

O caminho para o sucesso – Critérios de avaliação

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O caminho para o sucesso - Critérios de avaliação



1

Experiência pessoal como candidata

2

Como preparar um boa proposta científica

3

Especificidades do programa Pathfinder OPEN

Experiência pessoal

● Cristina Silva Pereira

PhD, Julho 2004

Group leader, Fevereiro 2008

Professora Associada, Janeiro 2017



UNIÃO EUROPEIA

Fundos Europeus
Estruturais e de Investimento



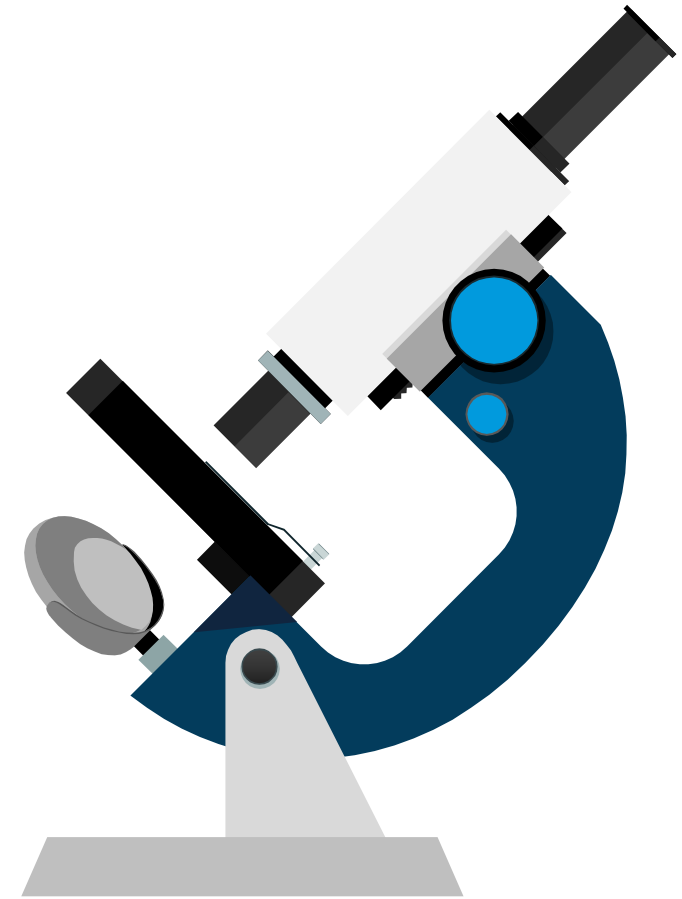
US Naval

Research Global

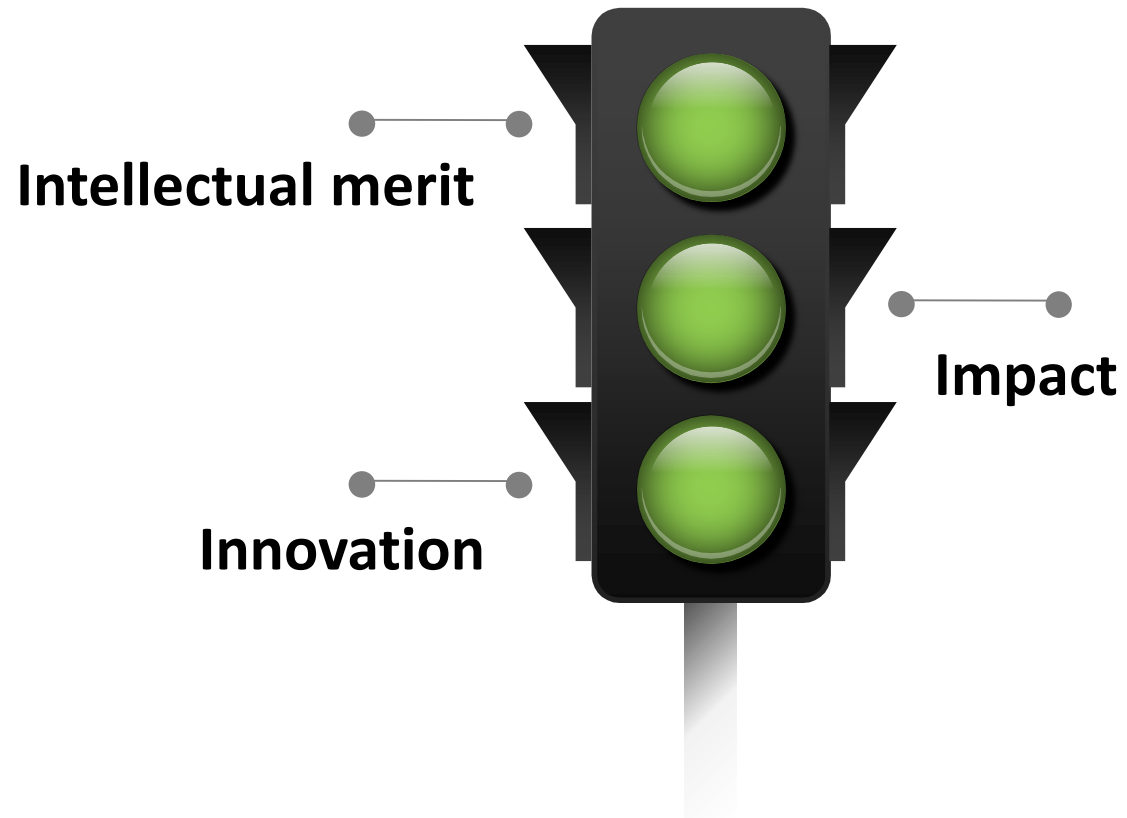


Fundação
para a Ciência
e a Tecnologia

Team's funding sources

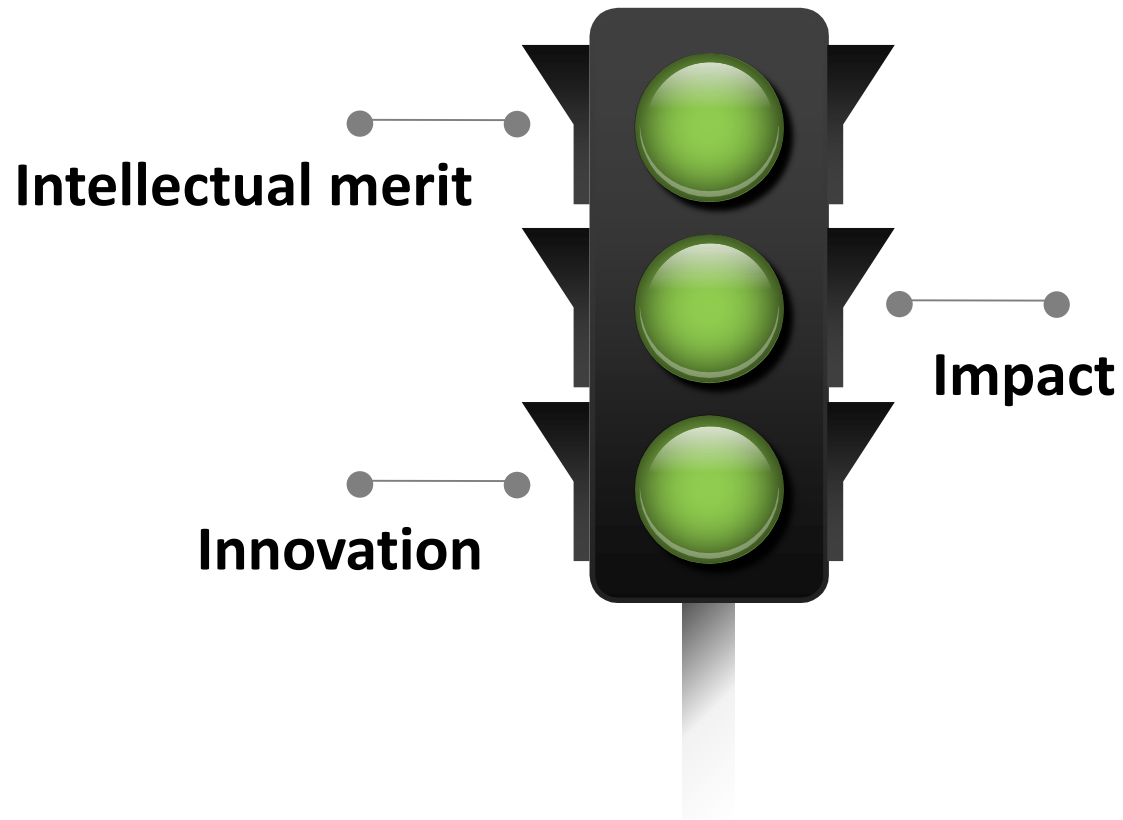


Trio of the value of an idea



TRIO of the value of an idea

European
Innovation
Council



Europe's most ambitious innovation initiative

