



European Research Council

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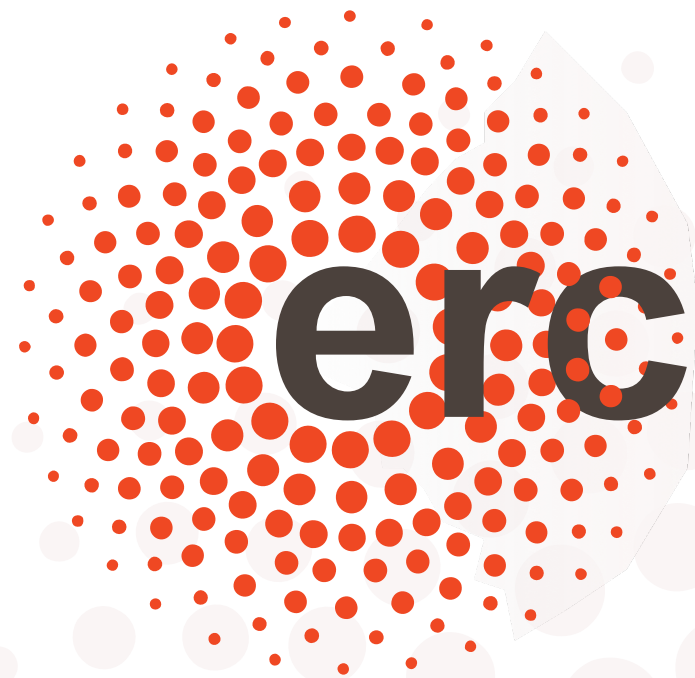
The European Research Council

