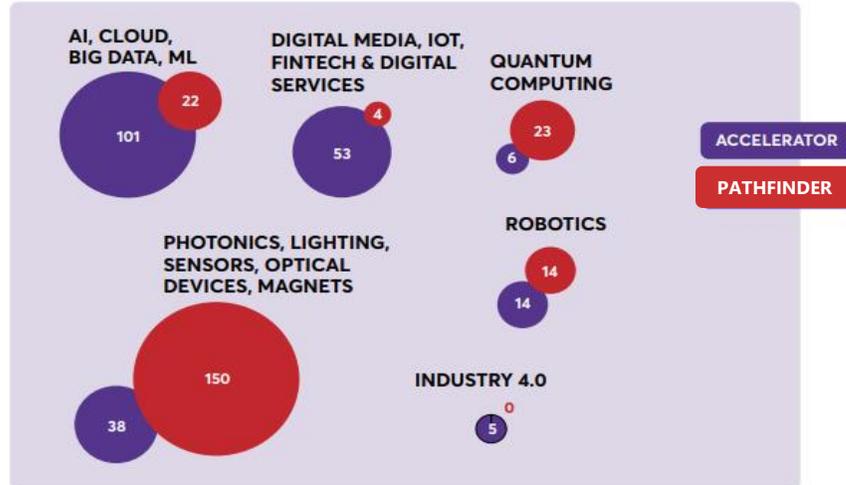
Topic: Engineering and technology

Total budget: 18.544.600 €

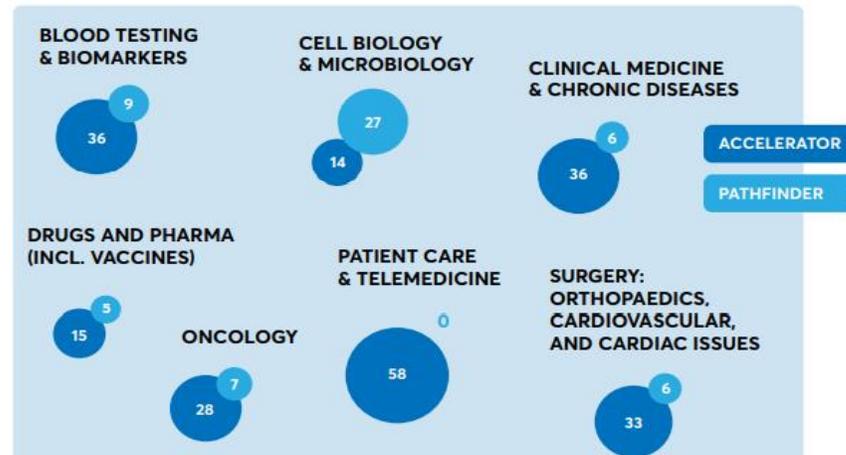
EU Contribution: 4.133.750 €

PATHFINDER and ACCELERATOR projects: breakdown per thematic (2018 – 2021)

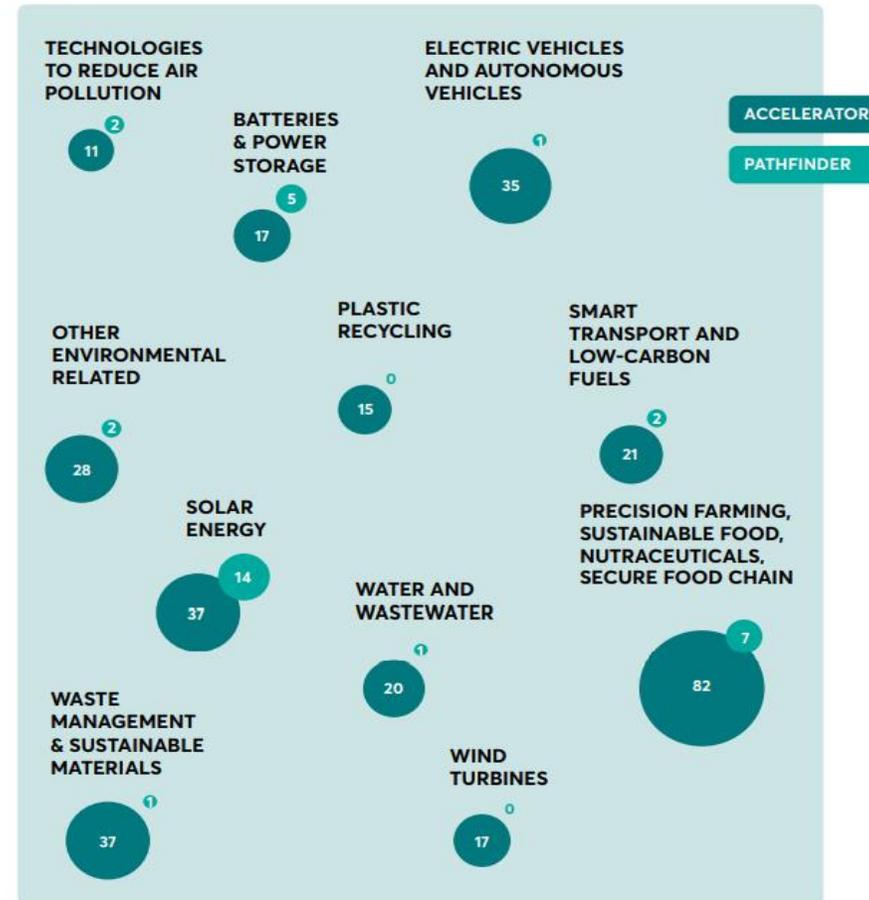
For Digital and Industry 5.0



For Health

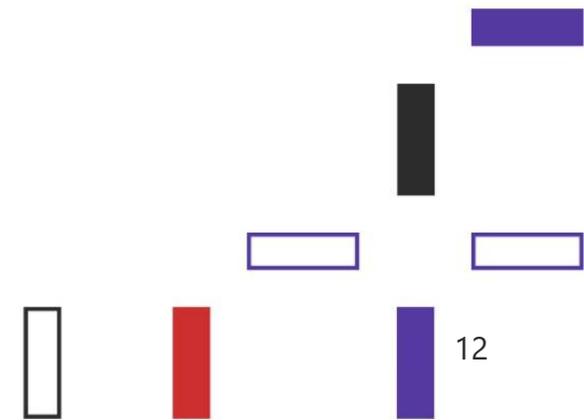


For Green





EIC in the program Horizon Europe



EIC and Horizon Europe (2021-2028)



A one-stop shop for breakthrough and disruptive innovators

- Open to all innovators, whatever their field, at any time.
- Flexible type of funding, targeted to needs and strategic challenges
- Highly competitive for high potential European innovators

Agile financing from idea to investment

- **The Pathfinder for advanced research on emerging technologies.**
- **Transition activities from the laboratory to the commercial environment**
- **The Accelerator for innovative start-ups and SMEs**

Building ecosystems and communities

- Access to business acceleration services (coaches, mentors, companies, investors and knowledge partners)
- EIC programme managers to develop breakthrough visions, manage portfolios and connect to ecosystems
- Attracting other investors (VCs, large companies, etc.)



EIC: Three instruments to accelerate R&I

Pathfinder (TRL 1-4)

Initial research on advanced technologies
Grants of up to €3/4 million
Successor to FET (Open & Proactive)

Transition (TRL 4-6)

Technology maturity: from proof of concept to validation
Operational capability and market maturity
Grant: up to € 2,5 million

Accelerator (TRL 5/6 to TRL 9)

- Technological and business development of disruptive innovations (deep-tech)
- Funding: (grant up to 2,5 m€; equity up to 15 m€)

- **Mission to identify, develop and deploy high-risk innovations of all kinds**
- **Focus on cutting-edge, market-creating and deep-tech technology**
- **Led by the EIC Board of Directors composed of recognized innovators (entrepreneurs, investors, researchers, ecosystem)**
- **Business acceleration services (coaches/mentors, corporations, investors, ecosystem) Proactive management (roadmaps, reviews, reorientations, etc.) with EIC Programme Managers**
- **Possible follow-up funding for projects under Horizon (ERC, EIT, collaborative) and national programs**

Challenges and open programs

Top-down approach

- **€167 million for 6 Pathfinder Challenges:**
 - Carbon dioxide & nitrogen management and valorization;
 - Mid-long term, systems-integrated energy storage;
 - Cardiogenomics;
 - Healthcare continuum technologies;
 - DNA-based digital data storage;
 - Alternative quantum information processing, communication, and sensing
- **€60.5 million for 3 Transition Challenges:**
 - Green digital devices for the future;
 - Process and system integration of clean energy technologies;
 - RNA-based therapies and diagnostics for complex or rare genetic diseases
- **€537 million for two major Accelerator Challenges:**
 - Technologies for Open Strategic Autonomy
 - technologies to address climate change ('Fit for 55')

bottom-up approach. Any field of science, technology, or application without predefined thematic priorities



" EIC Business Acceleration Services"

- Personalised support services *"Coaching and mentoring"*
- *EIC Corporate days*
- *EIC Procurers days*
- *EIC investor matchmaking/ pitching*
- *Women leadership program*
- *GHG emissions program*
- *Overseas Trade Fairs*
- Et many other ones ...



Calls for proposals in 2022

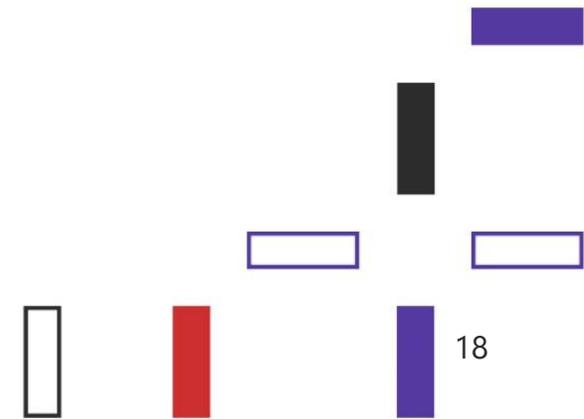


Accélérateur - Ouvert (ou "blanc")	Propositions simplifiées - présentées à tout moment ~ 800 par mois	~€630m (~subvention/investissement)
Accélérateur – Défis ("Challenges") <ul style="list-style-type: none"> • Technologies pour l'autonomie stratégique "ouverte" • Technologies pour l'objectif 'Fit for 55' 	Dates limites pour les propositions complètes : 23 Mars, 15 Juin, 5 Octobre	~€537m (~subvention/investissement)
Pathfinder - Ouvert ou "blanc"	Date-limite 3 Mai	~€183m
Pathfinder - Défis ("Challenges") <ul style="list-style-type: none"> • Carbon dioxide & Nitrogen management and valorisation • Mid-long term, systems-integrated energy storage • Cardiogenomics • Healthcare Continuum technologies • DNA-based digital data storage • Alternative Quantum Information Processing, Communication, and Sensing 	Date limite 19 Octobre	~€167m
Transition – Ouvert ou "blanc"	Dates limites 4 Mai, 28 Septembre	~€71m
Transition – Défis ("Challenges") <ul style="list-style-type: none"> • Green digital devices for the future • Process and system integration of clean energy technologies • RNA-based therapies and diagnostics for complex or rare genetic diseases 		~€60m



EIC Transition supports different pathways... These are illustrative examples

- A **‘Transition to Technology’** to advance research up to TRL 5/6. This involves mainly **strategic technologies** that need more time to mature while improving also the Market Readiness Level.
- A **‘Transition to Market’** for projects **led by an SME/Start-up** with an interest in the results as a single partner or in a small collaboration. The goal is to mature both the technology and market readiness.
- A **‘Transition to Entrepreneurship’** - Many research projects produce “side results”, often with higher TRL levels, that could be relatively **quickly commercialized** with the right "seed financing".



Backing visionary entrepreneurs

The European Innovation Council
Work Programme 2022
NCP Workshop
9th February 2022

European
Innovation
Council





Draft Agenda

Introduction by APRE

Introduction by EISMEA on EIC WP2022

EIC Pathfinder calls (Open, Challenges) - Q&A

Coffee Break

EIC Transition calls (Open, Challenges) - Q&A

Business Acceleration Services - Q&A

Lunch break

EIC Accelerator (followed by Q&A after each sub-topic)

- **EIC Accelerator – Overview and novelties 2022 – Andreas Lymberis, EISMEA EIC Accelerator**
- **EIC Accelerator – Application and evaluation - Catherine Eginard/Jeremy Delattre, EISMEA Operational coordination support**
- **EIC Accelerator grant funding – Cristina Boto, EISMEA, EIC Accelerator**
- **EIC Accelerator equity funding – Stéphane Ouaki, Head of Department E, EIC**

Closure by APRE and EISMEA

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Backing visionary entrepreneurs

Introduction by APRE
Information on Access2EIC new HE Grant



Access2EIC
National Contact Points for Innovation





ACCESS2EIC

Access2EIC is a 7-year coordination and support action which builds upon the foundations laid by previous EIC support networks and in line with the new Horizon Europe Framework Programme. It aims to:

- **Improve professionalisation and skills of NCPs across Europe which in turn will help to simplify access to Horizon Europe calls, lowering the entry barriers for newcomers, and raise the average quality of proposals submitted particularly for women entrepreneurs and in widening countries.**
- **Identify and share good practices, promote trans-national cooperation and raise the general standard of support to programme applicants, taking into consideration the novelties under Horizon Europe, the third pillar “Innovative Europe” and the various stakeholders within the EIC-EIE.**



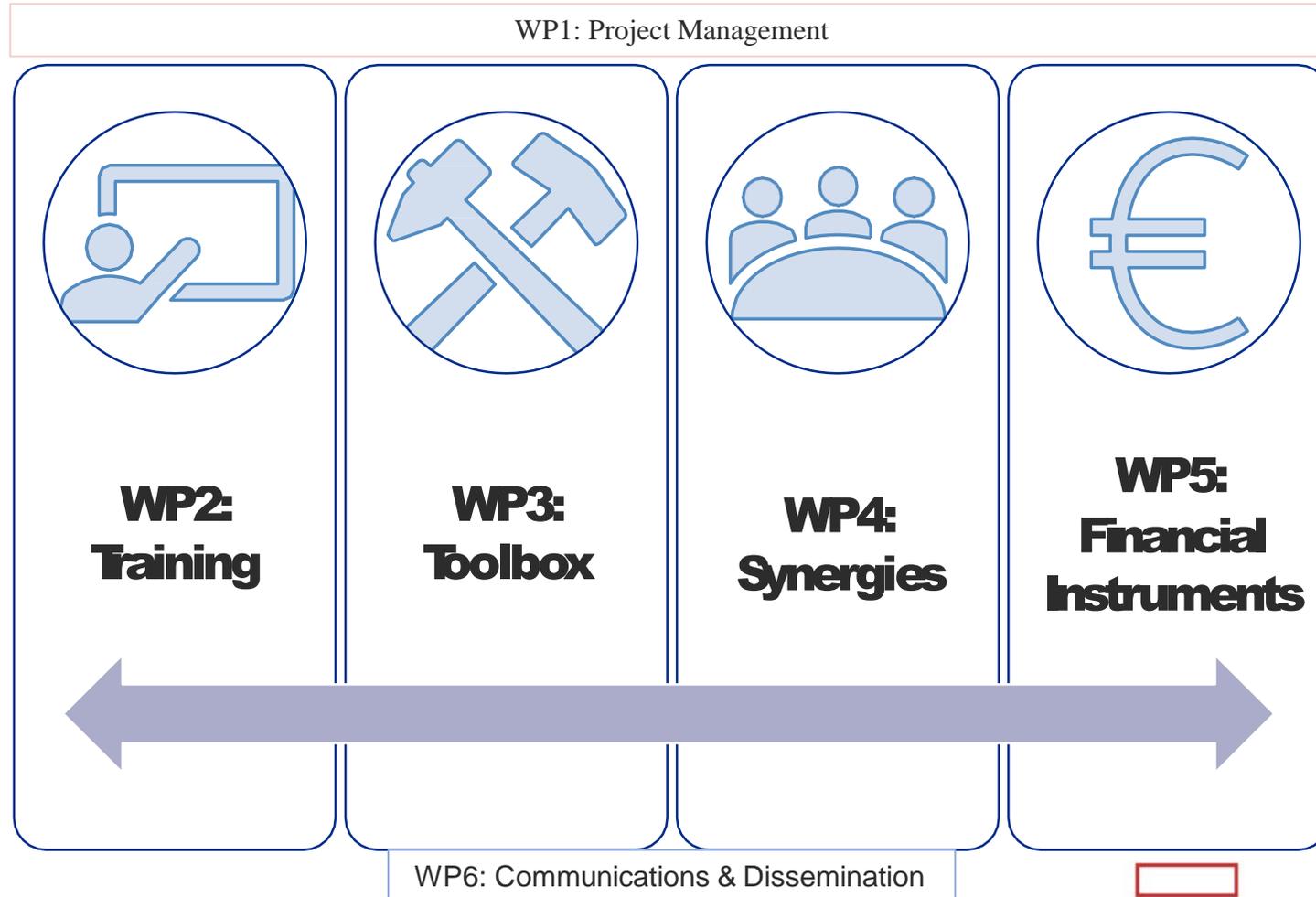


Objective

- **S**improve **NCP capacities** to gather and provide systemic knowledge (NCP Curriculum) to clients across different EIC-EIE calls.
- **Identify and share good practices, key success factors for EIC Pathfinder, Transition and Accelerator** proposal preparation based on the experiences of previously funded projects
- **Identify synergies between the EIC & complementary instruments, networks and knowledge communities** and to establish coordination mechanisms and develop case studies in order to enhance the competences of NCPs to **connect to various stakeholders within the European Innovation Ecosystem**
- **Identify most relevant novelties in the new generation of financial instruments (EIC Fund, InvestEU)** and communicate about them; **foster the use of financial instruments** to complete the EU funding continuum for high potential businesses actors participating or emerging from EIC calls, and to **develop a better understanding of VC co-investments with the EIC-Fund.**
- **Enhancing the outreach of this Network** through strategic information, communication and dissemination activities; to **provide support in establishing complementarities and capacity building between the EIC Network and stakeholders in the EIE**



Structure





Activitie

S

WP2

Capacity building

Event design &
organisation

Curriculum design

FFG, CDTI, APRE

“An improved, professionalised EIC NCP service across Europe”

- **Trainings/Workshops/Webinars for increasing the competencies of EIC NCPs**
- **E-learning platform within the HEU NCP Portal – EIC dedicated courses**





Activitie

WP3

Research results
exploitation

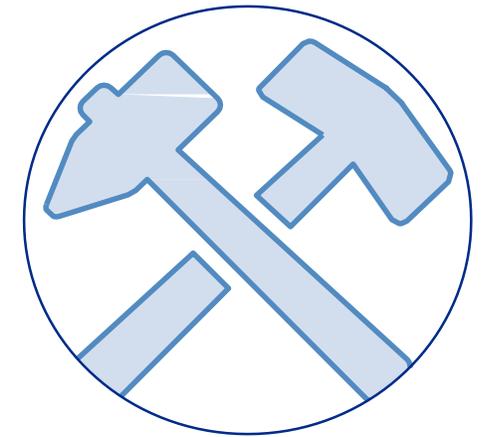
Training

Start-up support

DLR, APRE, IIA

“Identify and share good practices, key success factors for EIC Pathfinder, Transition and Accelerator ”

- **Success factors, best practices and support measures in Pathfinder projects**
- **Successfactors, best practices and support measures in Transition projects**
- **Success factors, best practices and support measures in Accelerator projects**





Activities



“Identify synergies between the EIC & complementary instruments, networks and knowledge communities”

- **Synergies between EIC & direct complementary instruments: SoE, EIC Plug-in, Fast Track**
- **Understanding & fostering synergies between EIC and EIT**
- **Understanding & fostering synergies between EIC and EIE**
- **Understanding & fostering synergies between EIC and EEN**





Activitie

“Foster the use of financial instruments”

WP5

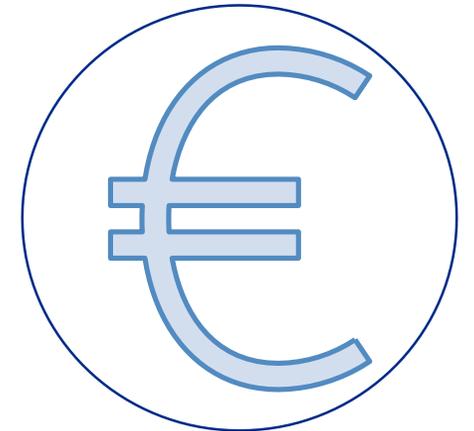
Business financing & investment

Raising Awareness

Research & Studies

BPI, EI, APRE

- Investigating the VC co-investments made by entities benefiting from a public support
- Promotional Guide and Webinars to raise awareness about EU financial instruments
- On-site mentoring for a more systematic use of financial instruments to complete the EU funding
- Matchmaking opportunities between EIC former or future participants and potential investors