- €1.2 billion Programme to identify, develop and scale up **breakthrough technologies** and **disruptive innovations** in Europe
- Unique in the world to combine **research on emerging technologies** with Accelerator for startups, SMEs and scaleups
- **Enhances the European innovation ecosystem**

Personal experience: ERC & EIC Pathfinder Open (formerly FET-Open)



- Making a bet on the chosen scientific path
- The probability of winning is proportional to the effort
- **Retain rejections as learning**

The research grant application process.

ERC is an individual grant
Excellence in basic research, not necessary to reach a proof of concept (PoC)



EIC Pathfinder Open is a collaborative project
Future and Emerging Technologies (applicative)
Expected to reach a PoC in the scope of the project

European
Innovation
Council



Bottom-up funding schemes
Ambitious & high-risk projects
Pioneering, groundbreaking science
Long term vision and high gain
Expected novelty

First European Research Council (ERC) experience

2011

Proposal Submission Form

European Research Council   **EUROPEAN COMMISSION**
7th Framework Programme on
Research, Technological
Development and Demonstration

Proposal Number: 000000 Proposal Acronym: AQUILA

GENERAL INFORMATION ON THE PROPOSAL

Type of project: Support for Frontier Research - ERC Starting Grant

Call identifier: ERC-2011-StG_20101109

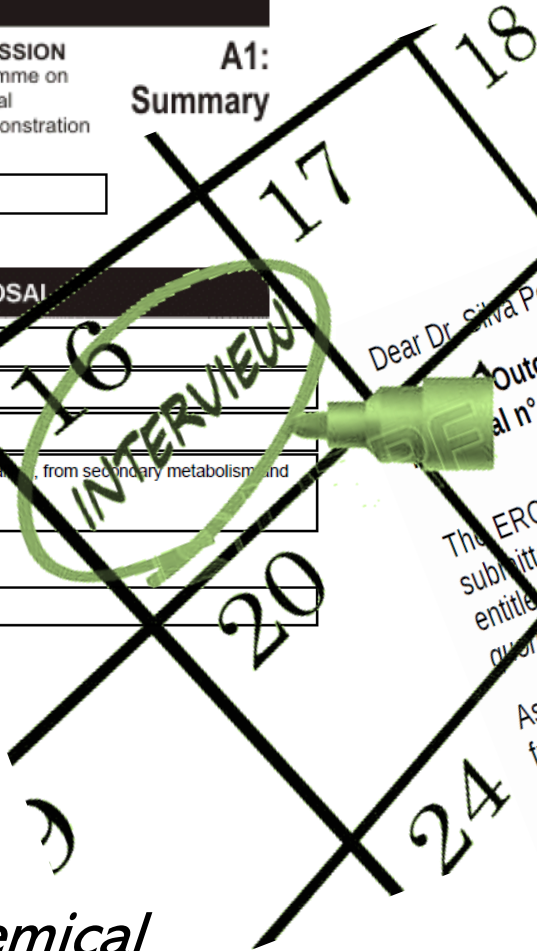
Topic code: ERC Starting Grant

Proposal Title (max. 180 char. - Non Confidential Information): Under the eagle-eye: fungal metabolites in signalling, from secondary metabolism and development to quorum-sensing