ERC Proof of Concept in Horizon Europe

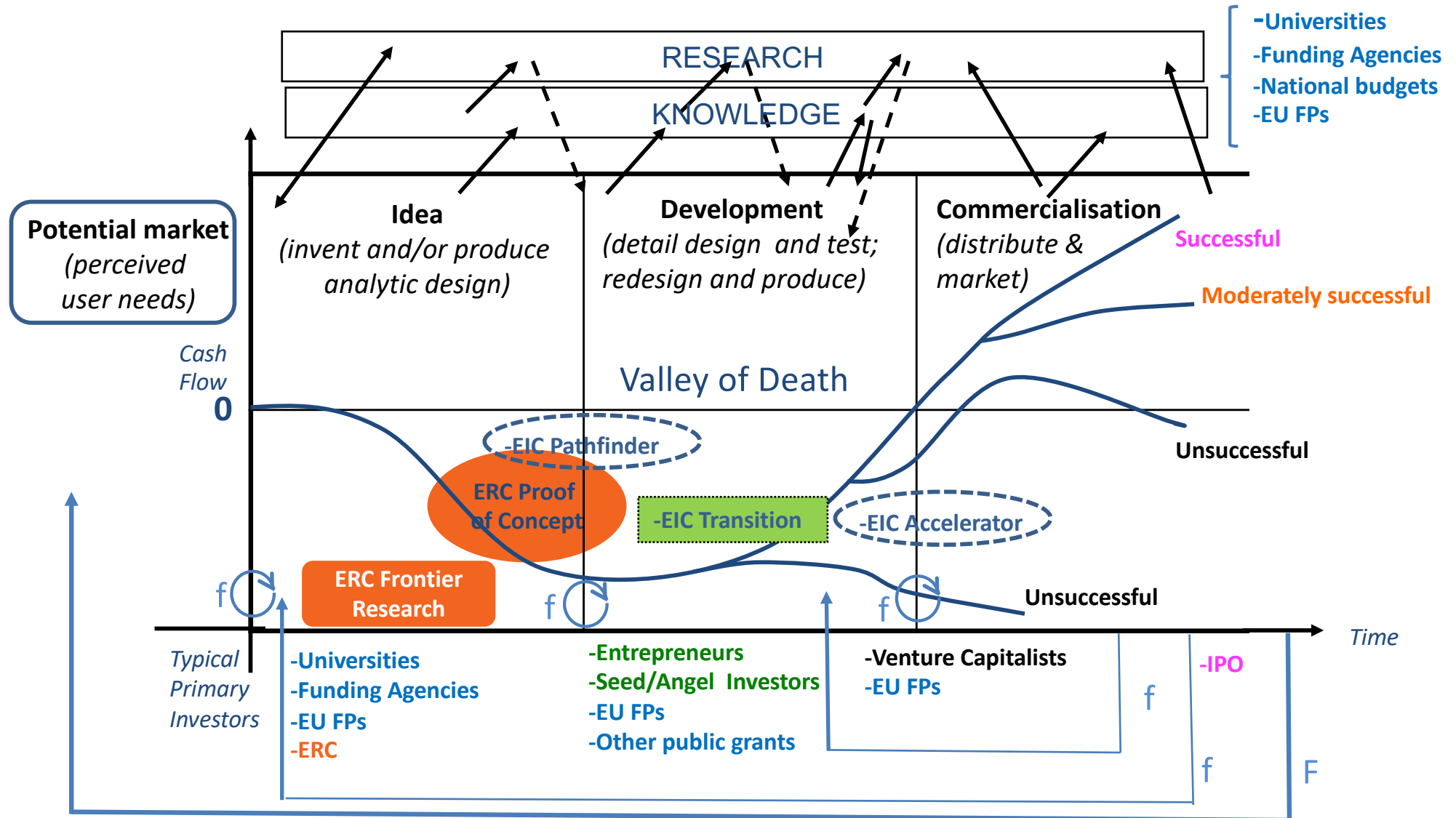
Laura PONTIGGIA

ERC Executive Agency

Support to the Scientific Council



European Innovation: financial support



EIC main instruments and characteristics

Pathfinder

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

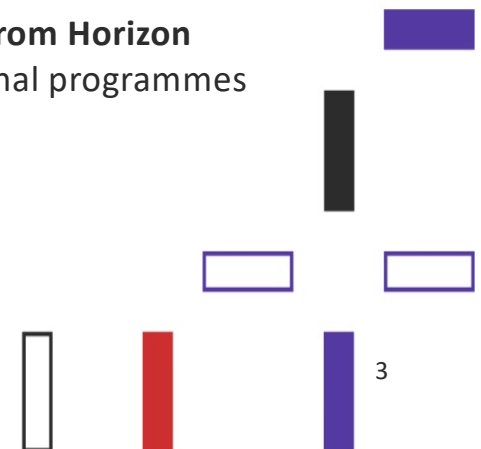
Transition

- **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



Horizon Europe

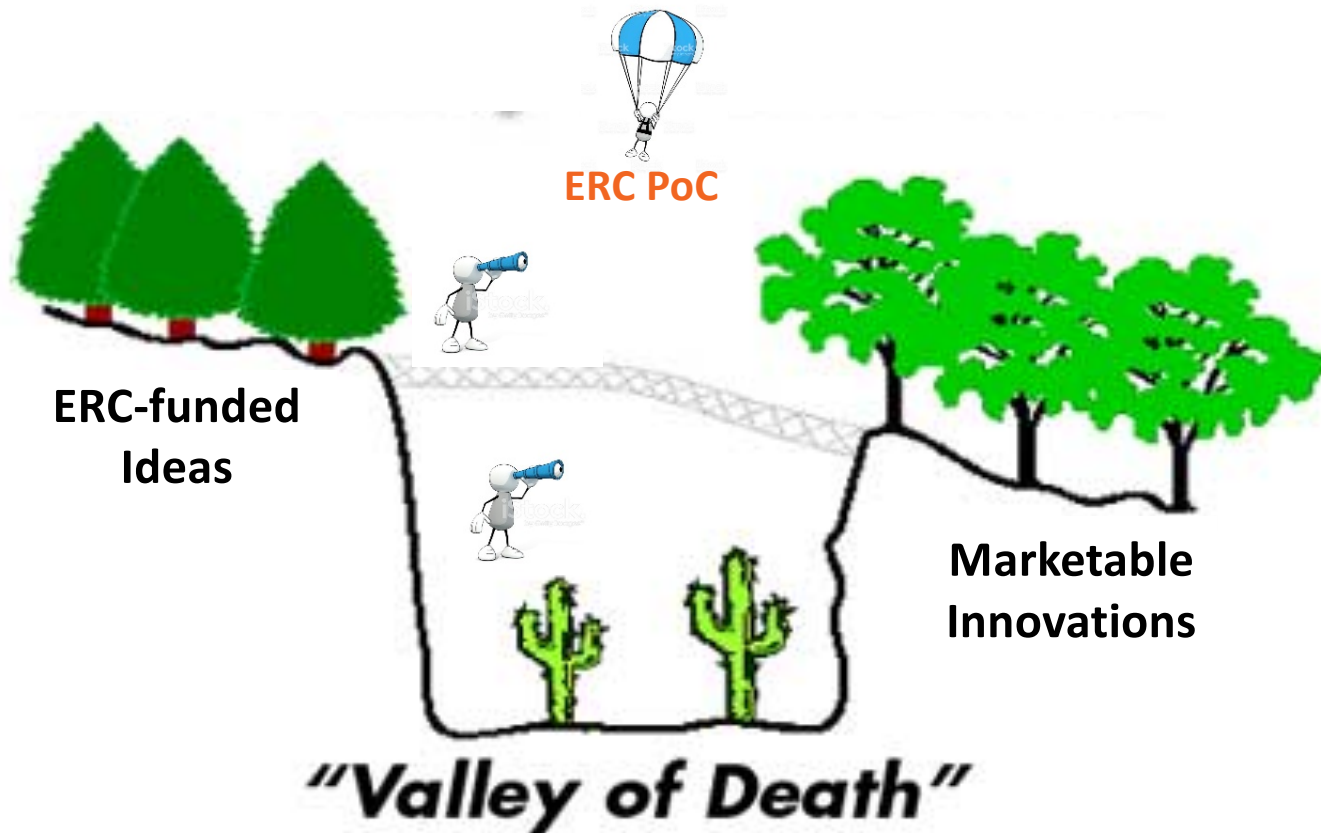
a change in the legal basis regarding PoC