Activitie

“Enhancing the outreach of this Network”

WP6

Event organisation

Brokerage and
matchmaking

Dissemination &
Communication

FORTH, BPI, APRE

- **Activities towards specific target groups: Women entrepreneurs, EU-13 participants (widening), Seal of Excellence holders**
- **Activities towards support structures: EIT, NCP Networks and EEN.**
- **Signposting with relevant information sources/ platforms. Awareness raising of applicants**
- **NCPs involvement in occasion of EC-organized events**



Join the network

- Register on our mailing list:



access2eic@apre.it

- Join our Slack Channel:



eicncps-access2eic.slack.com

- Follow our LinkedIn Page:



linkedin.com/company/access4smes/

- Follow us on Twitter:



[@access2eic](https://twitter.com/access2eic)



Access2EIC

National Contact Points for Innovation

European
Innovation
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Contact Us



www.access2eic.eu

- Steven Frigerio

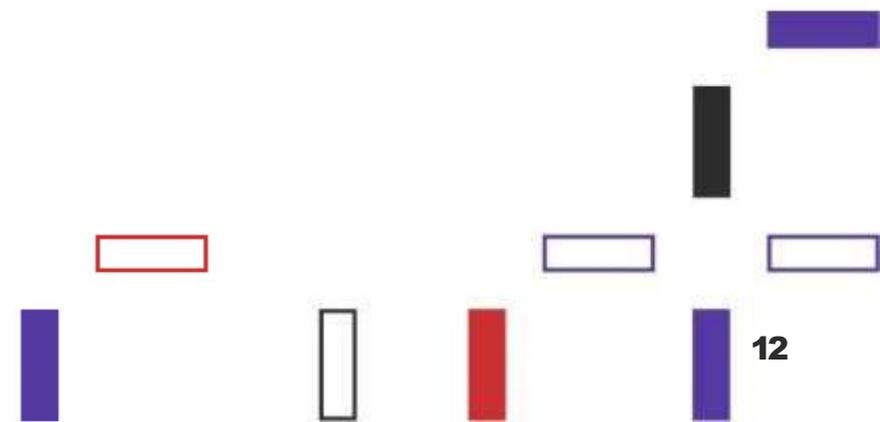


frigerio@apre.it

- Marta Calderaro

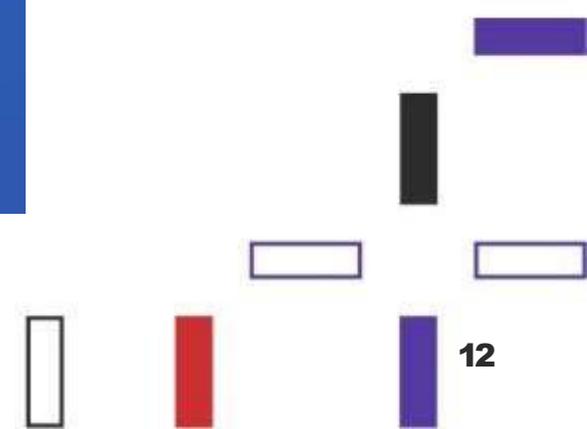


calderaro@apre.it



Q&A

Join at
slido.com
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Backing visionary entrepreneurs

Introduction by EISMEA on EIC WP2022
Main novelties of the EICWP 2022

Stéphane Ouaki, Head of Department E, EIC





Establishment of EIC

- Launch event 18 March 2021
 - **First work Programme adopted, €1.5billion**
 - **Launch of calls: Accelerator (continuously open, two stage); Pathfinder; Transition**
- Establishment of EIC & SME Executive Agency, 1 April 2021
 - **Delegated responsibility for implementing the EIC**
 - **Also related programmes: European Innovation Ecosystems, parts of Single Market Programme (SMEs, Standards, Consumers), part of Structural Funds (Interregional Innovation Investments)**



- **Appointed on 18 November 2021 for 2 year mandate**

- **Role to advise:**

- **EIC strategy,**
- **EIC work programme & implementation**
- **Broader innovation policy**

- **Diverse expertise:**

- **Entrepreneurs, investors, researchers, innovation ecosystem**
- **Gender balance (parity), Geographic balance (20 nationalities)**

- **First meeting on 26 November**





EIC main instruments and characteristics

Pathfinder

- **Early stage research** on breakthrough technologies
- Grants up to €3/4 million
- Successor of FET (Open & Proactive)

Transition

- **Technology maturation** from proof of concept to validation
- **Business & market readiness**
- Grants up to €2.5 million

Accelerator

- **Development & scale up** of deep-tech/ disruptive innovations by startups/ SMEs
- Blended finance (grants up to €2.5 million; equity investment up to €15 million)
- Successor of SME instrument

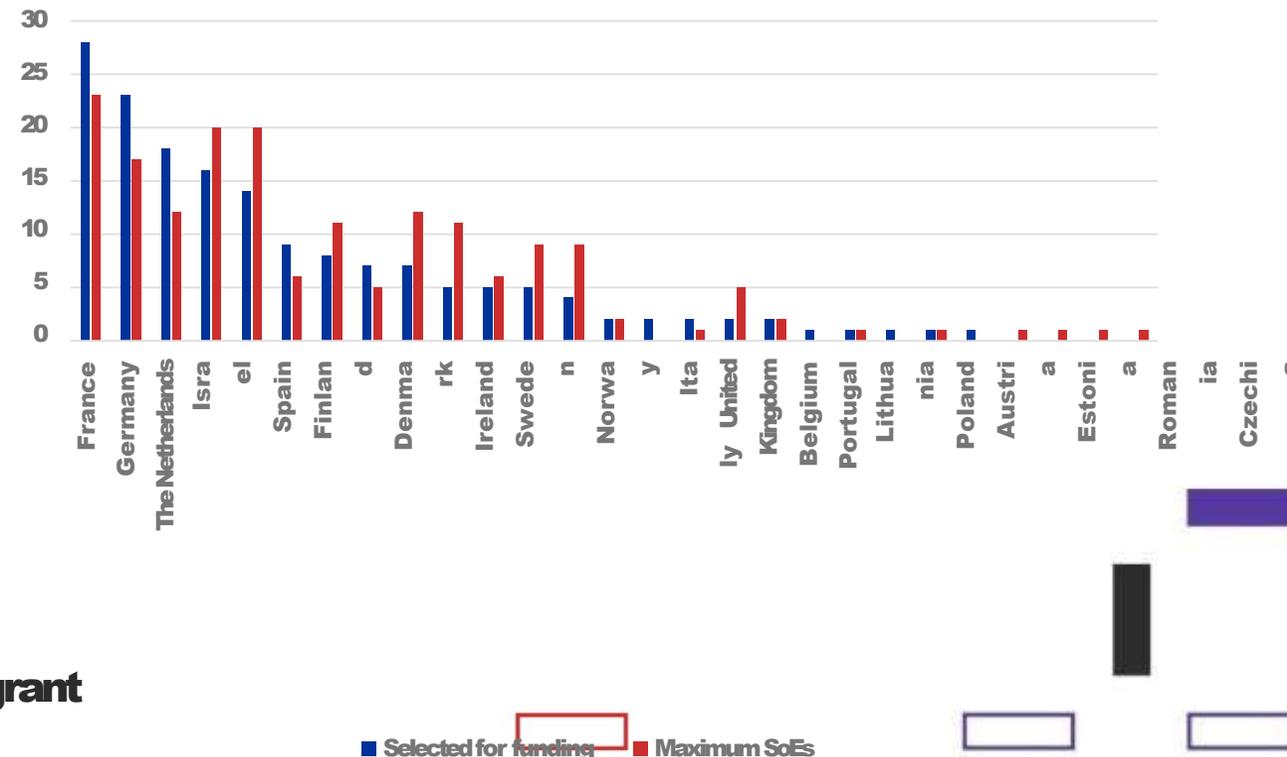
- Mission to **identify, develop and deploy high risk innovations** of all kinds
- Focus on **breakthrough, market-creating, deep-tech**
- Steered by **EIC Board** of leading innovators (entrepreneurs, investors, researchers, ecosystem)
- **Business Acceleration Services** (coaches/ mentors, corporates, investors, ecosystem)
- **Pro-active management** (roadmaps, reviews, re-orientations, etc) with EIC Programme Managers
- **Follow up funding for results from Horizon** (ERC, EIT, collaborative) & national programmes



Accelerator - Open	Short applications - Apply any time Over 5000 in 2021 ~ 500-700 per month Cutoffs for full applications: 16 June ~ 800 applications, 135 interviews, <u>65 selected</u> 6 October ~ 1000 applications, ~200 interviews, <u>99 selected</u>	~€593m (~grant/equity)
Accelerator – Challenges • Green Deal innovations • Strategic technologies: digital & health		~€495m (~grant/equity)
Pathfinder - Open	Deadline 25 May 868 proposals submitted <u>56 selected</u>	~€168m
Pathfinder - Challenges • Awareness inside • Measure & stimulate brain • Cell & gene therapies • Green Hydrogen • Engineered Living Materials	Deadline 27 October 433 proposals submitted <i>Evaluations ongoing</i>	~€132m
Transition – Open	22 September 292 proposals submitted, 87 interviewed <u>45 selected</u>	~€60m
Transition – Challenges • Medtech & devices • Energy harvesting & storage		~€40m

- >5000 short applications **submitted (April – December)**
- **Average time to inform for short applications of 22 calendar days (3 weeks)**
- ~1800 full applications **evaluated (June, October cut-offs)**
- ~330 companies invited to jury **interviews (September, November)**
- **164 companies selected for funding**
 - 96 blended finance
 - 34 grant first; 9 grant only
 - 5 equity only

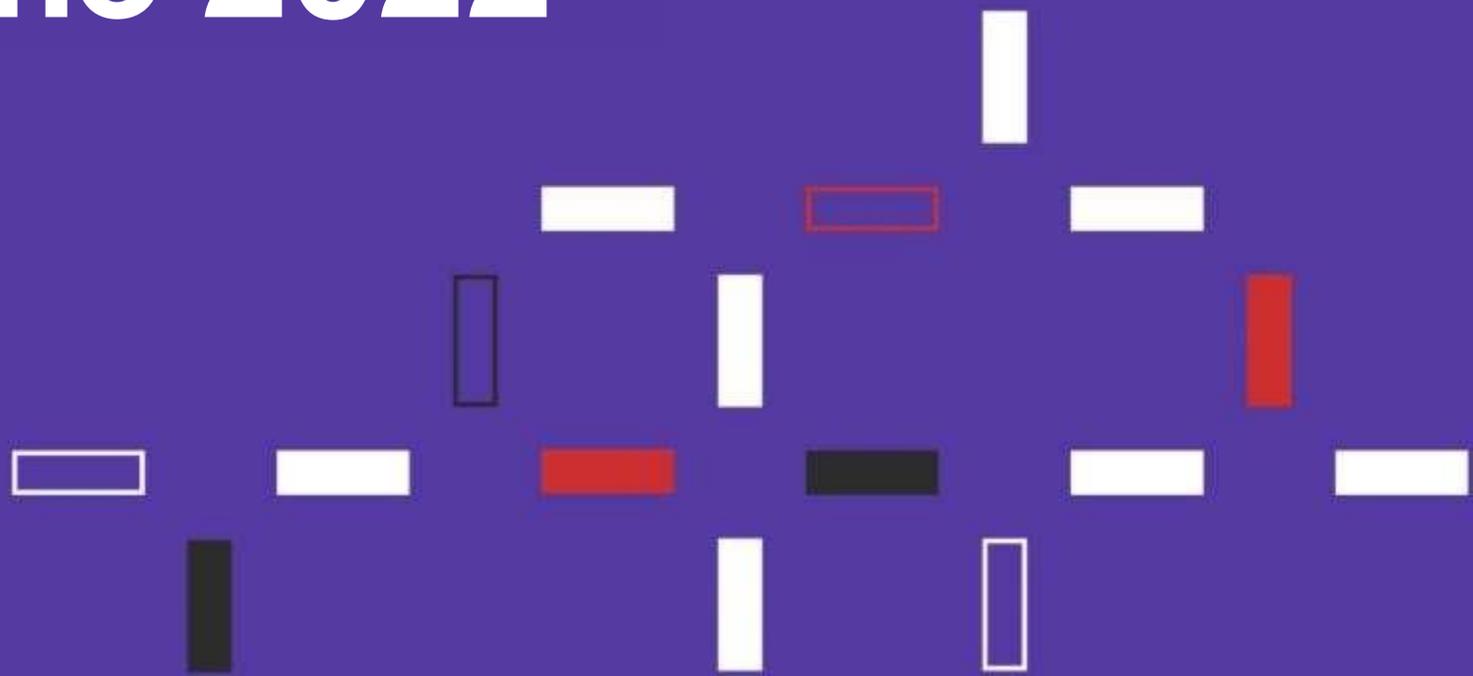
EIC Accelerator: companies selected 2021



Total funding up to €991m: €641m investments; €350m grant
Approx. 144 Seals of Excellence



EIC Work Programme 2022





EIC Work Programme 2022 - overview

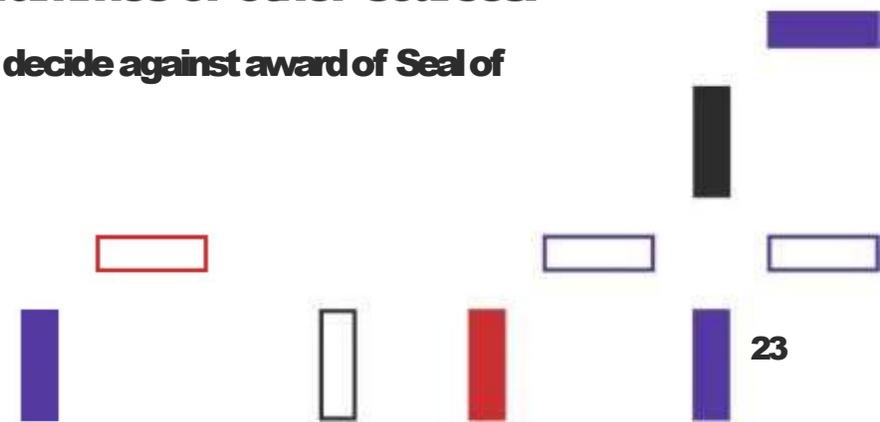
- **Budget: €1.67 billion**
 - **EC Pathfinder: €350 million**
 - **EC Transition: €131 million**
 - **EC Accelerator: €1.16 billion**
- **Strong continuity for main calls**
 - **More frequent cutoffs for Accelerator (23 March, 15 June, 5 October)**
 - **Multiple cutoffs for Transition (4 May, 28 September)**
 - **Pathfinder deadlines: 4 May (Open); 19 October (Challenges)**
- **Some simplifications and improvements in application process**
- **Evolution of EIC challenges**
- **Additional support for scaleup companies and women innovators**
- **Enhanced Business Acceleration Services and support actions**
- **Continuity with EIC Prizes**



Simplifications and improvements in main calls

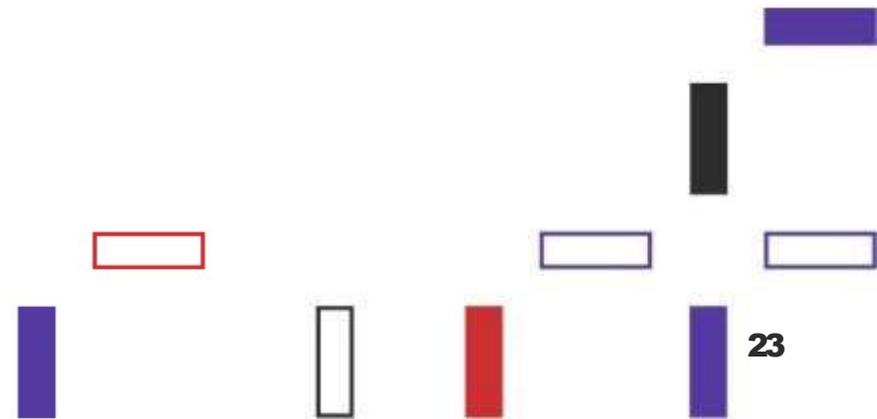
- **EIC Pathfinder**
 - **Improved** rebuttal procedure (**clearer timelines**)
- **EIC Transition**
 - **Clarifications** on eligibility of consortia
- **EIC Accelerator**
 - Improved resubmissions (**evaluators to take account of improvements and rebuttals following first evaluation**)
 - Simplified Seal of Excellence (**awarded to all companies attending jury interview***) to help obtain **funding from Structural Funds, Recovery Funds, national/regional programmes or other sources.**

* Applicants must give consent to share data with other funders; in exceptional cases juries can decide against award of Seal of Excellence





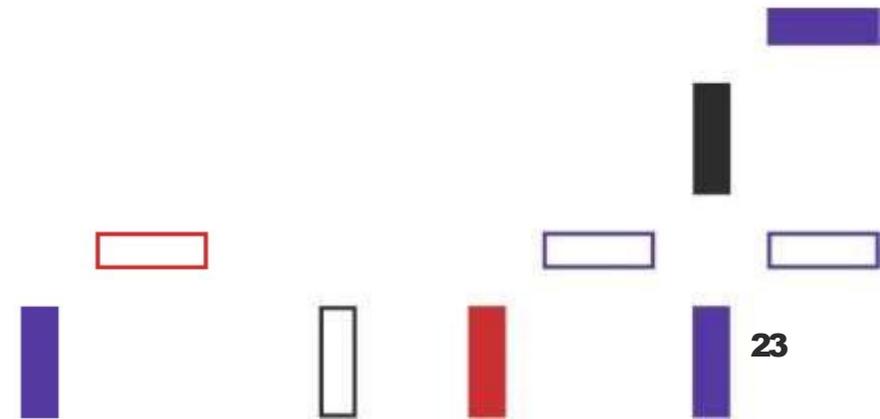
- **€167 million for 6 Pathfinder Challenges:**
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 - **Cardiogenomics;**
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- **€60.5 million for 3 Transition Challenges:**
 - **Green digital devices for the future;**
 - **Process and system integration of clean energy technologies;**
 - **RNA-based therapies and diagnostics for complex or rare genetic diseases**
- **€537 million for two major Accelerator Challenges:**
 - **Technologies for Open Strategic Autonomy**
 - **Technologies to address climate change ('Fit for 55')**





Additional support for scaling up companies

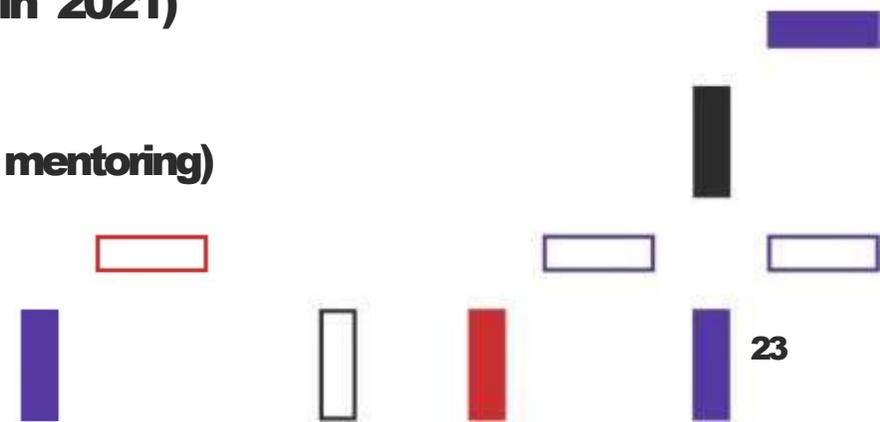
- **EIC Accelerator call:**
 - **Applicants can apply for investments above €15 million if in strategic area, and other sources of funding not available in Europe** (Pilot in 2022)
- **EIC Scaleup 100 initiative:**
 - **To identify 100 potential unicorns from EIC portfolio and national schemes**
 - **To support with bespoke mentoring, matchmaking, marketing, etc**
(Follow up to EIC scalator pilot)
- **High level expert group on late-stage scaleup financing:**
 - **To assess the case for further actions**





Additional support for women innovators

- **Transition call**
 - **Priority for interview phase for women-led projects (women-led companies or 50% of work package leaders)**
- **Accelerator call**
 - **Broader definition of women-led company (Chief Technology Officer, Chief Scientific Officer as well as CEO)**
- **Pilot European gender and diversity index**
 - **To define and collect comparable data on gender across innovation ecosystem (founders, VCs, investors, etc) and all EU countries**
 - **To publish a pilot gender innovation and diversity index to track progress**
- **€10 million budget for WomenTech.EU (increased from €4 million in 2021)**
 - **To support approx. 130 female deeptech founders (€75000 grants)**
 - **Accompanied by Women Leadership Programme (also to be extended to EIT for mentoring)**