Duration in months: 60

Primary ERC Review Panel (linked to call deadline): LS9

A1:
Summary



Dear Dr. Silvia Pereira,

Outcome of the evaluation of proposals submitted under the Call for Proposals ERC-2011-StG -
Proposal n° 281733 AQUILA

The ERC review panels, composed of experts, have carried out their review of the proposals submitted to the ERC-2011-StG_2010-109 Call for Proposals under the eagle-eye (quorum-sensing).

As a result of the final Panel meeting, we regret to inform you that your proposal is not retained for funding on the basis that no budget is available for it.

REJECTED

REJECTED
REJECTED



Vision of unravelling chemical communication in multicellular organisms

First experiences at the European Innovation Council (FET-OPEN)

Attempt 1 – Sep 2014



Attempt 2 – March 2015



Flow Induced Phase Transitions

A New Low Energy Paradigm For Polymer Processing

- Lack of deliverables/milestones to monitor progress throughout the duration of the project
- Risk and proposals for risk mitigation measures that are too general
- Added value of interdisciplinarity not convincingly addressed
- Feasibility questioned

New experiences at FET-OPEN & ERC

New idea – Sep 2014



Attempt 3 – Sep 2015



Major improvements in feasibility
(scalability demonstration eliminated;
lower TRL)

Vision of developing novel and efficient antifungal strategies through mimesis of the defensive polyester barrier in plants

European Commission - Research - Participants
Proposal Submission Forms
European Research Council Executive Agency

Proposal ID 647928 Acronym MIMESIS

1 - General information

Topic ERC-CoG-2014 Type of action ERC-CoG

Call identifier ERC-2014-CoG Acronym* MIMESIS

Proposal title* Development of biomaterials through mimesis of the defensive polyester barrier in plants to fight wound infections

Note that for technical reasons the following characters are not accepted in the Proposal Title and will be removed: < > " &

Duration in months* 60

Primary ERC Review Panel LC9 Applied Life Sciences and Non-Medical Biotechnology

Feb 2015



Jan 2024

Learning-path



- Acquire greater competence in the preparation of proposals
- Project management training
- Peer-review & peer-pressure

[Integrate evaluation committees]



- Excellence/Impact/Implementation are equally important
- Details matter
- Feedback from reviewers is important
- Contradictory statements weaken the proposal

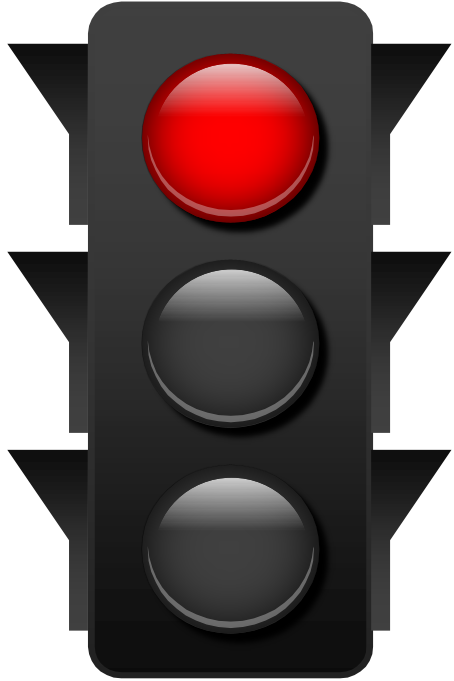
Learning-path



- Excellence/Impact/Implementation are equally important
- Details matter
- Feedback from reviewers is important
- Contradictory statements weaken the proposal