- **DEFINITIONS (in HE Regulation):**
 - ERC frontier research (including ERC Proof of Concept) means principal investigator-led research actions, hosted by ERC only single or multiple beneficiaries
- **Rules for participation (all the Framework Program)**
 1. A proposal shall be evaluated on the basis of the following award criteria:
 - (a) excellence;
 - (b) impact;
 - (c) quality and efficiency of the implementation.
 2. Only the criterion referred to in point (a) of paragraph 1 shall apply to proposals for ERC frontier research actions.

2011: PoC was created to bridge the Valley of Death



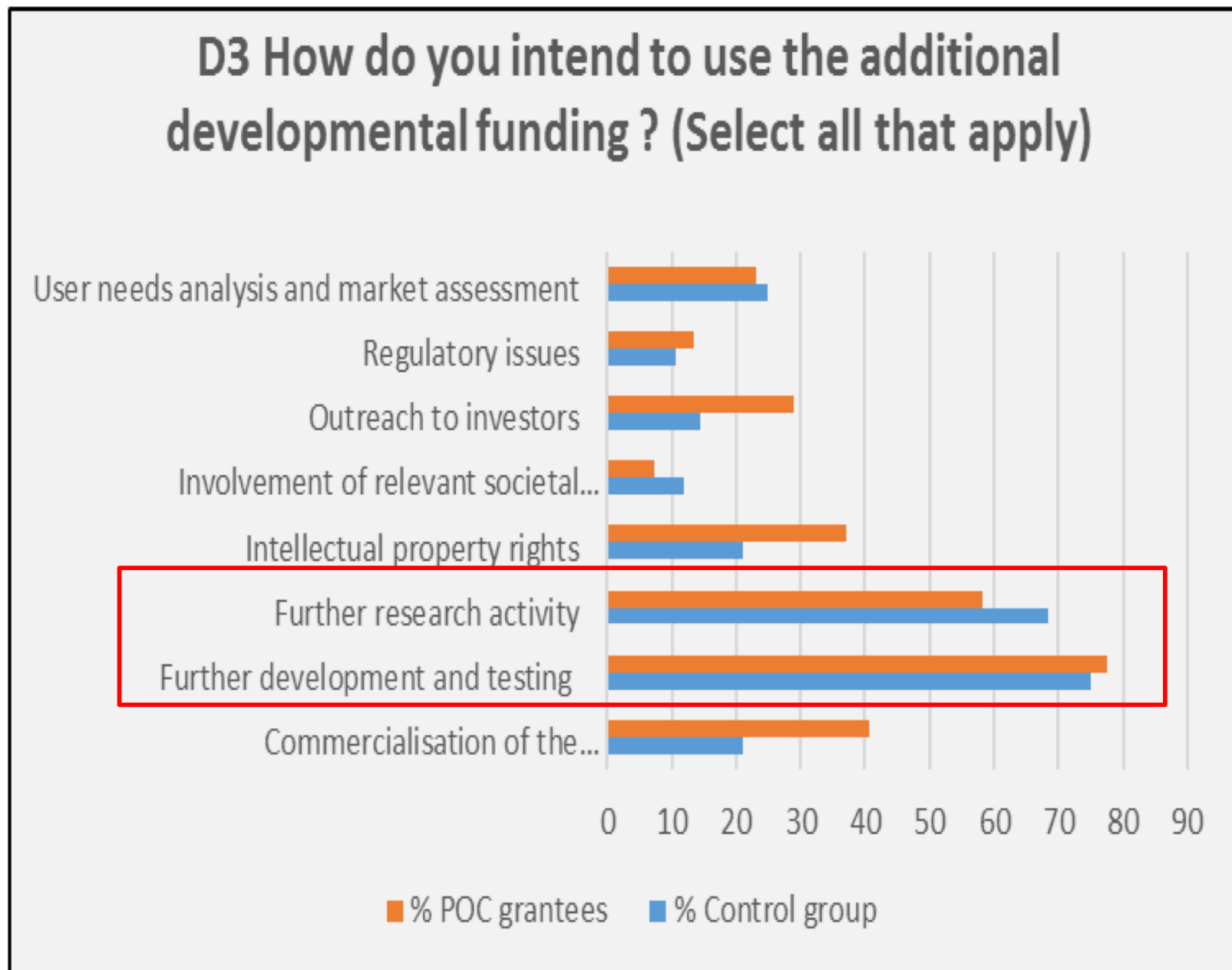
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After 10 years: PoC remains closer to idea generation than to innovation