Enhanced Business Acceleration Services 2022



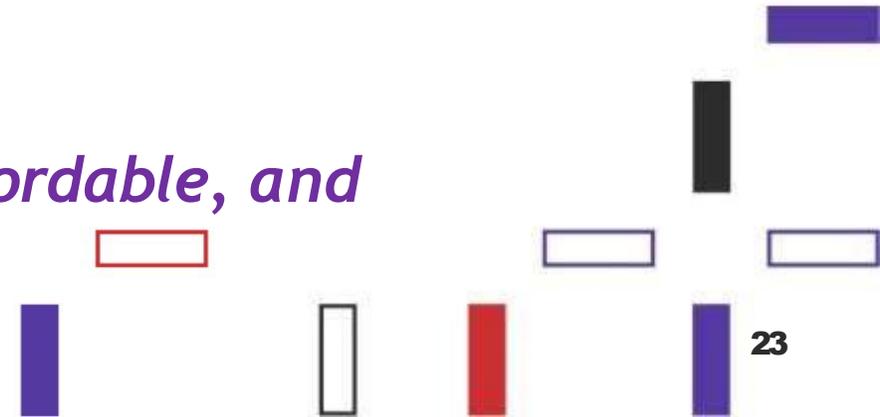
- **For all EIC awardees (Accelerator, Transition and Pathfinder)**
- **Access to** coaching, mentors, expertise and training
- **Access to** global partners
- **Access to** innovation eco-systems and peers
- **EIC Community platform, as virtual meeting place**
- **NEW!** Additional support to **'animate' EIC Marketplace online platform**
- **NEW!** Support for **EIC companies to access procurement contracts**



EIC Prizes: strong continuity



- **EU Prize for Women Innovators**
 - **NEW!** Increase in number of prizes awarded (3 from 1) under the ‘Rising Innovators’ category
- **The European Capital of Innovation Awards (iCapital)**
- **The European Innovation Procurement Awards;**
- **The European Social Innovation Competition**
 - Focus on *‘the future of living, innovation for affordable, and sustainable housing districts’*



EIC 2022 Other Actions



Coordination and support actions

- **Creating communities, stakeholder engagement and impact from EIC portfolios**
- **Enhancing synergies between the EIC and Startup Europe**
- **AI-based technology rating tool for applications to the EIC***
- **Training & onboarding on the EIC AI-based Platform for stakeholders***

* Named beneficiary actions

Procurements

- **Communication, outreach, events**
- **EIC Data and IT systems integration**
- **Upskilling for outreach and EIC proactive management**

Expert Contracts

- **External expertise for monitoring, ethics and policy advice**
- **Expert group on the design of the EIC Marketplace and Techto Market activities**
- **Honoraria and expenses of the EIC Board**

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Backing visionary entrepreneurs

**EIC Pathfinder calls (Open, Challenges)
Overview and novelties 2022**

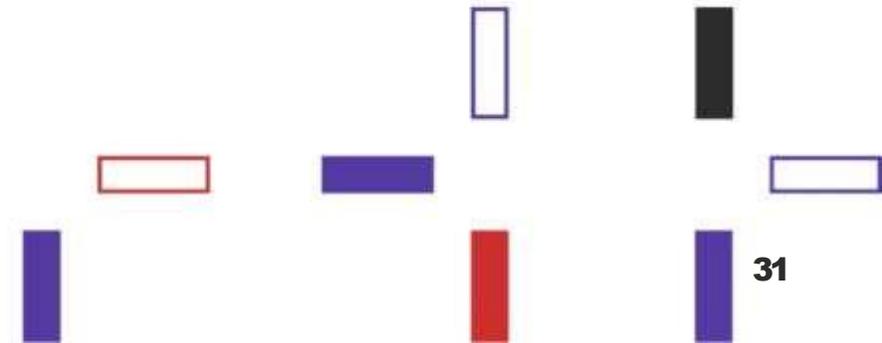
Timo Hallantie, Head of Unit, EIC Pathfinder





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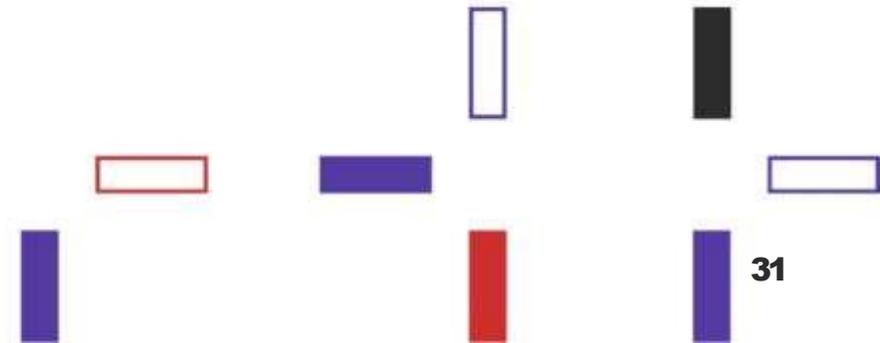
- **What is the EIC Pathfinder?**
- **EIC Pathfinder Open**
- **EIC Pathfinder Open > Evaluation procedure**
- **Main novelties in process and call in 2022**
- **Call 2022 - Summary table Pathfinder Open**
- **EIC Pathfinder Challenges**
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- **Calls 2022 - Summary table Pathfinder Challenges**





What is the EIC Pathfinder?

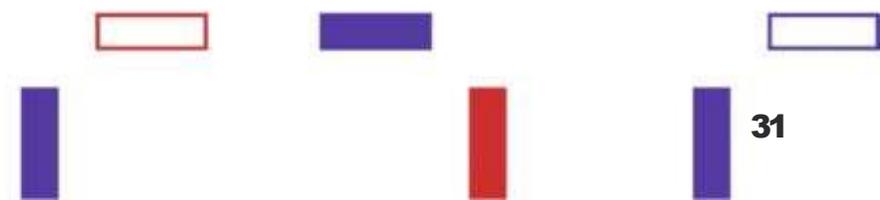
The EIC Pathfinder programme funds research to develop the scientific basis to underpin breakthrough technologies.



Funding schemes

- EIC Pathfinder **Open**  bottom-up approach. **Any field of science, technology or application without predefined thematic priorities**

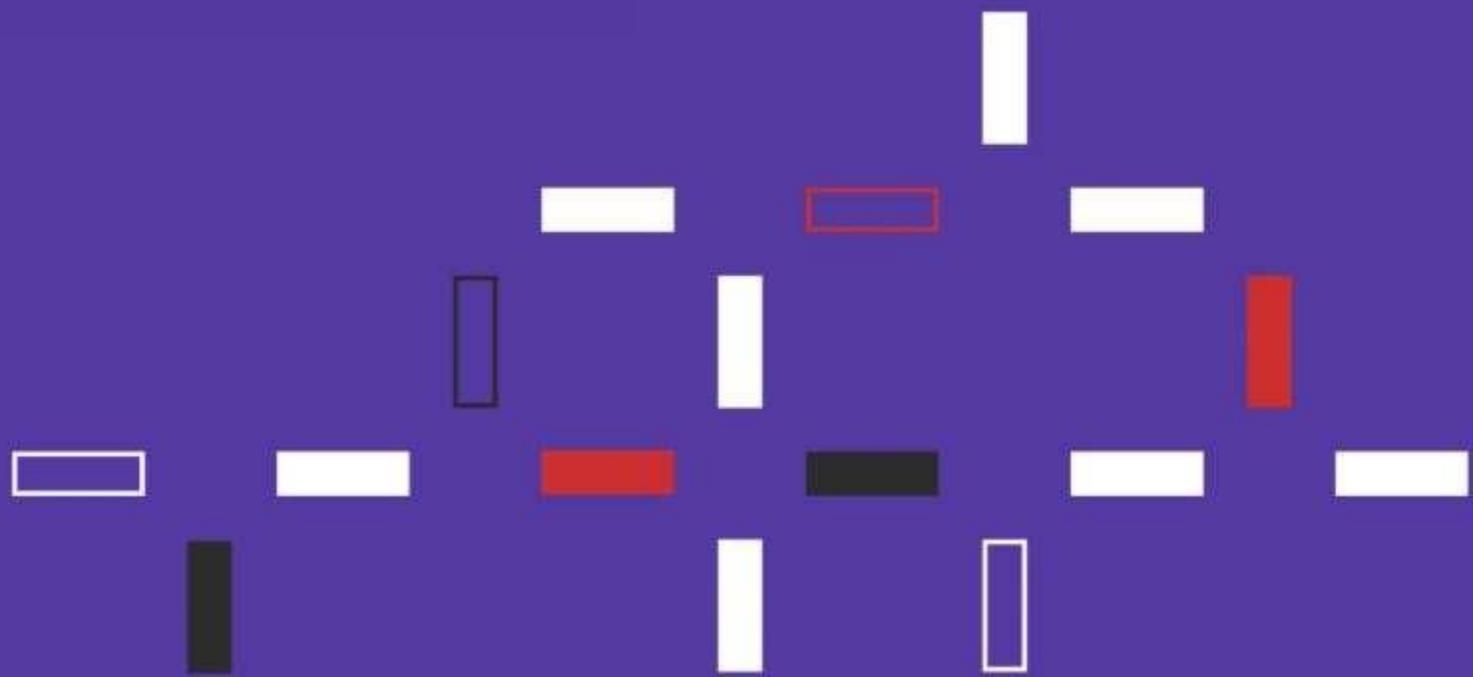
- EIC Pathfinder **Challenges**  top-down, challenge-driven, portfolios of projects approach. **To support proposals within a predefined thematic area and addressing specific objectives.**





EIC Pathfinder Open

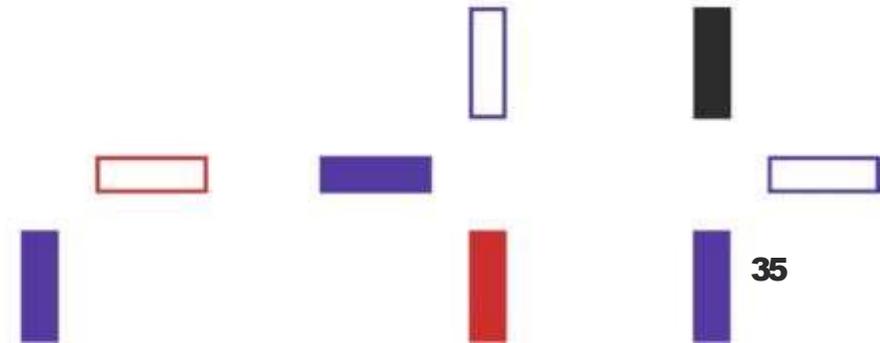
Emanuela Galeazzi





EIC Pathfinder Open

- **Do you have a vision for a 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?**





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.**

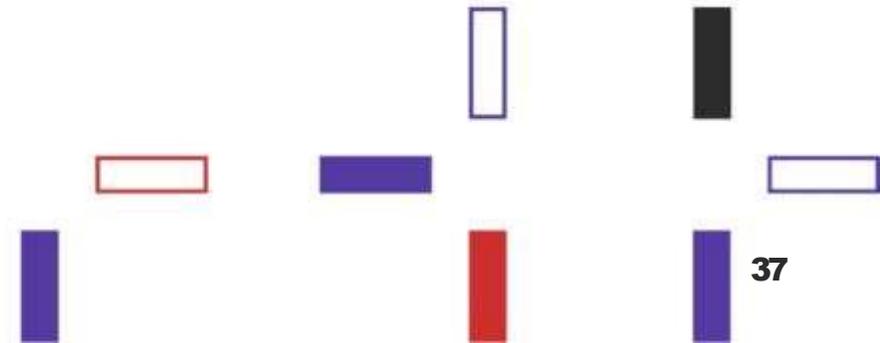
* *Deep-tech is technology that that is based on cutting edge scientific advances and discoveries and is characterised by the need to stay at the technological forefront by constant interaction with new ideas and results from the lab.*



EIC Pathfinder Open: Gatekeepers

Collaborative, interdisciplinary research, meeting the following 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 & methodology, with concrete and plausible objectives.**





Expected outcomes of EIC Pathfinder Open projects

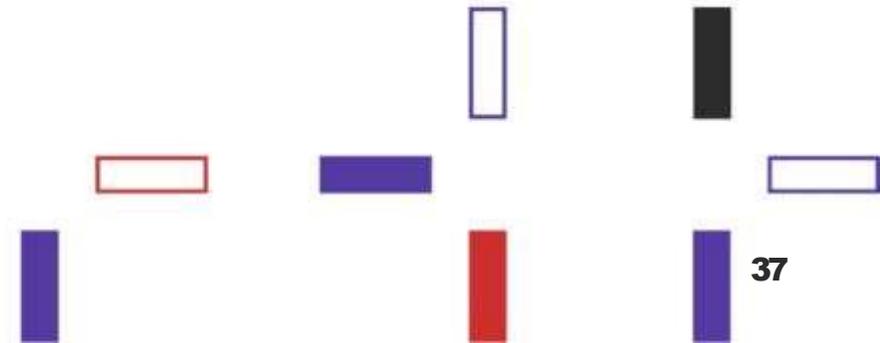
- **the expected outcome of a EIC Pathfinder project is the proof of principle that the main ideas of the envisioned future technology are feasible, thus validating its scientific and technological basis;**
- **projects are expected to take the necessary measures to allow future uptake to take place, for instance through an adequate formal protection of the generated Intellectual Property (IP);**
- **projects are encouraged to involve and empower in their teams 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;**
- **project are also encouraged to empower female researchers and to achieve gender balance among the work package leaders.**

All the above will strengthen Europe's capacity for exploiting the scientific discoveries made in Europe throughout the steps to market success or for solving global challenges.



EIC Pathfinder Open: Can you apply? Consortium composition

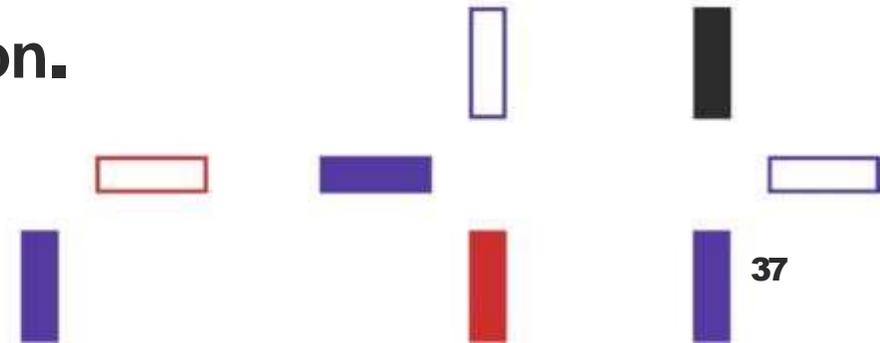
- **A consortium has to include at least three independent legal entities, each one established in a different Member State or Associated Country and with at least one of them established in a Member State.**
- **Legal entities: all types are eligible.**





What support will you receive if your proposal is funded?

- **You will receive a grant for a Research and Innovation Action (RIA) 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 properly justified.**
- **The funding rate of this grant will be 100% of the eligible costs.**
- **The total indicative budget for this call is EUR 183 million.**





Additional opportunities for Pathfinder selected

projects or their beneficiaries **funded through EIC Pathfinder are eligible:**

- **to receive additional EIC Booster grants (up to 3 per project or more if duly justified) with fixed amounts of up to €50,000 to undertake complementary activities:**
 - **to explore potential pathways to commercialization**
 - **for portfolio activities.**
- **to submit a proposal to the EIC Transition for transforming their research results into innovation opportunities;**
- **to submit an EIC Accelerator proposal via the Fast Track scheme;**
- **to receive free access to a wide range of Business Acceleration Services.**

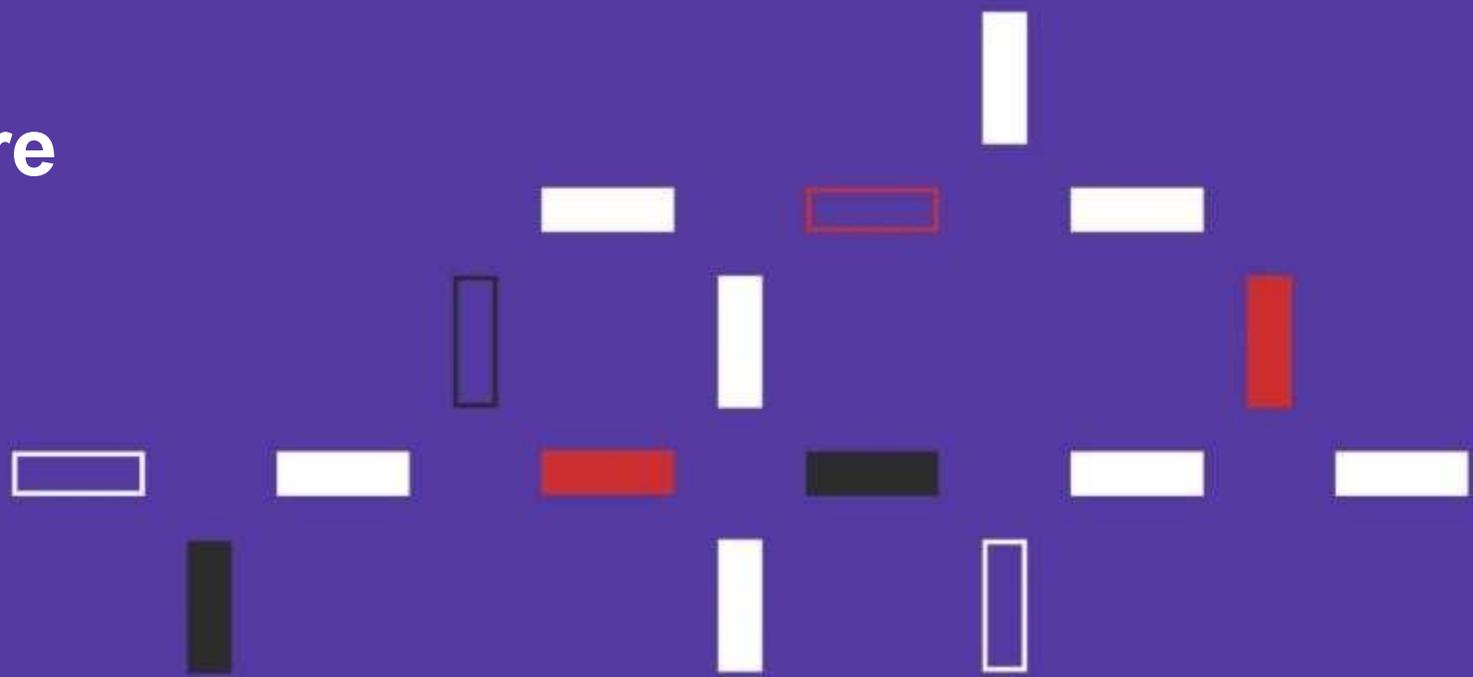


EIC

Pathfinder

Open

Evaluation Procedure





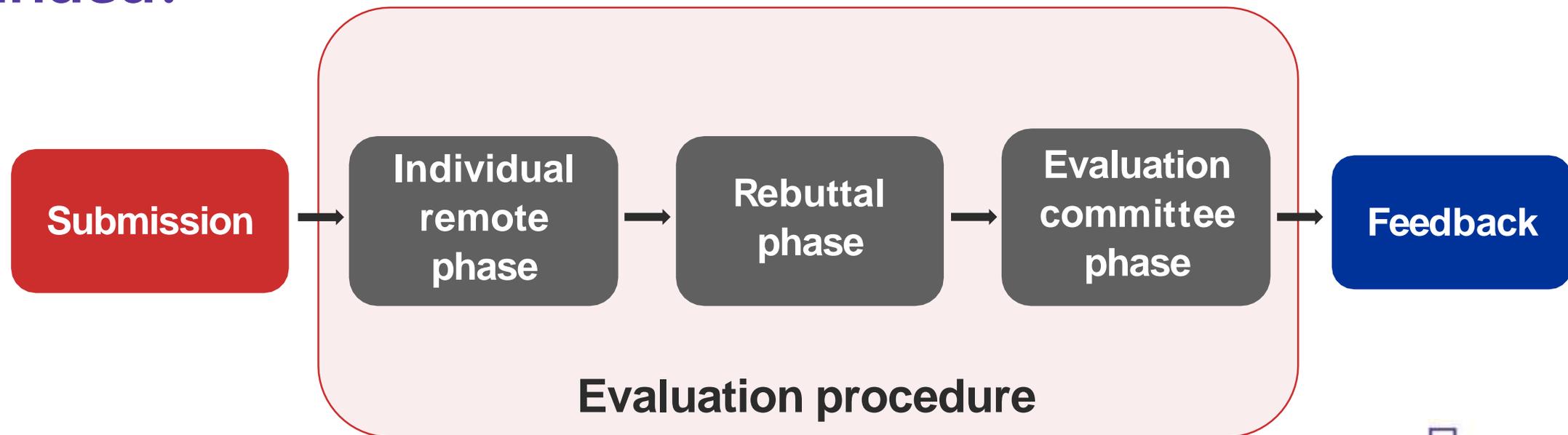
How do you apply; how long does it take?