- Interdisciplinary promotes creativity
- **Long-term vision!**
- Don't do it alone: establish collaborations
- Write with the collaborators; once approved you will work with them
- Know your reviewers/audience/funding body
- **Be nice to the reviewers:** clear message and consistency in writing
- **The likelihood of funding is correlated directly with preparation time**

Fantasy

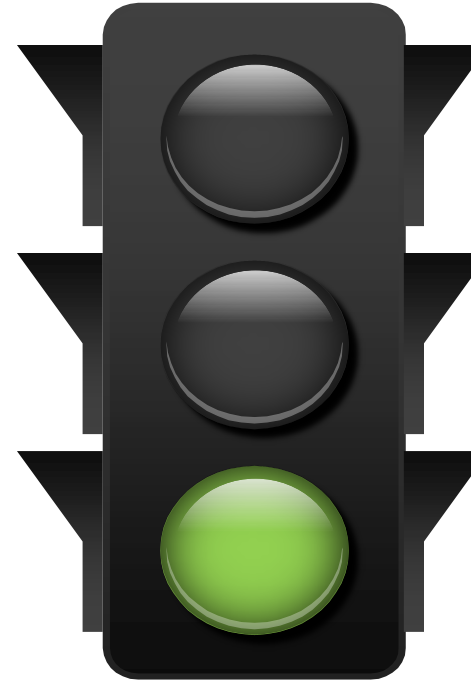


Technical/scientific merits alone determine winners
Write for the top experts in your field
Don't ask colleagues to review
Ignore the guidelines - reviewers don't care

What Peers (evaluators) Want

- Innovation & significance
- Responsiveness to program
- Care in writing proposal
- Capability to accomplish objectives

Reality



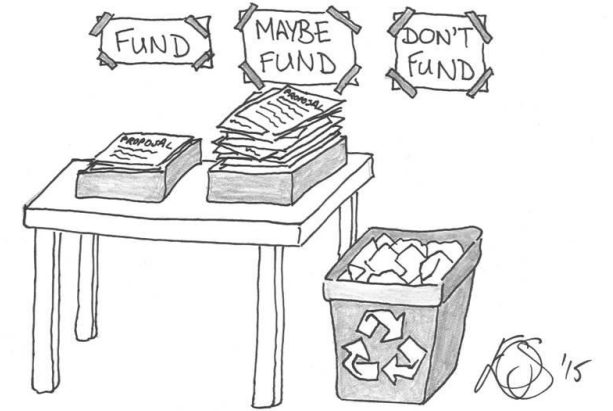
Reviewers look for the “big idea”
Reviewers also look for reasons to deny proposals
Reviewers are not always experts
Managers influence the process

What Managers Want

- Proposals that fulfill programmatic priorities
- No duplication of work
- Investigators who are good to work with
- Always deliver on promises

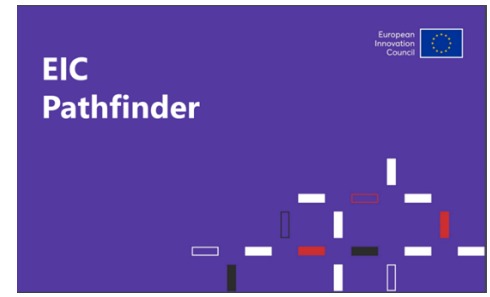
Pathfinder meaning

- a person who finds or makes a path, way, route, etc., through a previously unexplored or untraveled wilderness
- a person finds a **new way of doing something**



Review panel categories.