An Empirical Assessment of the ERC PoC

Independent Report 2017



OBJECTIVES

H2020

Frontier research often generates **unexpected or new opportunities for commercial or societal applications.**

PoC aim to maximise the value of ERC-funded research by funding further work to **verify the innovation potential** of ideas arising from ERC funded projects.

HE

Frontier research often generates **radically new ideas which drive innovation and business inventiveness and tackle societal challenges.**

PoC aim at **facilitating exploration** of the commercial and social innovation potential of ERC funded research.

Focus

H2020

HE

PoC proposal includes:

a clear description of **how the proof of concept activities will lead to a commercial or social innovation**

PoC proposal includes:

a clear description of **how the idea will eventually lead to an innovation,**

Expected impact

H2020

PoC proposal includes:

Outline the **economic and/or societal impact expected from the project**

HE

PoC proposal includes:

A description of **how the project will make progress on the path from ground-breaking research towards innovation***

*Experience shows that the path from research to innovation may take different forms: e.g. patenting, creation of spin-outs, licensing agreements, research contracts, research collaborations, consultancy agreements, informal advice, public engagement, policy reports/contributions to policy, and more.

From 3 evaluation criteria to “excellence only”

3 evaluation criteria (PoC in H2020)

**1. Excellence in
Innovation potential**

2. Impact

**3. Quality and
efficiency of the
implementation
(Quality of the proof
of concept plan)**

Scientific Excellence only (StG, CoG, AdG, SyG)

Research Project

Ground-breaking nature,
ambition and feasibility

- **Ground-breaking
nature and potential
impact of the research
project**
- **Scientific Approach**

Principal Investigator(s)

- **Intellectual capacity
and creativity**

Excellence only (PoC in HE)

Project

Breakthrough innovation
potential, approach and
methodology

- **Breakthrough
innovation potential**
- **Approach and
methodology**

Principal Investigator

- **Capacity and
commitment**

PoC evaluation criteria H2020 vs HE

1. Excellence in Innovation potential

- Does the proposed proof of concept activity greatly help move the output of research towards the initial steps of a process leading to a commercial or social innovation?
- The proposal should include plans for an analysis of whether the project's expected outcomes are innovative or distinctive compared to existing solutions

1. Project Breakthrough innovation potential, approach and methodology

1.a Breakthrough innovation potential

- Does the proposed idea have the potential to drive innovation and business inventiveness and/or tackle societal challenges?
- Are the proposed expected outcomes innovative or distinctive compared to existing solutions?
- Is the proposed idea high risk-high gain (i.e. if successful, the outcome will result in breakthrough innovation, but there is a risk that some aspects might not work or some features of the problem require development of new approaches)?