- **You must submit your application via the EU Funding & Tender Opportunities Portal before the given deadline.**
- **You will be informed about the outcome of the evaluation within 5 months from the call deadline (indicative).**
- **If your proposal is accepted for funding, your grant agreement will be signed by 8 months after the call deadline (indicative).**
- **The deadline to submit the proposal is 3 May, 2022 at 17h00 CET**





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





Proposal Submission

The Proposal Application Form is composed of two parts:

- **Part A: to be filled online (no page limit). It contains administrative details, the summarised budget and call specific questions.**
- **Part B: to be uploaded as a single document (page limit: maximum of 17 A4 pages – Section 1 to 3). It contains the technical description of the project.**

Modified to reflect the evaluation criteria as indicated in the Work Programme 2022.

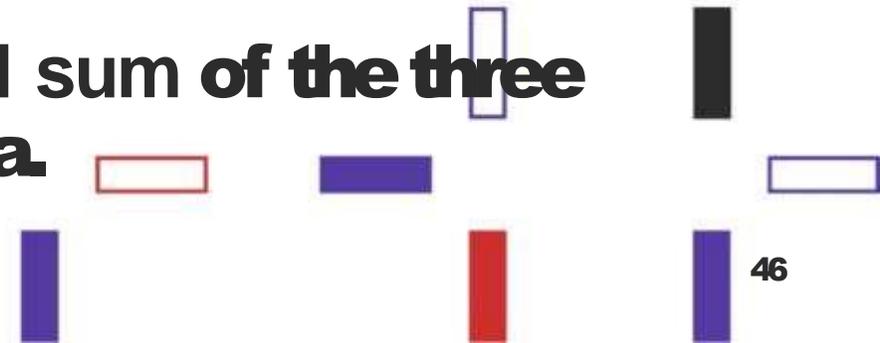
Template available on the EU Funding & Tender Opportunities Portal.





Individual Remote phase

- **Expert evaluators evaluate the proposals with respect to the evaluation criteria:**
 - **Excellence**
 - **Impact**
 - **Quality and efficiency of the implementation**
- **The remote score for each evaluation 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 evaluation criteria.**





Evaluation criterion “Excellence”

- 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, 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?**



Threshold
4/5

Weight
60%



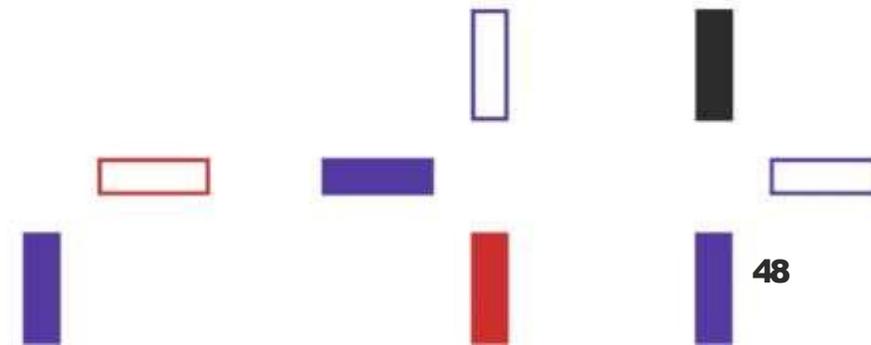
Evaluation criterion "Impact"

- 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?**



Threshold
3.5/5

Weight
20%



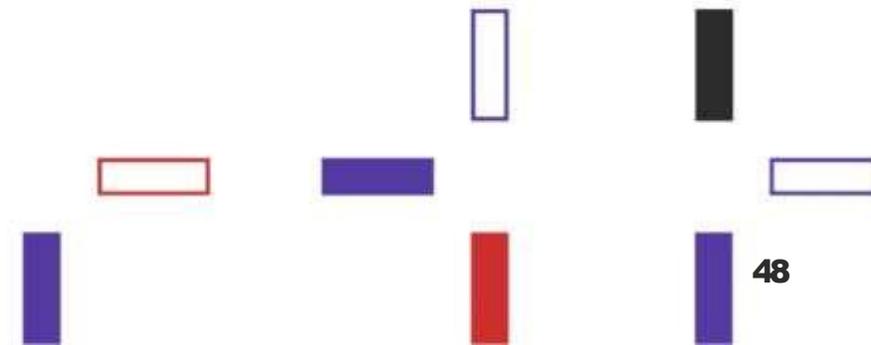


Evaluation criterion "Quality and efficiency of the implementation"

- **Quality of the consortium: To what extent do the consortium members have all the necessary high quality expertise for performing the project tasks?**
- **Work plan: How coherent and effective are the work plan (work packages, tasks, deliverables, milestones, time-line, etc.) and risk mitigation measures in order to achieve the project objectives?**
- **Allocation of resources: How appropriate and effective is the allocation of resources (person-months and equipment) to tasks and consortium members?**

Threshold
3/5

Weight
20%





Rebuttal phase - "Right-to-react"

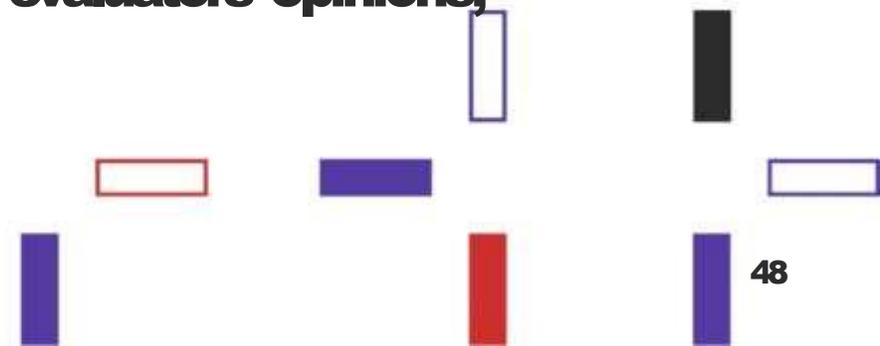


- **About 1.5-2.5 months after the call deadline, you will have the opportunity to reply within 8 calendar days (at 17h00 Brussels local time) with a strict page limit (maximum two A4 pages) to the evaluators' comments;**
- **your replies cannot be used to alter or add to the content of the proposals, but must strictly focus on responding to potential misunderstandings or errors by the evaluators;**
- **the replies will be made available to the evaluation committee;**
- **the evaluation committee will take into consideration the comments from the rebuttal procedure, if any, in order to arrive at their final scores for the proposals that underwent this procedure.**



Evaluation committee phase

- **the evaluation committee will be composed of external independent experts different than those who evaluated the proposals remotely;**
- **the final score will be decided based on the remote score and the outcome of the 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);**
- **expert evaluators who evaluated and scored the proposals remotely may be invited to the consensus discussions, in particular for proposals with diverging evaluators' opinions;**
- **the evaluation committee will confirm the ranking list.**

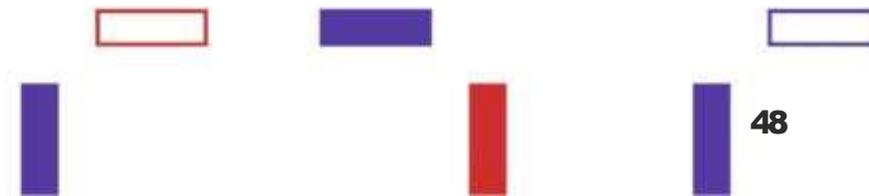




Ranking list – Equal score resolution

Proposals with the same scoring will be untied 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**
- **If needed, other factors determined by the evaluation committee**





Feedback to Applicants

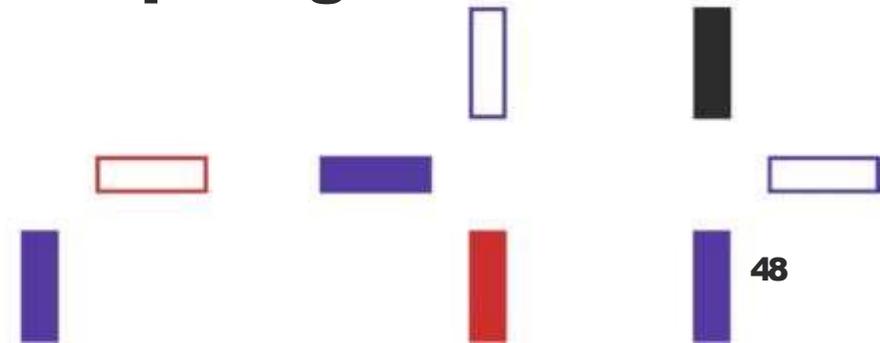
Applicants will receive an Evaluation Summary Report that will comprise of:

- **the final score;**
- **a collation of the comments from individual reports, or extracts from them;**
- **a comment that summarises the assessment by the evaluation committee (potentially taking into account the applicants' reply received via the rebuttal);**
- **additional comments, possibly including advice not to resubmit proposal.**



To resume...

- **Overall, the main provisions of the EIC Pathfinder Open call 2022 remained relatively stable compared to 2021, while incorporating necessary improvements.**
- **Main novelties:**
 - **Criterion 1 - Excellence: Open science practices moved from Impact to Excellence**
 - **Criterion 2 – Impact: sub-criterion « Long-term impact » added**
 - **Criterion 3 – Implementation: no changes**
 - **Equal score resolution: gender balance among the work package leaders used as third criterion to untie proposals**





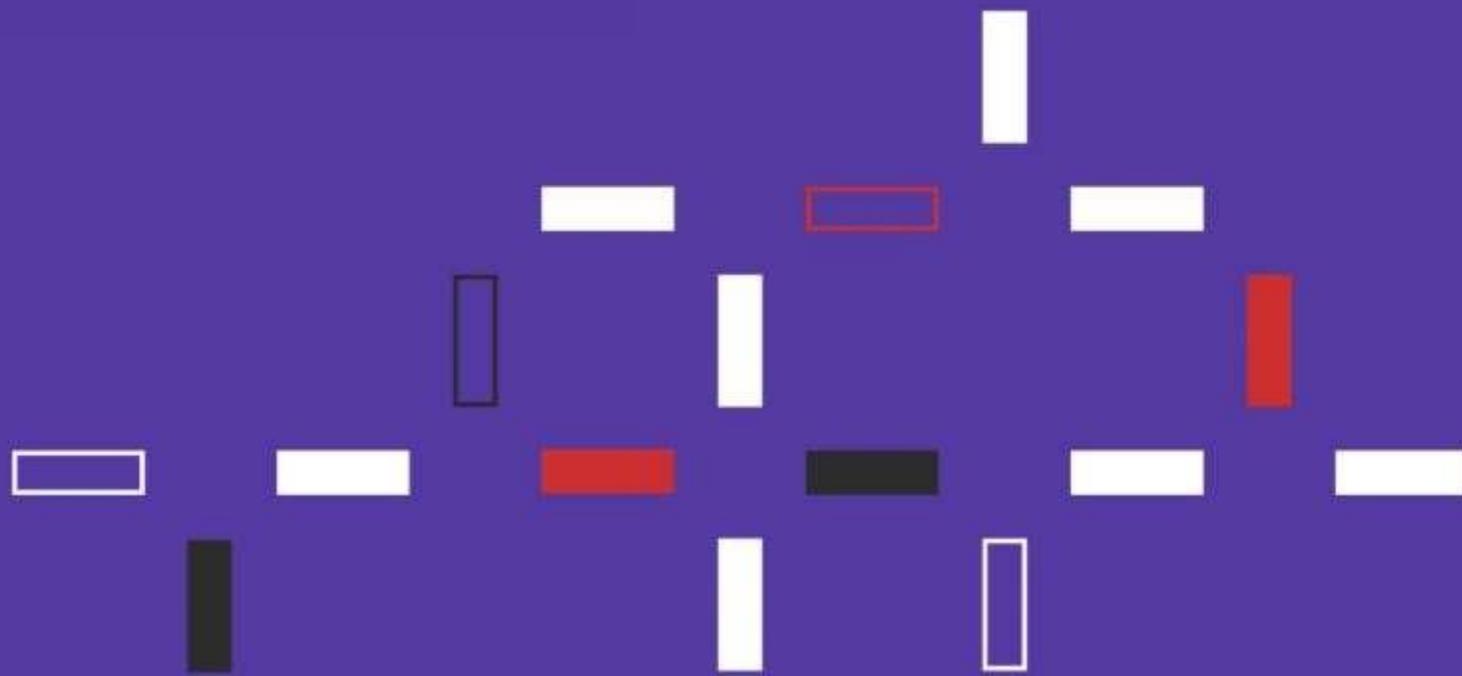
Call 2022 – Summary table

	Pathfinder Open
Total budget	€183 million
Proposals (indicative)	Up to €3 million
Funding rate	100% of eligible costs
Length of proposal – Part B	17-page proposal – Section 1 to 3
Opening	1 March 2022
Deadline	3 May 2022 at 17h00 Brussels local time
Applicants	Consortia: Min. 3 partners from 3 different MS/AC (of which at least 1 partner in a MS)



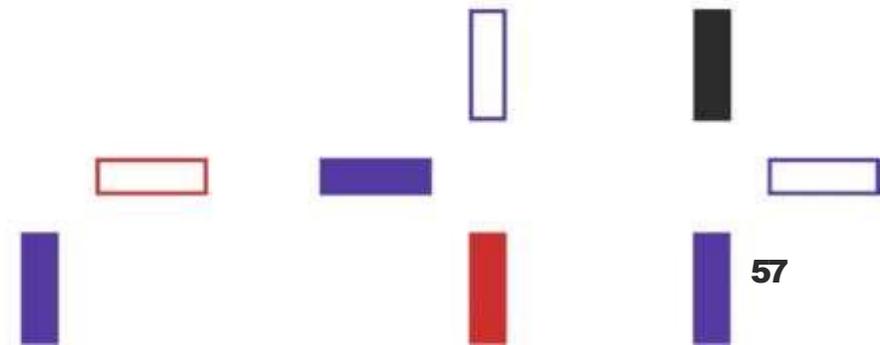
EIC Pathfinder Challenges

Walter Van de Velde
Training for National Contact Points
9 February 2022



What is it?

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



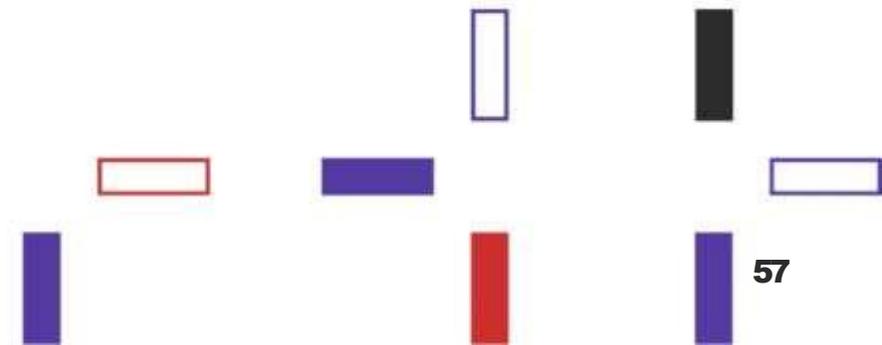


Portfolio approach

Challenge portfolio approach:

- **exploring different perspectives, competing approaches or complementary aspects of the Challenge;**
- **multidisciplinary interactions and exchanges for synergies and serendipity;**
- **contributing to an overarching medium to long-term business goal and technology-based strategic plan, under the supervision of an EIC Programme Manager.**

Projects will participate in relevant portfolio activities.





Why should you apply?

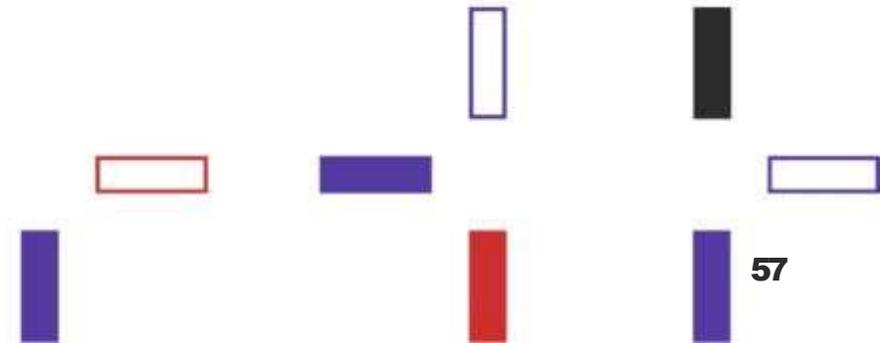
- **If you have an ambitious idea to realise the vision of a specific Pathfinder Challenge then this call may be for you. Your project should contribute to the specific objectives of the respective Challenge.**
- **EIC is particularly interested in your ideas for new deep-tech: technology that becomes possible thanks to cutting-edge science in an area of the specific challenge.**
- **We are seeking new technological solutions at early stage of development that are new and disrupt the standard practice up to this point.**



Expected outcome

- **your project must aim to deliver, by its end the specific outcomes defined in the respective challenge chapter;**
- **project outcomes must also include top-level scientific publications as well as an adequate formal protection of the generated intellectual property (IP);**

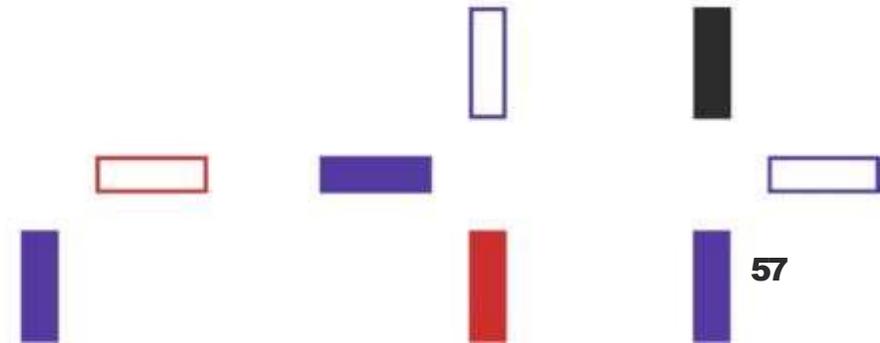
Before you apply you are strongly encouraged to read the respective Pathfinder Challenge Guides.





Pathfinder Challenge Guides

- **The Challenge Guide are documents that will provide more information about the specific objectives of the challenge, e.g.:**
 - a detailed assessment of the state of the art and related (existing) projects in the field
 - technical information to underpin the objectives
 - potential societal, economic, environmental impacts if the objectives are achieved
 - as well as relevant references.
- **The Challenge Guides will be published when the call opens (16 June 2022) on the EIC website and the EU Funding & Tender Opportunities Portal.**





Can you apply?

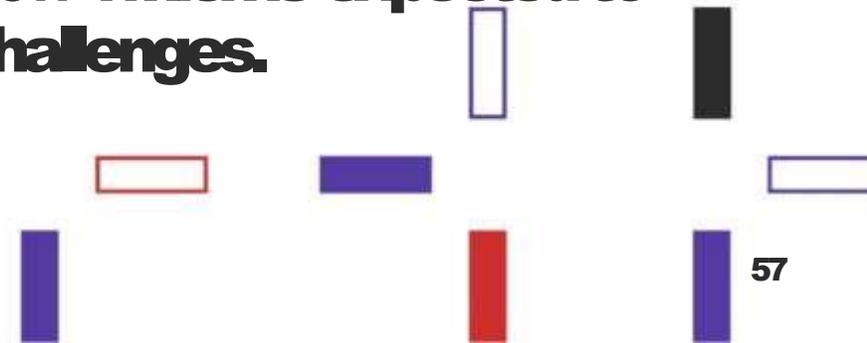
Consortia or single legal entities (unless stated otherwise for the specific challenge*):

- **In case of consortium, they have to include at least two independent legal entities:**
 - **consortia of two must have independent legal entities from two different Member States or Associated Countries;**
 - **consortia of three or above follow standard rules i.e., at least one legal entity must be from a Member State;**
 - **Legal entities: all types are eligible.**
- **In the case of single entity, mid-caps and larger companies will not be permitted.**



What support will you receive if your proposal is funded?