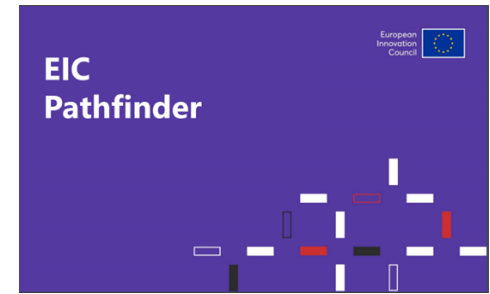
Agile funding from idea to investment => Pathfinder for advanced research on emerging technologies



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

open to support projects in any field of science, technology or application without predefined thematic priorities.

What a EIC Pathfinder proposal must have



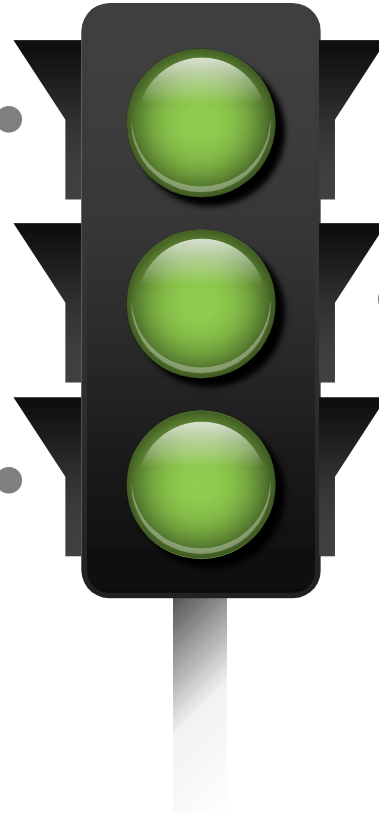
TRIO

Intellectual merit

Provide the foundations of the envisioned technology

Innovation

Support early stage development of the envisaged technology through implementation high risk/high gain science-towards activities



Impact

Aim to realize an **ambitious vision for radically new technology** with potential to create new markets and/or to address global challenges

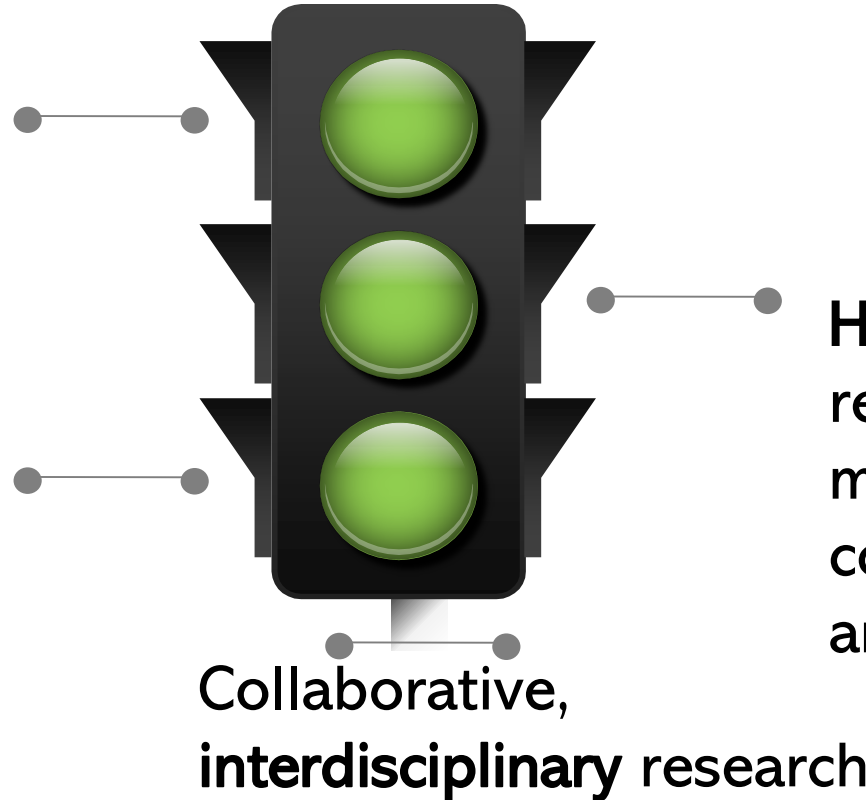
What are the essential characteristics of the EIC Pathfinder OPEN