2. Impact

2.1 Is the project to be taken to proof of concept **expected to generate any effect or benefit to the economy, society, culture, public policy or services and are these appropriately identified in the proposal?**

2.2 Does the proposal provide a **suitable outline of how the commercialisation or the generation of the above listed benefits** will be achieved?

The proposal should include:

- plans to assess and validate the effectiveness of the project's outcomes;
- plans to clarify the IPR position and strategy or knowledge transfer strategy;
- plans for setting up contacts with industry partners, societal or cultural organisations, policymakers or any other potential 'end users' of the projects' results.

1.b Approach and methodology

- Are the outlined approach and methodology feasible to explore the innovation potential of ERC-funded research?
- **Are the proposed activities and planning appropriate and effective** to explore the pathway from ground-breaking research towards innovation? Activities may include:
 - testing, experimenting, demonstrating and validating the idea;
 - **conducting research required to carry out the above activities and to address the weaknesses uncovered by them;**
 - clarifying IPR protection or knowledge transfer strategy;
 - involving industry partners, societal or cultural organisations, policymakers or any other potential stakeholder supporting the translation of research results into innovation;
 - assessing potential "end users" of the expected innovation.
- Are the proposed **timescales and resources adequate and properly justified?** Will the activities be conducted by **persons well qualified for the purpose?**

3. Quality and efficiency of the implementation (Quality of the proof of concept plan)

Does the proposal provide **a reasonable and acceptable plan of activities** against clearly identified objectives and towards establishing the feasibility of the project?

This should include:

- a sound project-management plan, including appropriate risk and contingency planning;
- demonstration that the activities will be conducted **by persons well qualified for the purpose**;
- demonstration that the **resources described in the proposal are appropriate** for the implementation of the project.

2. Principal Investigator - Capacity and commitment

Does the PI demonstrate the ability to conduct the management of the project, the consolidation of information and data needed to take strategic decisions and implement the proposed plan?

PoC revision and novelties

New in Horizon Europe PoC

- Objective: facilitating the exploration of the commercial and social innovation potential of ERC-funded research.
 - **Less of a focus on achieving economic or social impact as a direct result of the grant;**
- Scope enlarged
 - **to include further research activities needed to explore the innovation potential of the idea proposed;**
- Evaluation based on the sole criterion of excellence, comprising:
 - **Breakthrough innovation potential,**
 - **Approach and methodology,**
 - **Principal Investigator: capacity and commitment;**
- Data Management Plan now required (within 6 months from project start).

PoC revision and novelties

What does not change

- Grant amount;
- Lump sum funding method;
- Length of the proposal;
- Evaluation procedure.



2021 PoC call “reinstated” by the 2022 Work Programme, same budget (EUR 25 M), single deadline.

ERC WP 2022 call calendar

Complementary funding

	Proof of Concept Grant	Proof of Concept Grant	Public Engagement with Research Award
Call identifier	ERC-2022-PoC1	ERC-2022-PoC2	ERC-2022-PER
Type of action	ERC frontier research grant	ERC frontier research grant	Recognition prize
Opening of the call or contest	15/07/2021	16/11/2021	5/10/ 2021
Cut-off dates or deadline for applications	14/10/2021	15/02/2022 19/05/2022 29/09/2022	11/01/ 2022
Budget EUR (estimated number of grants or prizes)	25 000 000 (167)	25 000 000 (167)	30 000 (3)
Planned dates to inform applicants (by cut-off date for call ERC-2022-PoC2)	21/01/2022	23/05/2022 29/08/2022 17/01/2023	Third quarter of 2022
Indicative date for signature of grant agreements or award of the prize	19/05/2022	21/09/2022 27/12/2022 15/05/2023	Third quarter of 2022



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Thank you!

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Frontier research

Direct impact:

- advances at the frontiers of knowledge
- new and often unexpected scientific and technological results
- new areas for research

In turns this generates:

- radically new ideas which drive innovation and business inventiveness and tackle societal challenges

Which activities are funded?

The activities to be funded shall draw substantially on scientifically excellent ERC-funded research.

The funding will cover:

- activities aimed at exploring the pathway from ground-breaking research towards innovation
- activities at the very early stage of moving research ideas towards the initial steps of a process leading to an innovation or socially valuable proposition
- this includes further research to translate research ideas to possible application and development and testing to validate the idea in the lab