- **You will receive a grant for a Research and Innovation Action (RIA) 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 properly justified or stated otherwise in the specific Challenge. The funding rate of this grant will be 100% of the eligible costs.**
- **The total indicative budget for this call is EUR 167 million which is expected to be allocated in approximately equal shares across the challenges.**





Additional opportunities for selected

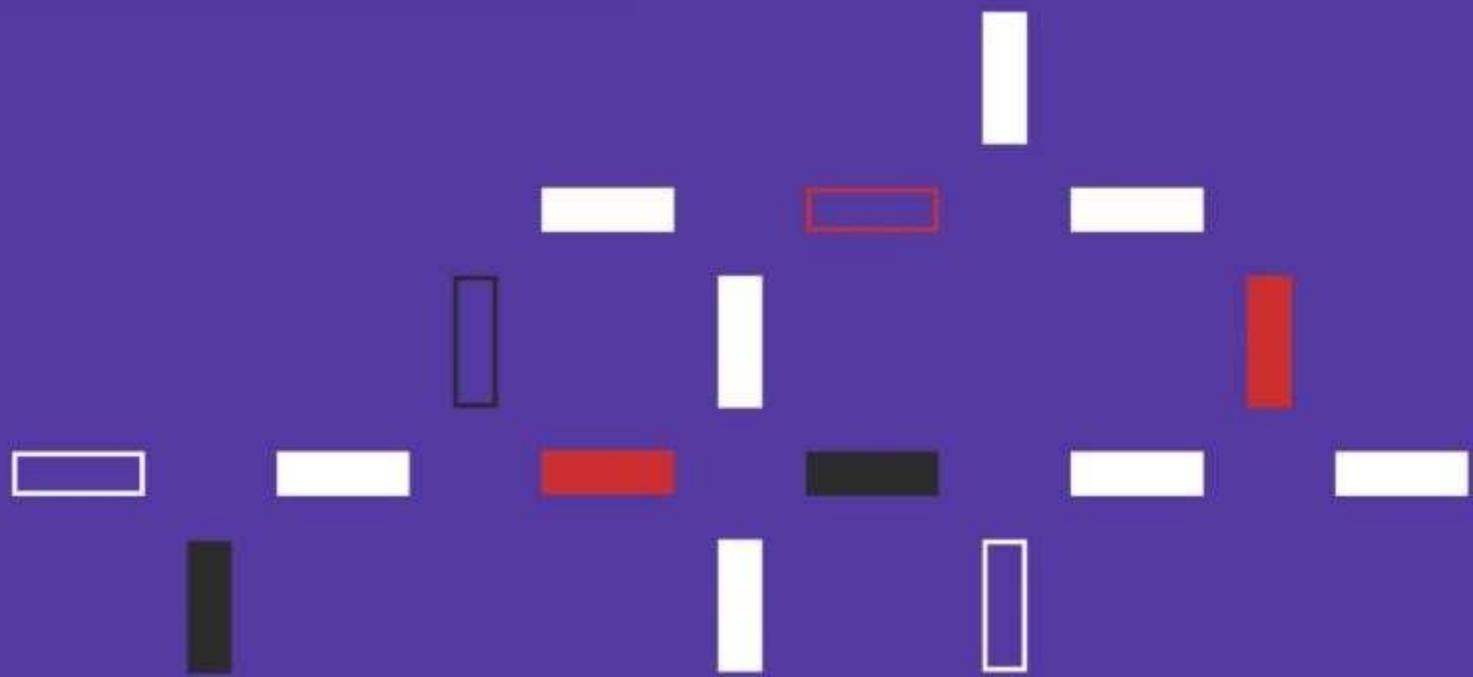
projects of their beneficiaries **funded through EIC Pathfinder are eligible:**

- **to receive additional Ad hoc grants (up to 3 per project or more if duly justified) with fixed amounts of up to €50000 to undertake complementary activities:**
 - **to explore potential pathways to commercialization**
 - **for portfolio activities.**
- **to submit a proposal to the EIC Transition for transforming their research results into innovation opportunities;**
- **to submit an EIC Accelerator proposal via the Fast Track scheme;**
- **to receive free access to a wide range of Business Acceleration Services.**



EIC Pathfinder Challenges

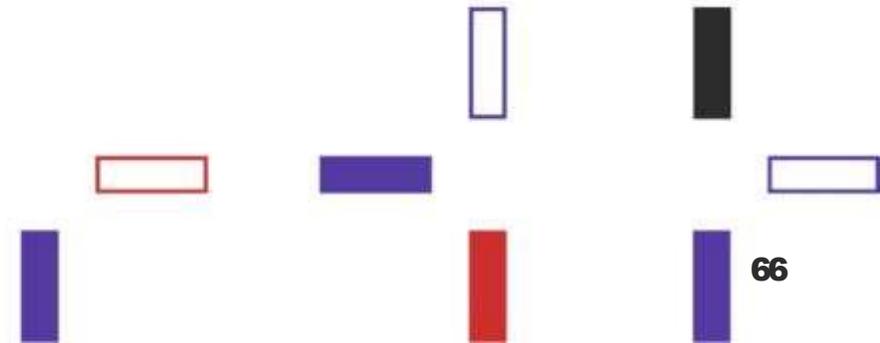
Evaluation procedure





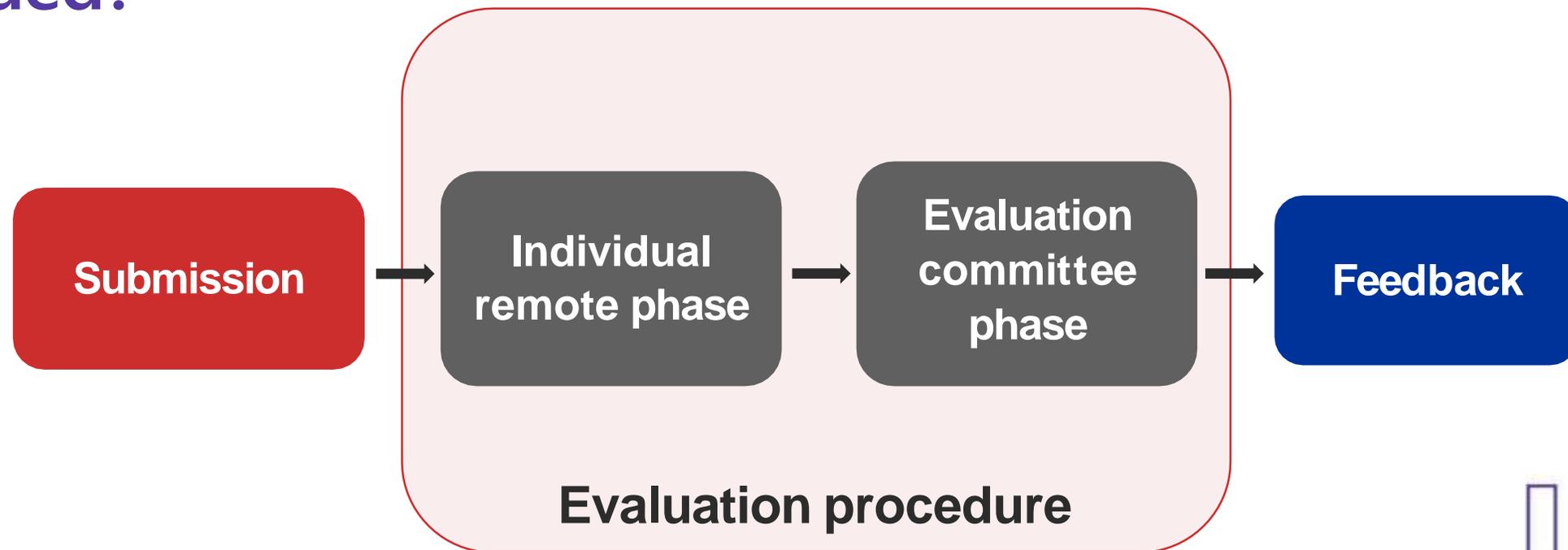
How do you apply; how long does it take?

- **You must submit your application via the EU Funding & Tender Opportunities Portal before the given deadline:**
 - **Call opening:** 16 June 2022
 - **Deadline:** 19 October 2022 at 17.00.00 CET.
- **You will be informed about the outcome of the evaluation within 5 months from the call deadline (indicative).**
- **If your proposal is accepted for funding, your grant agreement will be signed by 8 months after call deadline (indicative).**





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





Proposal Submission

- **The Proposal Application Form is composed of two parts:**
 - **Part A: to be filled online (no page limit). It contains administrative details, the summarised budget and call specific questions.**
 - **Part B: to be uploaded as a single document (page limit maximum of 25 A4 pages – Section 1 to 3). It contains the technical description of the project. Template available on the EU Funding & Tender Opportunities Portal.**



Step 1: Individual Remote phase

- **EIC expert evaluators will assess each application separately against the defined evaluation criteria:**
 - Excellence
 - Impact
 - Quality and efficiency of the implementation.
- **The score for each evaluation criterion will be the average of the individual evaluators' scores.**
- **The overall proposal score will be calculated as the weighted sum of the average scores from the evaluation criteria.**
- **All proposals that meet the thresholds defined in the evaluation criteria will be considered in the second step.**

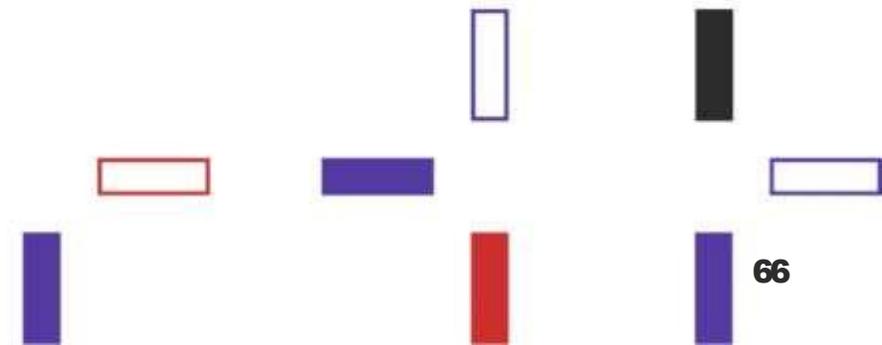


Evaluation criterion “Excellence”

- **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?

Threshold
4/5

Weight
60%





Evaluation criterion “Impact”

- **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?

Threshold
3.5/5

Weight
20%

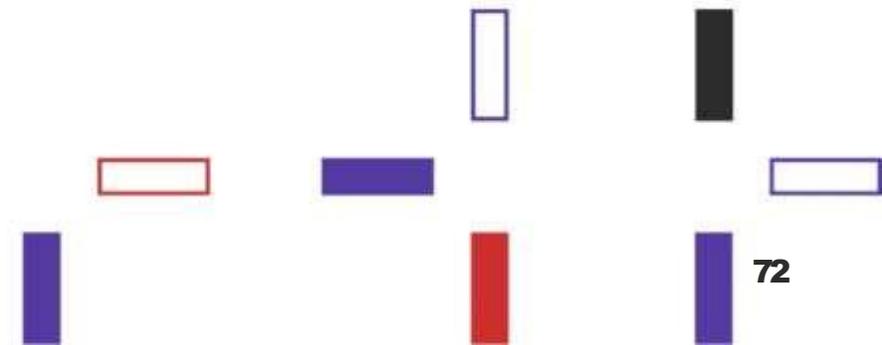


Evaluation criterion "Quality and efficiency of the implementation"

- **Quality of the applicant/consortium (depends if mono or multi-beneficiaries):** To what extent do(es) the applicant/consortium members have all the necessary high quality expertise for performing the project tasks?
- **Work plan:** How coherent and effective are the work plan (work packages, tasks, deliverables, milestones, timeline, etc.) and risk mitigation measures in order to achieve the project objectives?
- **Allocation of resources:** How appropriate and effective is the allocation of resources (person-months and equipment) to tasks and consortium members?

Threshold
3/5

Weight
20%





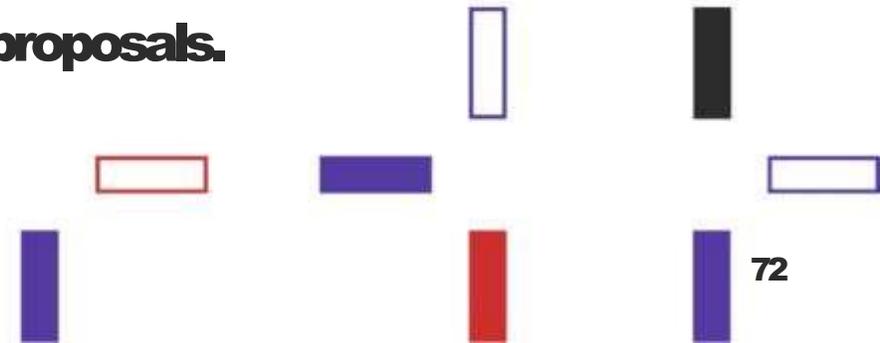
Step 2: Evaluation committee phase (1/2)

- **The evaluation committee will be composed of EIC expert evaluators and EIC Programme Managers**
- **The evaluation committee will consider together all proposals meeting the threshold set in the evaluation criteria in order to assess the best portfolio of projects to achieve the specific objectives of the Challenge**
- **A list of proposals will be established based on the evaluation scores from the first step, as decided by the committee, and on each proposal's contribution to the setting up of a consistent portfolio of projects.**
 - **Therefore, each proposal should specify which objectives, or aspects of objectives, it addresses taking into account the technical specifications in the Challenge Guide. (e.g., potential applications, range and expected outcomes of the projects, and the associated risks for achieving them, TRLs of the different tools and technologies proposed).**



Step 2: Evaluation committee phase (2/2)

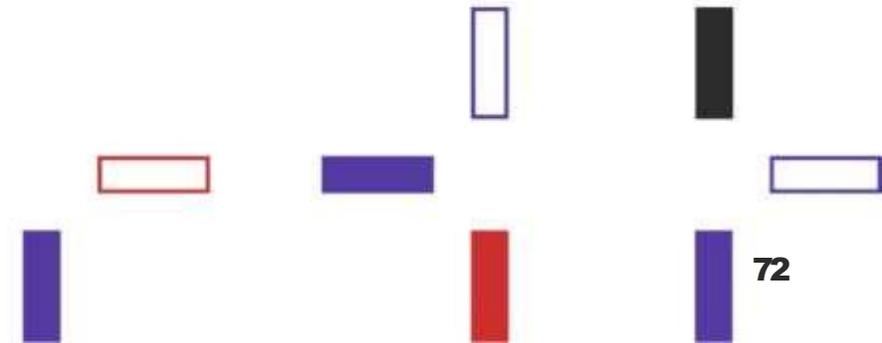
- Portfolio considerations **will be detailed in the Pathfinder Challenge Guide, as it is topic and domain specific. As a general principle, in order to balance out the portfolio, a categorisation of the proposals will be used, and the proposals will be allocated to different components or categories. Example of possible categories are:**
 - **building blocks or subsystems**
 - **technical areas and/or competing technologies**
 - **risk level, size, budget.**
- **A suitable portfolio of proposals to be funded will be selected by the evaluation committee from the highest scoring ones for each category or component and proposed for funding.**
- **The evaluation committee may also propose adjustments to the proposals.**





Feedback to Applicants

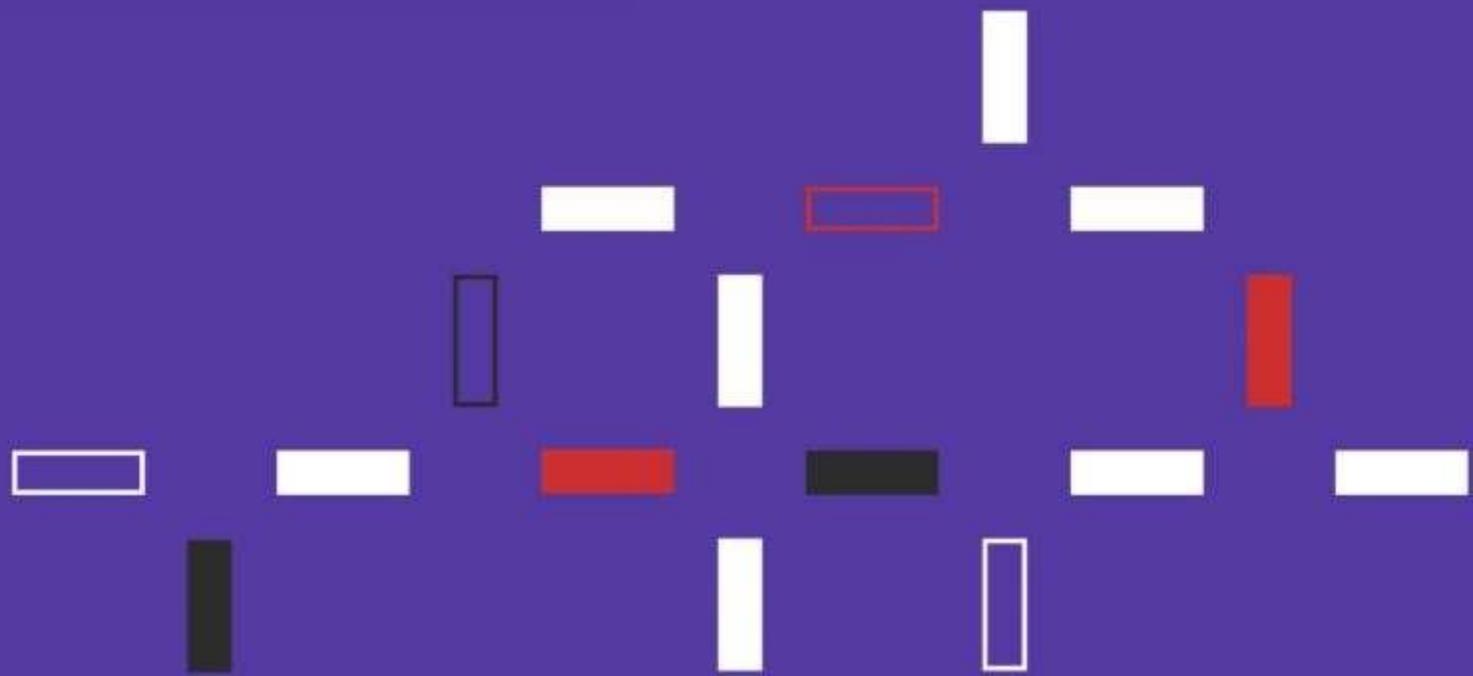
- **All applicants will receive a collation of the comments from the individual reports or excerpts from them.**
- **Applicants of proposals above threshold assessed further by the evaluation committee will also receive summary comments of the committee's assessment.**





EIC Pathfinder Challenges

Topics





Call 2022 – Summary table

	Pathfinder Challenges
Total budget	€167 million
Proposals (indicative)	Up to €4 million
Funding rate	100% of eligible costs
Opening	16 June 2022
Deadline	19 October 2022 at 17.00 CET
Length of proposal	25-page proposal
Applicants	1. Single legal entities in a MS/AC (conditions apply) 2. Consortia: - If 2 partners: from different MS/AC, otherwise - Min. 3 partners from 3 different MS/AC (of which at least 1 partner in a MS) (unless differently stated in the Challenge chapter)



Pathfinder Challenges	Programme Manager
1. Carbon dioxide and nitrogen management and valorisation	Marco Pantaleo and Francesco Matteucci
2. Mid-long term, systems-integrated energy storage	Marco Pantaleo and Francesco Matteucci
3. Cardiogenomics	Danos Arzimanoglou
4. Healthcare Continuum technologies	Enrique Claverol-Tinture
5. DNA-based digital data storage	tbc
6. Alternative Quantum Information Processing, Communication, and Sensing	tbc

Publication of the Challenge Guide:
Before Call opening

Call opening:
15 June 2022

Deadline:
19 October 2022 at 17.00.00 CET

Indicative budget:
167 MEURO



Pathfinder Challenge II.2.1; Carbon dioxide and nitrogen management and valorisation



Scope:

- Technologies, sustained by renewable energy, able to increase CO₂/N cycle efficiency introducing novel management and valorisation practices and approaches to reduce GHG emissions, nitrogen and carbon losses. The processes should focus on the use of renewable energy as input to develop carbon negative or net zero systems.

Specific objectives:

- PoC or lab-scale validated innovative technology avoiding the use of critical raw materials and adopting the life cycle and circular thinking driven approach.
- Integration at system or process level of the different steps of the CO₂/N management and valorisation process.

Expected outcomes and impacts:

- A net zero carbon process involving capture-storage-conversion of CO₂ from various sources and streams into renewable fuels and/or net zero materials, using renewable energy as input.
- N integrated management cycle to avoid or significantly reduce N release in conjunction with the conversion of N compounds to inert N₂, or N-compounds recovery.

Pathfinder Challenge II.2.2; Mid-long term, systems-integrated energy storage

Scope:

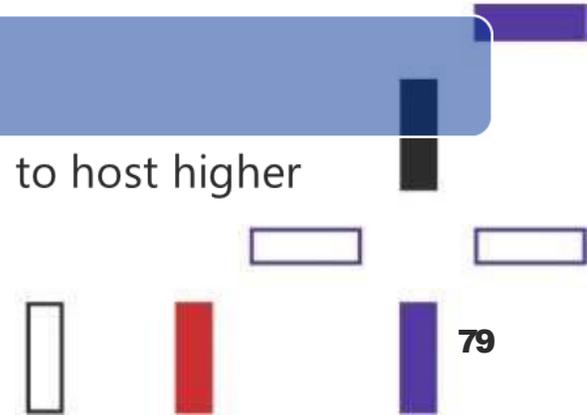
- Stable, reliable competitive technologies for mid-long term storage (from days to months) able to increase energy systems flexibility, sectors coupling, demand response and smart interoperability solutions, while avoiding the use of critical raw materials and adopting the life cycle and circular thinking driven approach.

Specific objectives:

- PoC or lab-scale validated innovative mid to long term storage solutions ranging from large to mid scale, excluding microscale.
- Solutions might include, amongst others, materials, components and control development/optimisation, thermal, chemical or electrochemical systems, system and process integration for industrial and building applications.

Expected outcomes and impacts:

- Mid-long term storage solutions enabling demand response strategies and capabilities to host higher penetration of intermittent renewable technologies.





Scope:

- **Address existing gaps in the diagnosis and treatment of CVDs: to pave the way for novel therapies for major CVD conditions including haemorrhagic and ischemic stroke, aneurysm, cardiomyopathy and certain types of arrhythmias and other conditions**

Specific objectives:

- **to identify single or multiple gene variants of high biological significance or other key molecules associated with the CVDs**
- **to identify novel targets based on these variants for specific CVD indication(s)**
- **to seek for novel technological solutions that could contribute to the development of major CVD conditions**

Expected outcomes and impacts:

- **identification of pathogenic mutations or multiple variants that have actionable effects**
- **accelerating the implementation of personalised care in CVD through targeted genetic testing**
- **gathering the necessary knowledge and data that would enable to apply disease modelling for CVD**



from episodic to continuous healthcare

Scope:

- **To develop systems and technologies starting at very low TRL for unobtrusive monitoring of human health with new continuous and personal imaging and sensing modalities, implementing continuous assessment, processing and analysis of the data to identify early signs of disease.**

Specific objectives:

- **develop a novel technology for unobtrusive proactive healthcare**
- **Proof-of-Concept and preliminary data suggestive of adequate safety and performance**
- **clinically acceptable solution amenable to successful evaluation under common Health Technology Assessment (HTA) methodologies**
- **the path to future integration in the European healthcare workflow should be plausible**

Expected outcomes and impacts:

- **the establishment of the basis for the transformation of the prevailing episodic, symptom-triggered, healthcare system into continuous healthcare, in which individuals are accompanied continuously and unobtrusively by health monitoring technology and practitioners, proactively offering diagnosis and treatment.**



Scope:

- to explore scalable and reliable high-throughput approaches for using DNA as a general data-storage medium
- to address the read/write/edit operations of digital data in synthetic DNA
- The use of DNA sequences as chassis for non-standard forms of information coding, or of other polymeric substrates and related coding/decoding techniques
- Scope for different scenarios for such a technology, for instance for data-processing, in-vivo sensing or fingerprinting

Specific objectives:

- new approaches for coding, decoding, modification or computational use of digital data in synthetic DNA with quantitative
- Proof-of-Concept of technical feasibility with indications of at least state of the art benefits and major operational characteristics and going well beyond for some of them
- end-to-end scenarios of use, be it for data storage) or other purposes that exploit the benefits of the technology.

Expected outcomes and impacts:

- a range of new techniques of applicability of DNA-based data storage;
- broader range of scenarios and uses for DNA-based data technologies;
- emergence and anchoring of a European innovation eco-system on DNA-based data technologies and applications
- contribution to standardisation in the field



Processing, Communication, and Sensing

Scope:

- to develop innovative approaches to encoding, manipulating, or storing information in quantum objects or to exploiting quantum phenomena for information processing, communication, and sensing in a way that differs from the mainstream approaches currently being pursued in quantum research

Specific objectives:

- to contribute to the development of information processing, communication or sensing components, for terrestrial or space applications
- describe how their proposed information processing would be controlled and could lead to the development of an information processing or communication device using a non-classical information theory approach;
- show how information processing or communications principles and architectures would demonstrate a quantifiable advantage with respect to classical approaches and mainstream quantum technology alternatives.
- show how the foundations for novel approaches to encoding, manipulating, and storing information would be established.
- describe how the proposed information processing or communication system would be controlled, programmed, and measured.

Expected outcomes and impacts:

- basis for future information processing, communication, and sensing technologies on ground and in space;
- collaboration with existing European platforms, infrastructures, and innovation eco-systems in quantum technology;
- increased diversity of information processing technologies platforms
- foster the interdisciplinary communities and innovation eco-systems that are driving new information processing or communication systems forward.



Before you decide to apply, you are strongly encouraged to read the respective EIC Pathfinder Challenge guide that will be published when the call opens on the EIC website and the European Funding & Tender Opportunities Portal.

This Challenge Guide will provide you with more information about the specific objectives of the challenge, e.g. a detailed assessment of the state of the art and related (existing) projects in the field, technical information to underpin the objectives, potential societal, economic, environmental impacts if the objectives are achieved, as well as relevant references.

The Challenge Guide will detail the portfolio considerations, as it is topic and domain specific.

Backing visionary entrepreneurs

EIC Pathfinder calls (Open, Challenges)
Q&A on EIC Pathfinder

European
Innovation
Council



Backing visionary entrepreneurs

Coffee Break

European
Innovation
Council



European
Innovation
Council



Backing visionary entrepreneurs

**EIC Transition calls (Open, Challenges)
Novelties in processes and calls in 2022**

Viorel Peca, Head of Unit, EIC Transition & BAS





EIC: Integrated, agile support across the full innovation spectrum from early stage research to start-up and scale-





- **Europe is extremely good at generating ideas and visions of breakthrough tech.**
- **But it is not very successful at pushing these ideas into concrete innovations into market.**
- **“The new European Innovation Council is there to help resolve this paradox,”**
- **EIC: from idea to market**
- **Transition is filling the gap between PT-Acc**



“We, Europeans, are excellent at making science with money. But we are not so good at making money out of science,”



all for

you!

Please ask yourselves these questions before you apply?

- **Is this novel technology ready for the next steps?**
- **Have you performed early market/competition explorations ?**
- **Do you have a motivated and diverse team for commercialisation?**

If the answer to each one of these questions is a clear 'yes', then EC Transition may be the right call for you.

Why EIC transition?

Supports the maturation and validation of novel technologies beyond proof of principle (TRL 5-6) and business activities towards commercialisation

The Open funding supports all technologies and innovations

Challenges: predefined thematic priorities aiming to establish portfolios of projects

Who can apply ?

H2020 FET schemes and EIC pilot

ERANET call - FET (CHISTERA, QUANTERA, FLAGERA)

ERC PoC projects

Financial contribution

Max EUR25 m €

Booster grants up to EUR50k to undertake portfolio activities



Transition: For Whom is it?

- **Innovative researchers who want to step out of the lab**
- **Innovators, entrepreneurs, SMEs, corporates not part of initial project.**
- **Restricted to applications based on results from following eligible projects:**
 - **EC Pathfinder, incl. EC pilot, H2020 FET-Open, FET-Proactive, Flagships calls**
 - **ERANETs under the FET programme (CHISTERA, QUANTERA, FLAGERA)**
 - **European Research Council (ERC) Proof of Concept (PoCs)**



- **Total budget: 130M€**
 - Open: 70M€
 - Challenge1: 30M€
 - Challenge2+3: 15M€+15M€
- **Publication and Opening: 9 February respective 2nd March**
- **1st cut-off Open and Challenges: 4th May**
 - **Interviews: planned for 2nd week of July (+/-)**
 - **Results: last week of July**
- **2nd cut-off Open and Challenges: 28th September**
 - **Interview: planned for 1st week of December (+/-)**
 - **Results: by the end of the year**
- **Part B, sections 1 to 3, = maximum 20 A4 pages including cover**

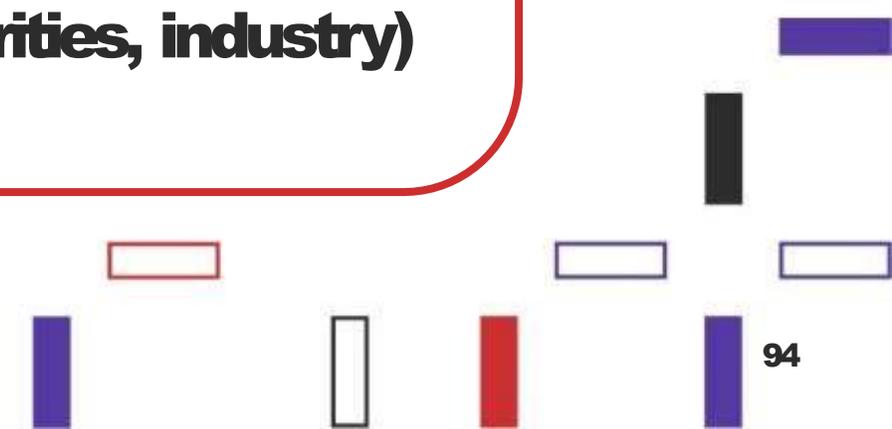


• **MONOBENEFICIARIES**

- **SMEs – no larger companies**
- **Research Organisations (universities, research or technology organisation, teams, individual PI and inventors)**

• **MULTIBENEFICIARIES**

- **Small consortia 2 to max. 5 legal entities: universities, research organisations, SMEs or larger companies, user/customer organisations (public authorities, industry)**



Can you apply?



European
Innovation
Council



- **Your proposal must build on an eligible project demonstrated PoP/PoC**
- **Eligibility is restricted to results from (original) projects* for which:**
 - **start date of the grant is more than 12 months before the date of the Transition call deadline**
 - **end date of the grant for the eligible project is less than 24 months from the date of the Transition call deadline**
- **You do not have to be the owner of the IP or original beneficiary, but**
- **must have the right to use the IP/ know-how generated in the initial project.**
- **Do talk to your NCP and consult WP2022 and FAQ.**

*** projects not beneficiaries**

- **2 Beneficiaries**
- **2 different countries**

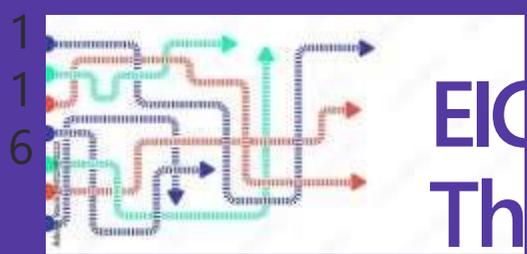
- **2 independent legal entities from two different Member States or Associated Countries**

- **3 Beneficiaries**
- **3 different countries**

- **3 independent legal entities from three different Member States or Associated Countries (of which at least 1 Member state)**

- **4 or 5 Beneficiaries**
- **Min 3 different countries**

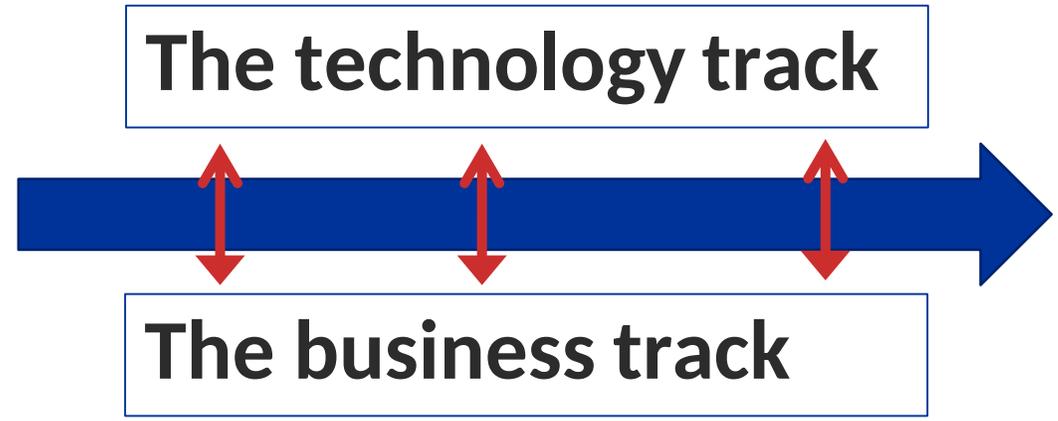
- **minimum 3 independent legal entities from minimum 3 different Member States or Associated Countries (of which at least 1 Member State)**



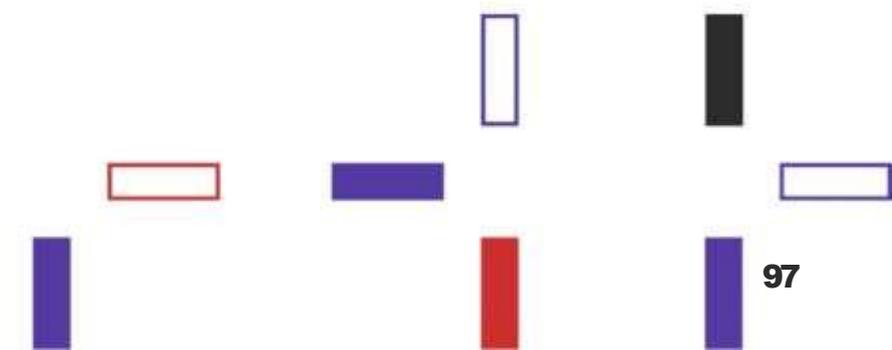
- **A ‘Transition to Technology’ to advance research up to TRL 5/6. This involves mainly strategic technologies that need more time to mature while improving also the Market Readiness Level.**
- **A ‘Transition to Market’ for projects led by an SME/Start-up with an interest in the results as single partner or in a small collaboration. The goal is to mature both the technology and market readiness.**
- **A ‘Transition to Entrepreneurship’ - Many research projects produce “side results”, often with higher TRL levels, that could be relatively quickly commercialised with the right “seed financing”.**

Core elements of a Transition proposal

The starting point in the project should be a working prototype (TRL3/4)



The end point should be a completely functional version of the technology tested or demonstrated in relevant environment (TRL 5-6), supported by a sound and implementable commercialisation strategy.



Evaluation of proposals and next steps



- **First remote evaluation phase by experts**
 - **Average of the individual scores per criteria (excellence, impact, implementation)**
 - **Overall score sum of the three averages**
 - **Feedback 9 weeks after the call deadline**
- **If successful, within 2x available budget, invited to a face-2-face interview**
 - **You may bring only people mentioned in the proposal**
 - **Jury composed of max 6 members, may include 1 program manager**
 - **Convincingly pitch your proposal and answer clarifying questions**
 - **Recommends a Go/No Go, no change in the overall score**
 - **Invitation 13w and feedback 17 weeks after the call deadline**
- **Grant agreement signed within 6 months from call closing, project starting <2-3M**



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 the potential for novel application?

Objectives: How credible and feasible are the objectives (and KPIs) for the planned technology development? How credible and feasible are the objective (and KPIs) for the planned business development process?

Methodology: Is the proposed methodology appropriate and sound, including consideration of the gender dimension in the envisaged application? To what extent will potential users, customers or other stakeholders be involved to test potential demand and acceptability? Is the technology developed in a safe, secure and reliable manner?



Impact (Threshold: 4/5)

Credibility of the impacts: To what extent the expected outcomes and impacts described are credible and realistic within the project and beyond? For EIC Transition Challenges ONLY: To what extent the proposed application has the potential to impact on the specific objectives set out in the Challenge?

Economic and/or societal benefits: To what extent does the proposed innovation create substantial demand and new European or global markets? To what extent is the proposed innovation expected to generate other positive impacts (employment, societal, environmental, scientific, etc.)?

Investment readiness: To what extent the proposed measures contribute to make the project outcomes investment ready (including through IP protection, partnership or market validation)?



Quality and efficiency of the implementation (Threshold 3/5)

Quality and motivation of the team: To what extent do the applicant(s) bring the necessary high-quality expertise, capabilities and motivation to move decisively towards innovation, create a unique commercial value from the emerging technology and develop an attractive business and investment proposition?

Milestones and Work plan: Are milestones adequately and clearly defined (measurable, timed, etc.) to track progress along the pathway towards objectives? How coherent and effective are the work plan (work packages, tasks, deliverables, timeline, etc.), the innovation methods and the risk mitigation methods, in order to reach the milestones and to achieve the project objectives?

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



Projects funded in Transition can also:

- **Apply to receive ad hoc grants with fixed amounts of up to EUR50 000 to undertake portfolio activities**
 - **Max of 1 ad hoc grants per project to one grant holder or a group of them**
 - **After discussion with Programme Manager or following a project review**
- **Submit an Accelerator proposal via the Fast-Track scheme**
 - **Project review to determine innovation and market deployment potential and decide if project is suitable for Accelerator support**
 - **If successful, submit directly to full application phase**
- **Apply to Tech2Market Acceleration and BAS Services**



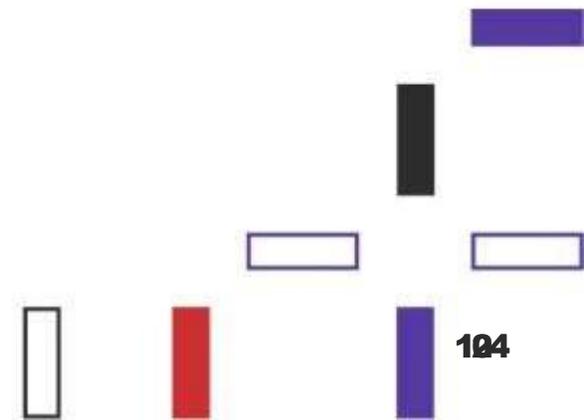


- **Individual SME applicant invited to the interview and not selected for funding will be awarded 'Seal of Excellence'.**
- **Applicants awarded the 'Seal of Excellence' will have access to EIC Business Accelerator Services and support to access other sources of funding.**
- **Only awarded to those applicants who give consent to sharing the data about their application with other eligible funding bodies**





EIC Transition Challenges



The specific Transition challenges for WP2022



I. Green digital devices for the future

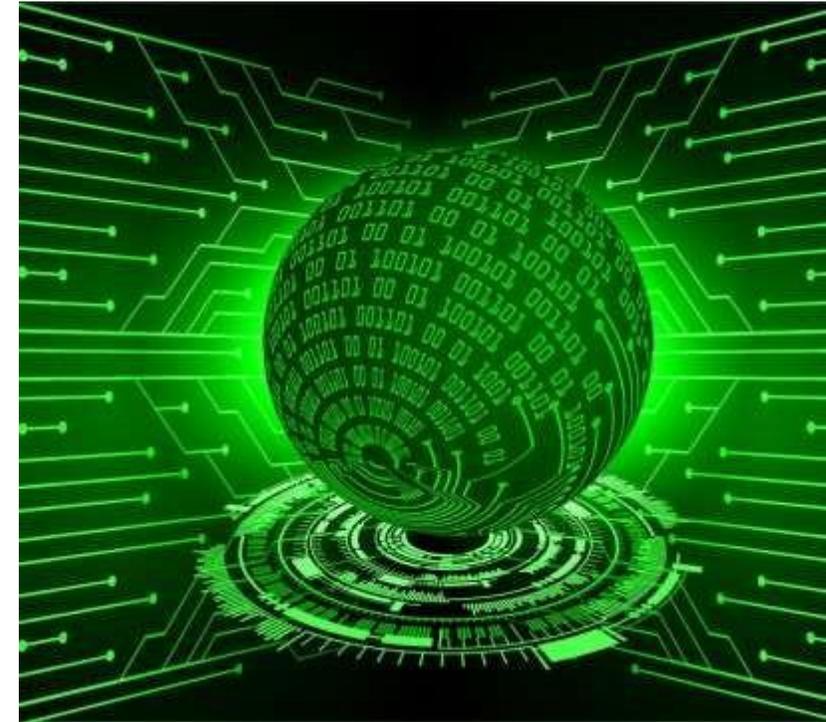
II. Process and system integration of clean energy technologies

III. RNA-based therapies and diagnostics for complex or rare genetic diseases





- **Current paradigms reaching performance+ miniaturisation limits**
- **While consuming more & more energy**
- **And having high(er) ecological footprint**
- **Emerging technologies are slowly/finally maturing**



The challenge:

- **radically improve/ solve one/more of the following issues:**
 - **energy efficiency, use of non-critical and non-toxic raw materials,**
 - **ensure circular approaches and/or a high degree of recyclability,+**
 - **maintaining or even improving on performance & miniaturisation**

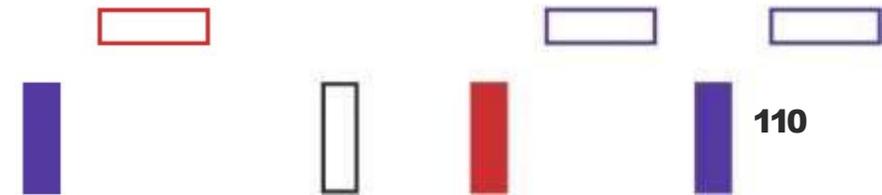


- **demonstrating novel digital devices and/or architectures with clear adv.**
- **harnessing a not explored process or existing devices in novel modes**
- **identify what are the limits of the current paradigms trying to improve**
- **propose relevant metrics/KPIs to track progress & demonstrate success**
- **describe control and programme (if applicable), input/output interface**





- **commercial emergence of new class of radically improved green digital devices**
- or
- **solve one/more of the issues mentioned: energy efficiency, recyclability ...**
- **while maintaining or improving on performance and miniaturisation.**
- **The goal is tackling as many of them as possible, ideally all.**
- **initial validation of a business model and a business plan are also expected**





Projects are expected to contribute to at least one of the following impacts:

- novel devices and/or architectures with significant decrease in energy consumption while improving on speed/performance and miniaturisation.**
- disruptive hardware components with significant progress towards the wafer-scale integration and industry compatible solutions**
- novel designs of largescale complete systems that include NG devices with emphasis on compatibility, integration different technologies. CMOS**

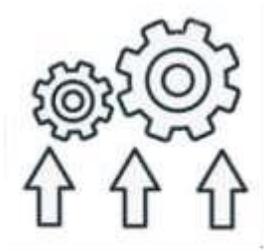


At the end of the project:

- **mature prototype validated/ demonstrated in relevant environment TRL5/6**
- **demonstrate the advantage in specialised or general applications/ device:**
 - **unlock the full potential of the field**
 - **generate high impact in term of economic returns and societal benefits**

Specific conditions:

- **Aim is to have impact on sustainability and ensuring circular approaches**
- **If at the end of the jury stage the combined budget of GO proposals exceed the allocated budget, the portfolio considerations will be applied.**
- **For this specific Challenge, the portfolio consideration will be a balanced portfolio of projects in term of technologies and/or type of device.**



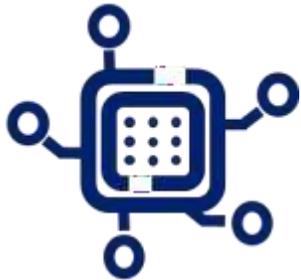
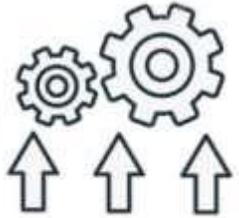
- **The integration sought in this call is the combination of at least one technology resulting from an eligible project in a system or complex process comprising the elements of energy production or conversion, storage, including renewable fuels, and / or final use.**



- **The specific objectives of this call are to support the further development of energy technologies, including renewable fuels enabling the decarbonisation of energy sector and to facilitate the selection and integration of these sustainable technologies into existing and new energy systems and devices, both at component, process or at infrastructure level.**



• **The expected outcomes of your EIC Transition Challenge proposal are:**



- An energy generation/recovery/storage technology **that can positively demonstrate a clearly defined use case, with clear indication and quantitative measurement of the investment costs, efficiency, dynamic performance, durability and sustainability versus established alternative technologies, and integration of the proposed technology at system/process level**
- A draft, yet credible, business model **for the deployment and use of the energy system in the relevant environment,**
- An exploitation strategy including the IP protection **of the novel results integrated in the energy system.**

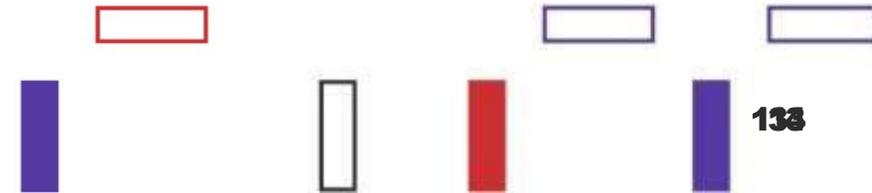




- **The number of RNA drugs under development, and in clinical trials, is growing rapidly, and so is the number of biotech start-ups and academic groups in the field with transformative ideas.**



- **The clinical translation of mRNA-based therapeutics requires delivery technologies that can ensure stabilisation of mRNA under physiological conditions. Hence, novel delivery strategies providing more effective and safer delivery of the mRNA-based therapeutic into most type of cells, are required for mRNA based clinical candidates.**





Specific objectives



- **Advance, beyond the state-of-the-art, RNA delivery methods, including robust mRNA formulations, that would enable effective and safe delivery of mRNA into the cells;**



- **Design, develop and preclinical validate of novel miRNAs (miRNA lncRNA, tRNA or siRNA-based) therapies for complex or rare genetic diseases;**

- **Develop and validate novel RNA-based diagnostics and RNA-based predictive biomarkers that would allow for early and more accurate diagnosis and for favourable or non-post-treatment prognosis, respectively.**



Proposals submitted to this EIC Transition Challenge

should

and aim to

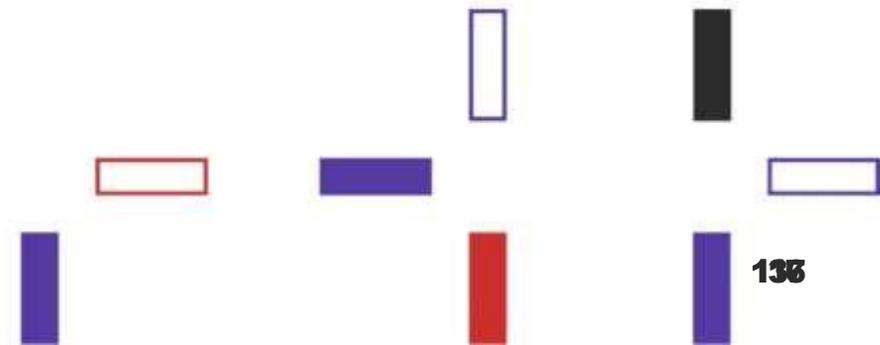
- perform the necessary R&D to advance from an existing/demonstrated proof-of-principle technology to a mature version ready to initiate clinical evaluation;
- develop a commercialisation/exploitation strategy, including the formal IP protection of the novel result, qualitatively and quantitatively outlining the proposed path to patient and describing an investable proposition.





Lessons Learned

- **from Transition 2021 call and evaluation**
- **And from the T2I pilot projects under H2020**



European Innovation Council Transition Challenges & Open

Successful proposals | Deadline 22 September 2021



29

PROJECTS CHOSEN FOR OPEN CALL



13

PROJECTS CHOSEN FOR CHALLENGES CALL

9 Medical Technology and Devices;
4 Energy harvesting and storage
technologies



292

TOTAL PROPOSALS SUBMITTED



€99M

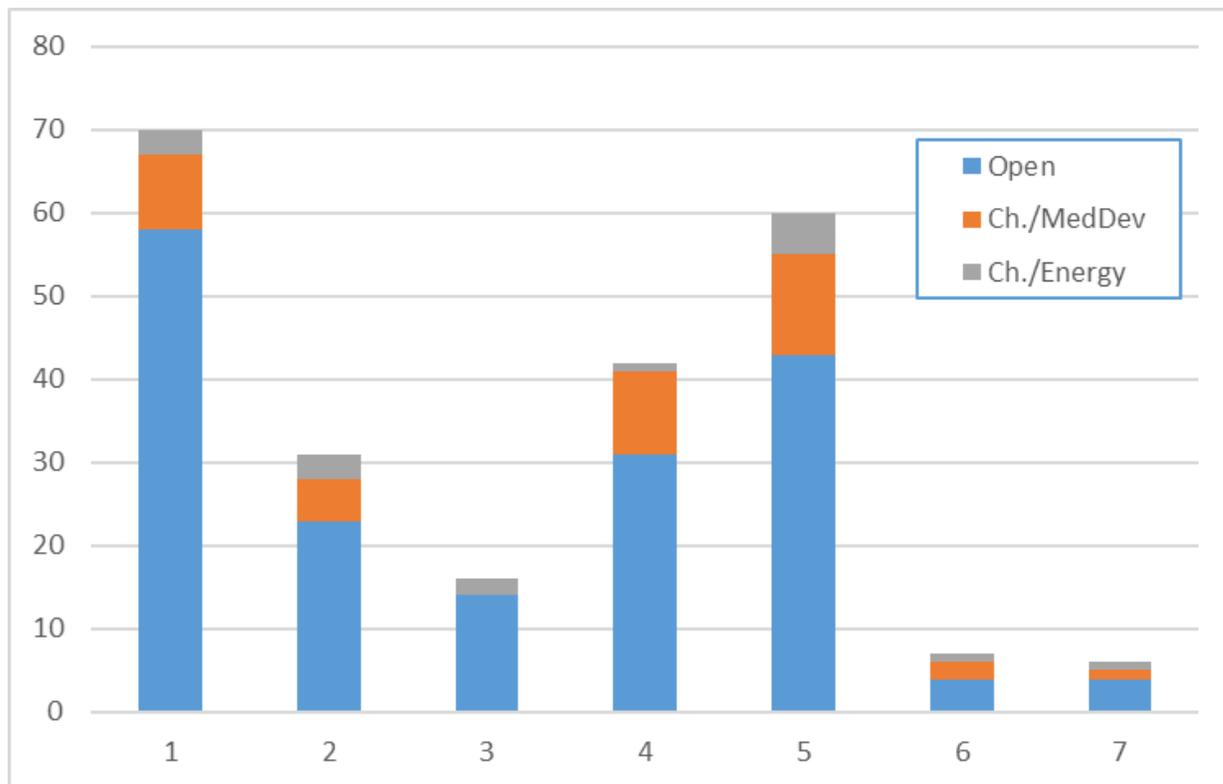
TOTAL EU CONTRIBUTION



24

COUNTRIES

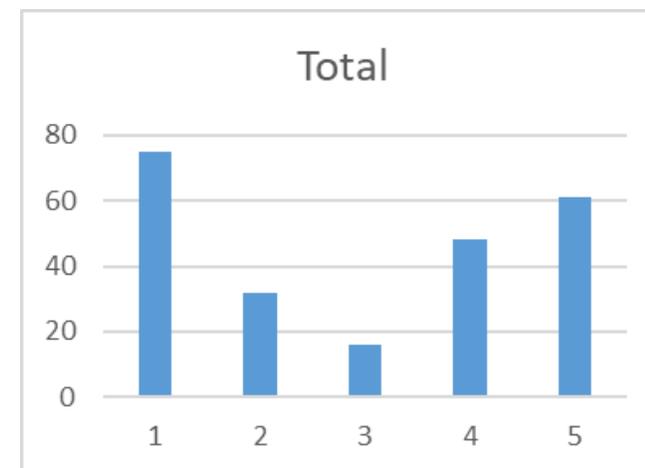
Stats, Consortia size



Affiliated 27; Associated 21 (15 CH participants)

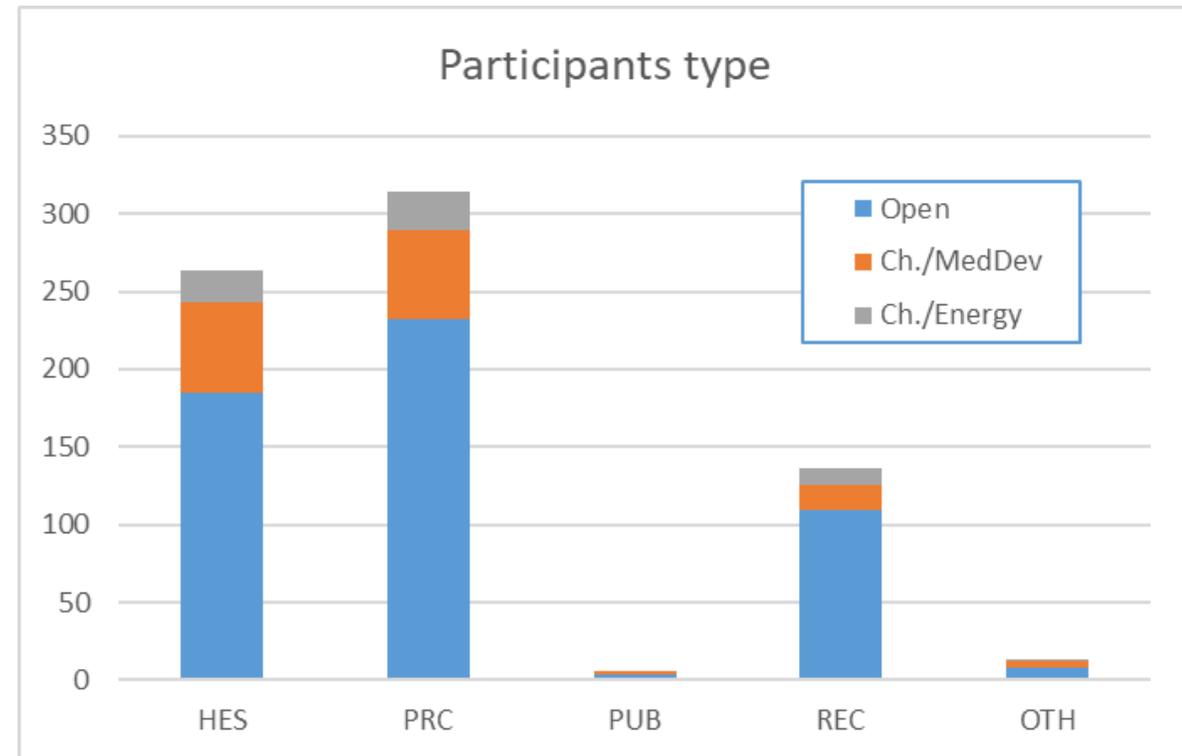
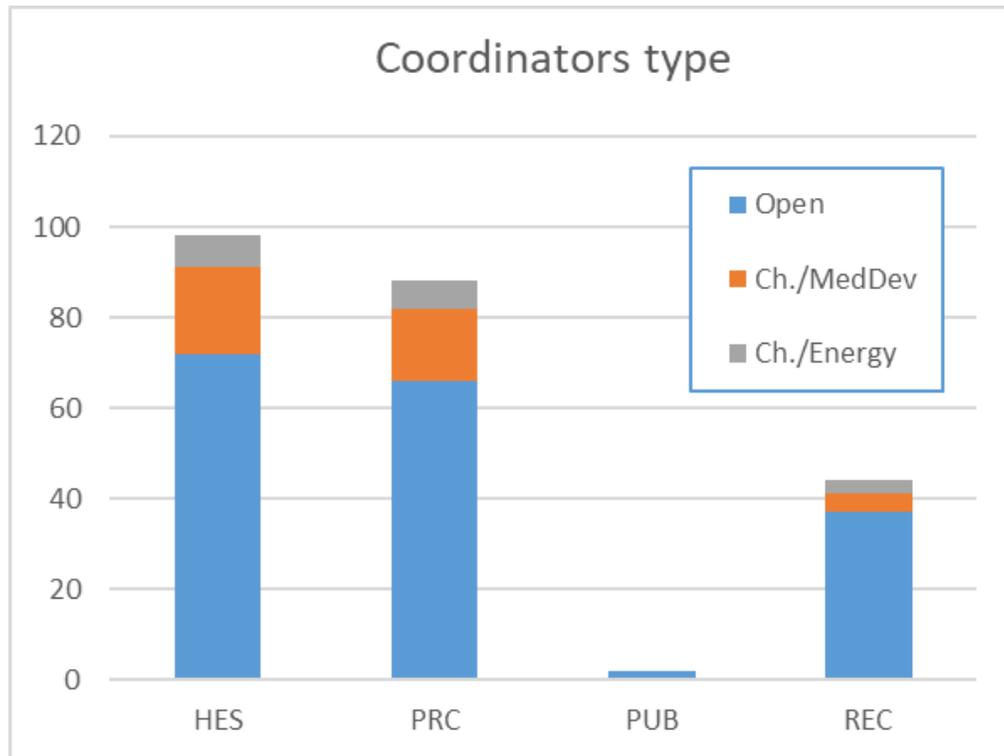
“V” rule conjecture

- **Single beneficiary – technology pull (business)**
- **More beneficiaries – technology push (science)**
- **SMEs are 33 out of 70 monobeneficiaries**





Stats, Coordinators/Participants type



REC= research organizations, PUB= public bodies, PRC= private sector
HES= higher education institutions, OTH= other participants.



Call	Submitted	Ineligible	Evaluated	Funded	Success rate
Transition Challenges	73	16	57	13	23%
Transition Open	219	46	173	29	17%
Total	292	62	230	42	18%

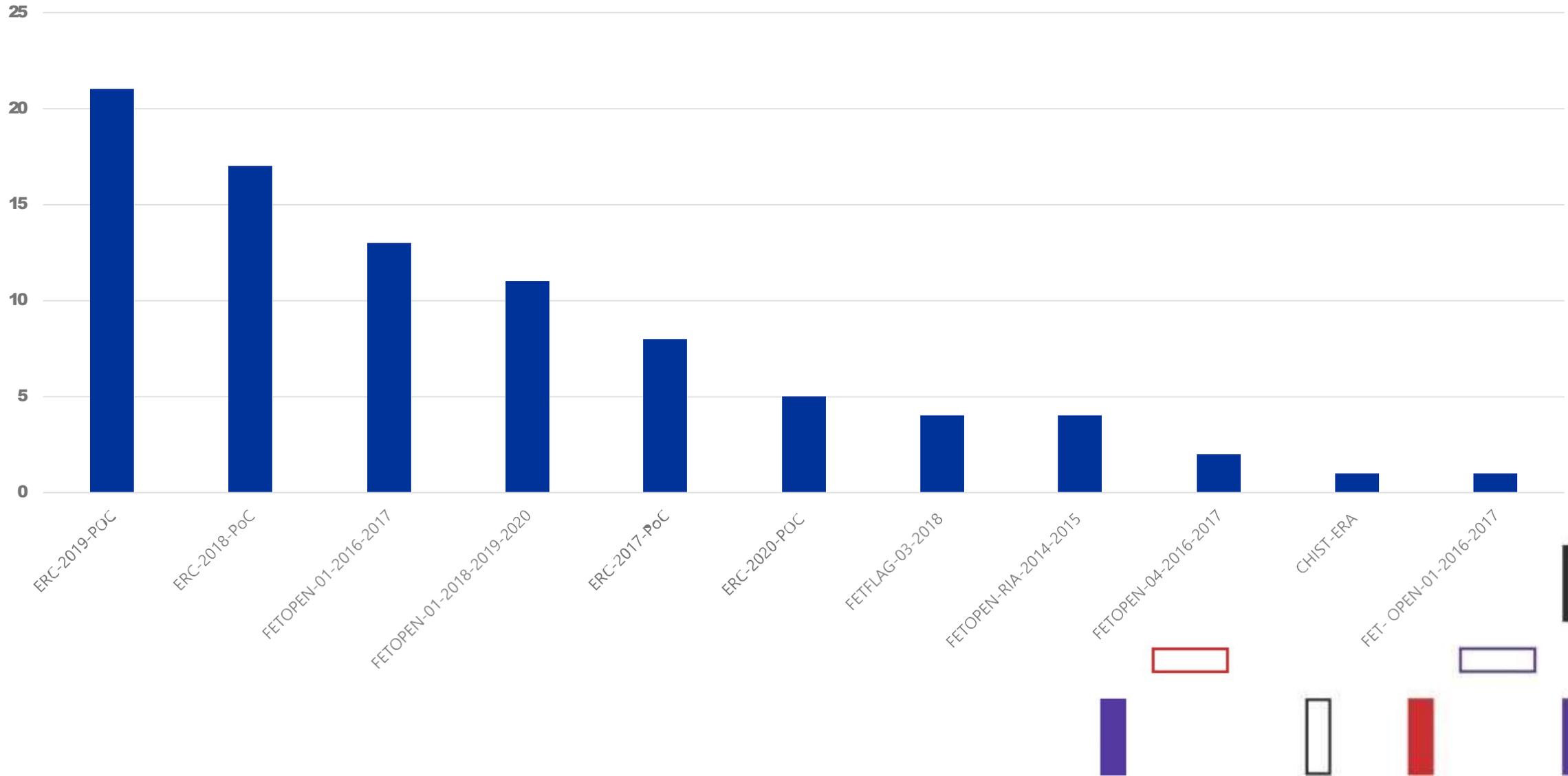
10 SMEs received Seal of Excellence



	Reason	Total proposal	Rate
Challenges	16	73	22%
Composition of consortium	5		
Incomplete	11		
Open	46	219	21%
Composition of consortium	29		
Incomplete	9		
non eligible linked project	8		
Grand Total	62	292	21%



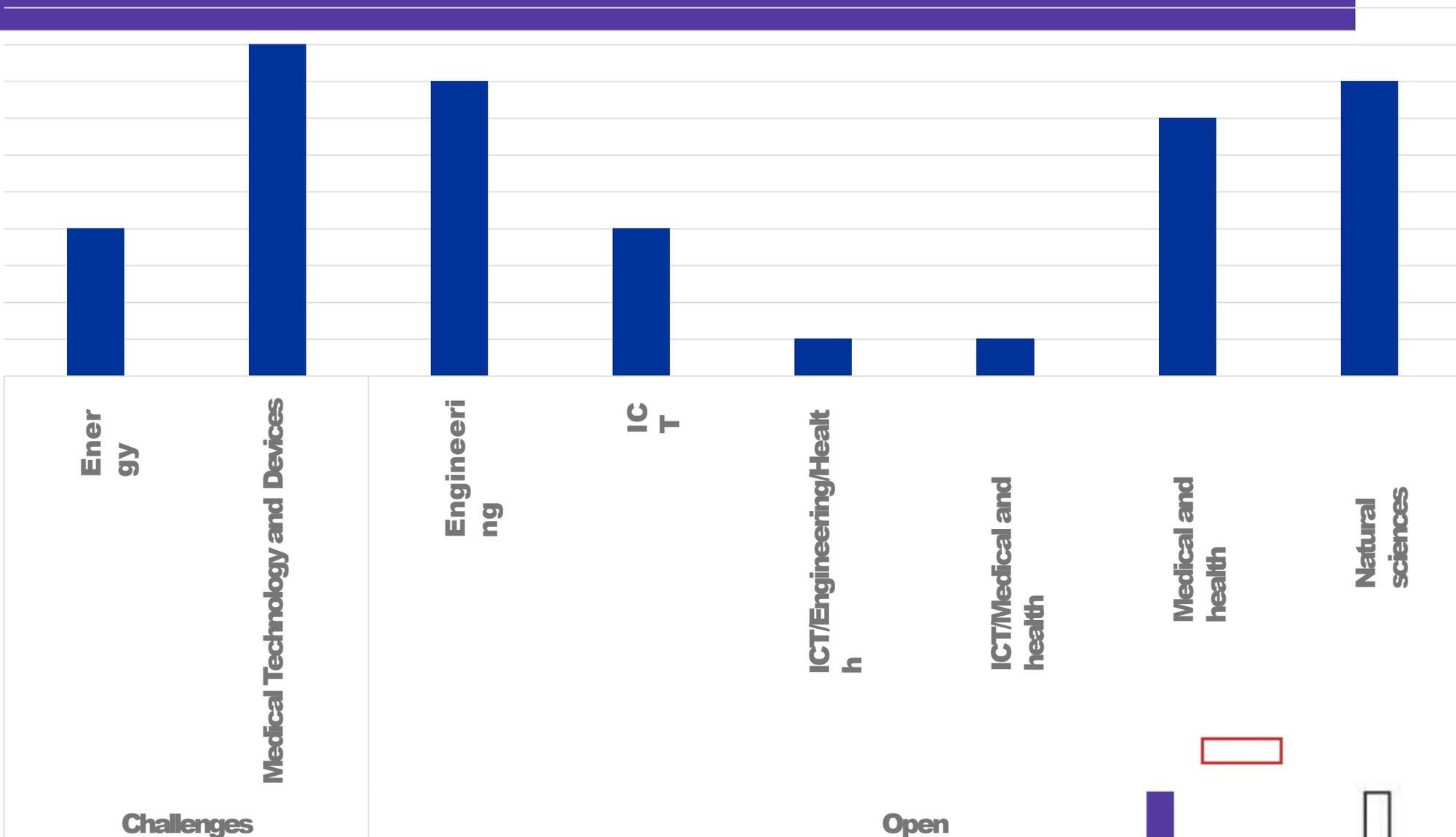
Number of proposals





10

9
8
7
6
5
4
3
2
1
0



Energy

Medical Technology and Devices

Engineering

ICT

ICT/Engineering/Health

ICT/Medical and health

Medical and health

Natural sciences

Challenges

Open

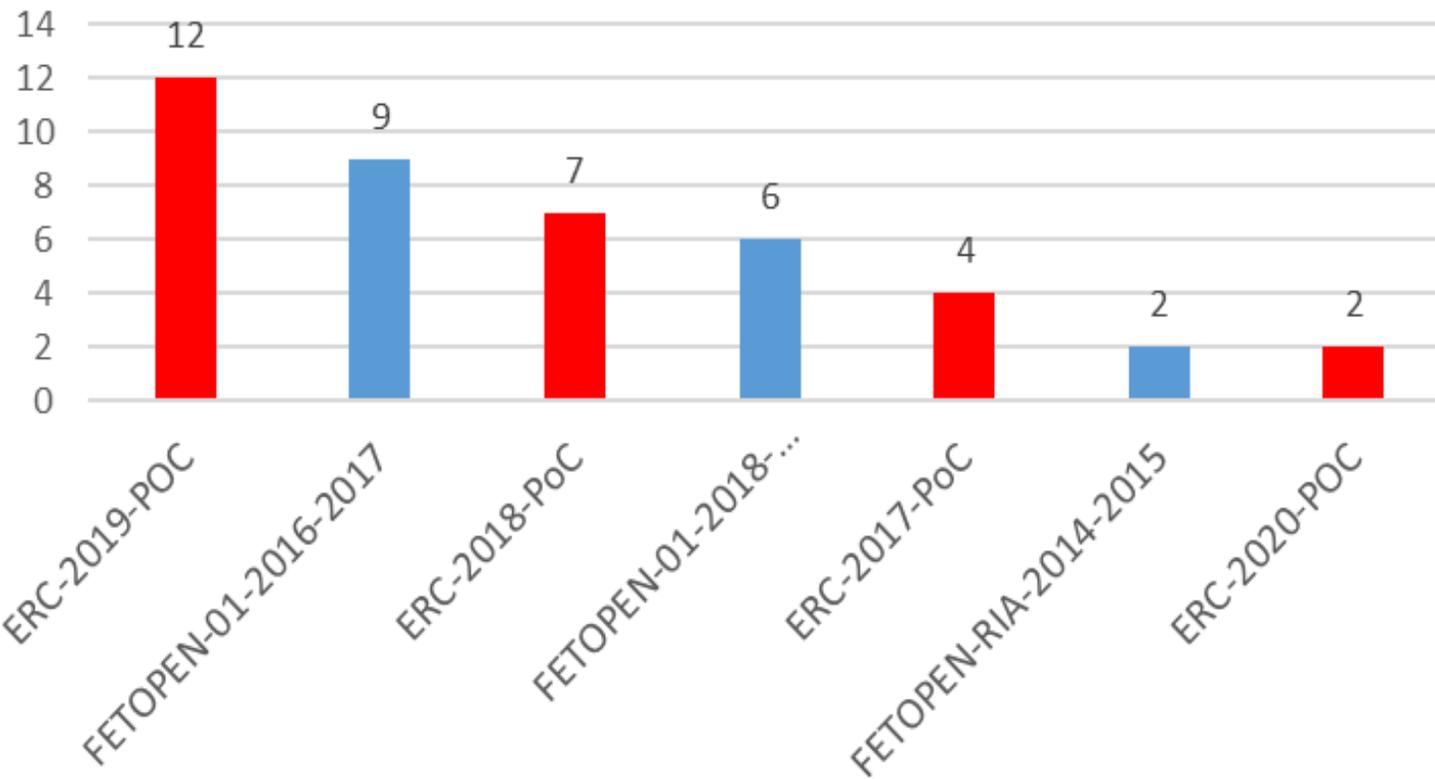




Origin of the successful proposals

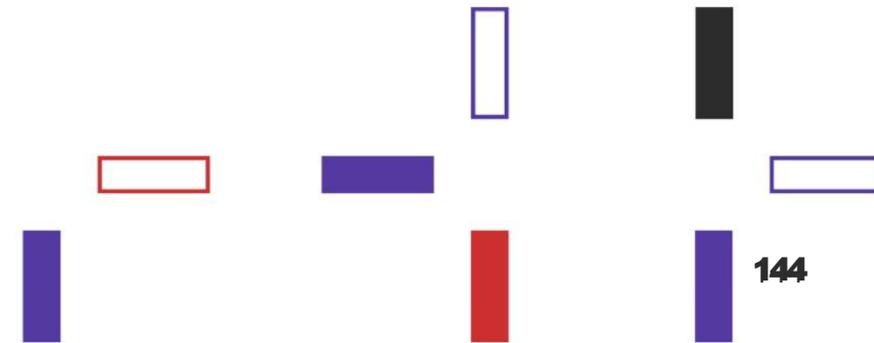
Count of PROPOSAL_NUMBER

ERC POC are 60% of the successful proposals



Eligible Call ▾

- **25 proposals selected for funding are originated by ERC Poc projects (60%)**
- **17 proposals selected for funding are originated by FETOpen projects**





Nature of the applicants

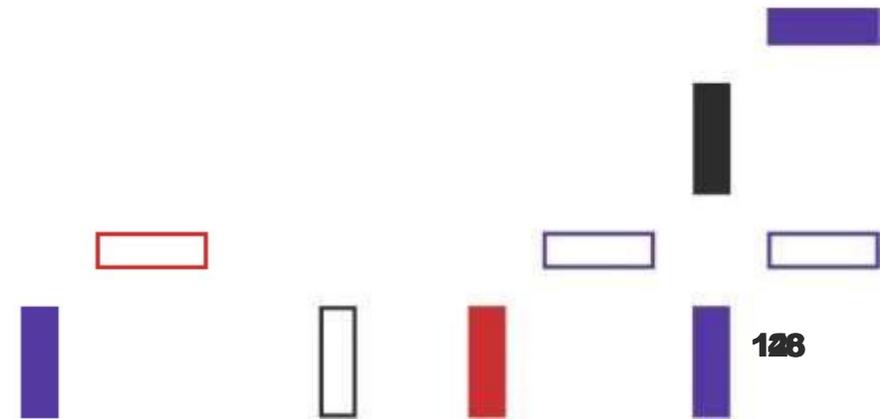
# SMEs per Project	ERC	FETOpen	Total
0 SME onboard	12	5	17
1 or more SME	13	12	25
Total	25	17	42

- **36 (29%) SMEs out of 126 Beneficiaries**
- **17 (40%) proposals selected for funding have no SME onboard**
- **12 (70%) of the 17 FETOpen proposals selected for funding come with one or more SME**





- **Linked project and IPR declarations must be reported on cover page of the proposal**
- **Applicants must respect consortium composition indicated in the Work Programme (e.g. maximum 5 beneficiaries)**





The applicants must provide convincing answer to

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



- **Budget** 2.5 M€ is the standard maximum budget,
- **Duration**: 36 months is the standard maximum duration
- **Early start** of the project after grant signature (if successful).

• higher amounts and longer durations should be an exception and very convincingly justified



Technology Readiness Level:

- **Level 3 is the starting point in the proposal, cannot be less**
- **Level 4 is preferred as to avoid surprised due to technological risks**

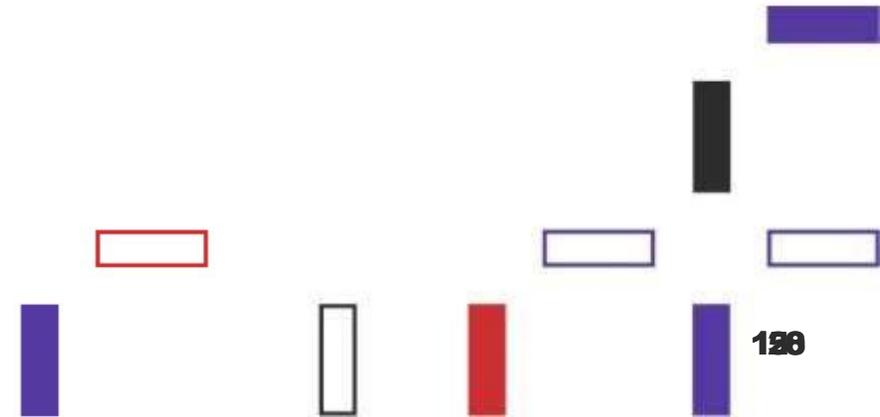
Business validation:

- **Preliminary Business and Market exploration must be integral part of the proposal**
- **Business Model validation and planning next steps is equally important to the technology development and cannot be delegated.**



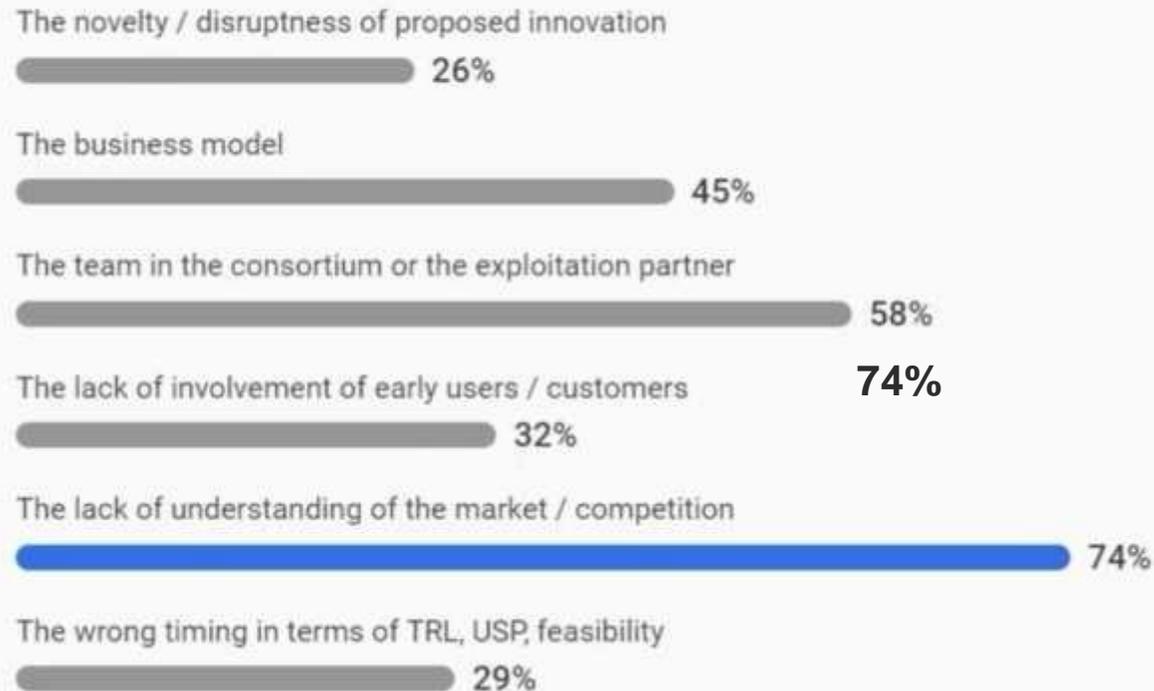
Applicants must provide clarity on aspects related to

- **Technical milestones,**
- **IPR ownership,**
- **budget and allocation of resources,**
- **technical and business risks**
- **actual and expected TRLs,**
- **interdependence of work packages and tasks**
- **the future exploiting team**
- **the credibility of the business objectives.**

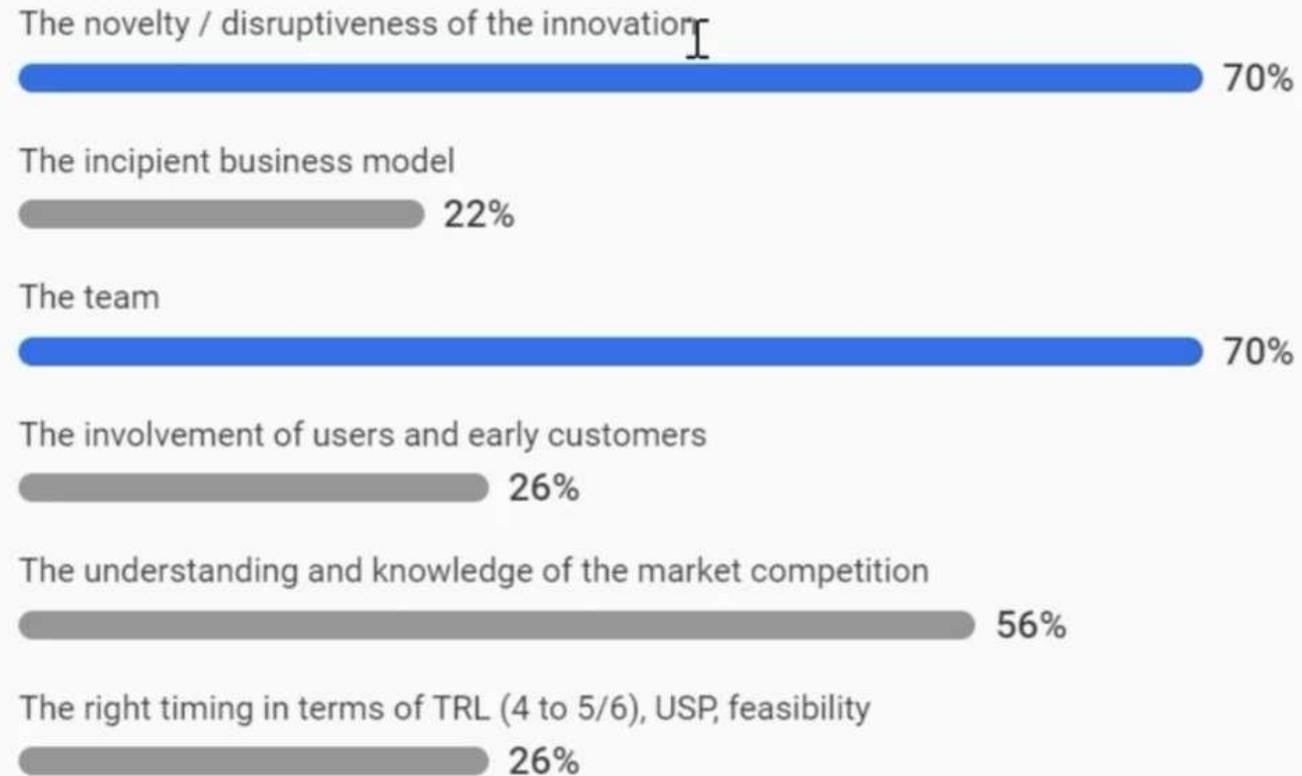




What are the major weaknesses of the NoGO proposals discussed so far?



What are major strengths of the GO proposals discussed so far





- **New length of the proposal: 20 pages including the cover page**
- **Cover page: must include declaration about the linked project and the ownership of IPR**
- **If applicant(s) is (are) not owner(s), a letter from the owner(s) must be uploaded as a separate file**
- **Eligible linked projects: indicative list of eligible linked projects will be provided (amendments and other events may have impact on the eligibility).**



- **FADEQ - working on a fully automated cell-free DNA extraction and quantification of liquid biopsies (blood tests with growing potential in diagnostics for cancer and prenatal screening) safely, from patient to the lab.**
- **THERMOBAT - develops an innovative Latent Heat Thermophotovoltaic (LHTPV) battery for long duration storage (10 to 100 hours) and combined heat and power (CHP) generation.**
- **NanoVision - an affordable, compact, multi-modal and high-throughput photonic-chip based optical nanoscopy (super-resolution optical microscopy).**
- **VRP - aiming to commercialise the novel technology called Visual Robot Programming (VRP): a no-code gesture-control robot programming solution. Using this intuitive technology, any user is empowered to teach industrial robots without prior knowledge in robotics and with minimal training.**



Conclusions

- **Honestly answer all of the 3 guiding questions in the beginning**
- **Pay attention to your motivation, why you want to apply?!**
- **Pay attention to minimum maturity of your technology**
- **Work in parallel to both technological and business maturation**
- **Do assemble a winning team with dual competences**
- **Be ready to start your projects immediately.**
- **If you succeed the evaluation do make use of T2M BAS opportunities**

Backing visionary entrepreneurs

EIC Transition calls (Open, Challenges)
Q&A on EIC Transition

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