Gatekeepers
EIC Pathfinder Open

Convincing, long term vision of a radically new technology, societally impactful

Concrete, novel and ambitious science towards technology breakthrough



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

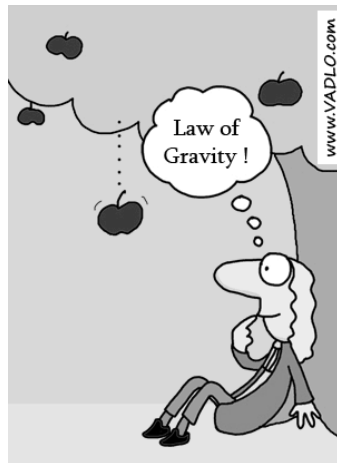
Collaborative, interdisciplinary research

high risky: try new things, solve new questions and deal with the unknowns of the problem.

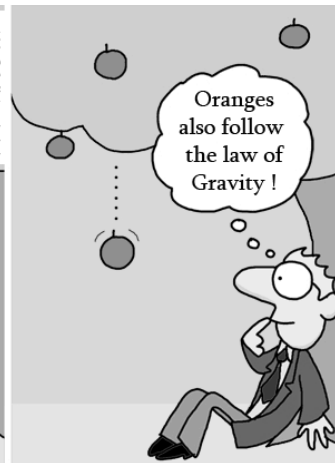
REJECTED

the approach is incremental known

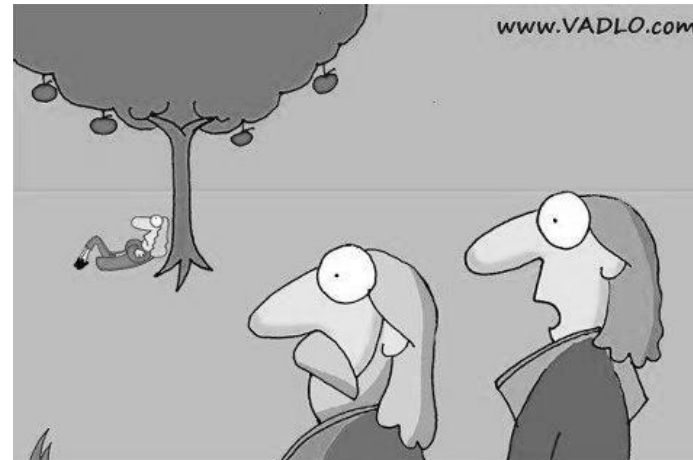
An excellent idea is **crucial** for funding, but insufficient



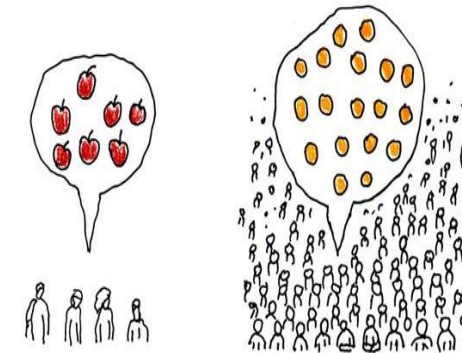
High Impact Paper



Low Impact Paper



"Reviewers have asked him to reproduce the experiment."

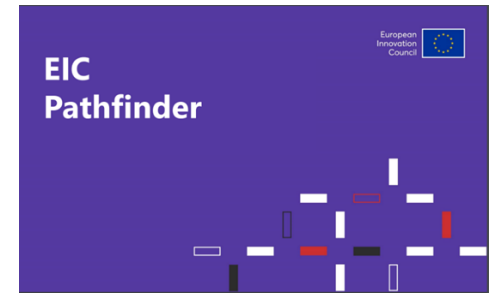


Novelty, uniqueness
& impact

Credibility
& feasibility

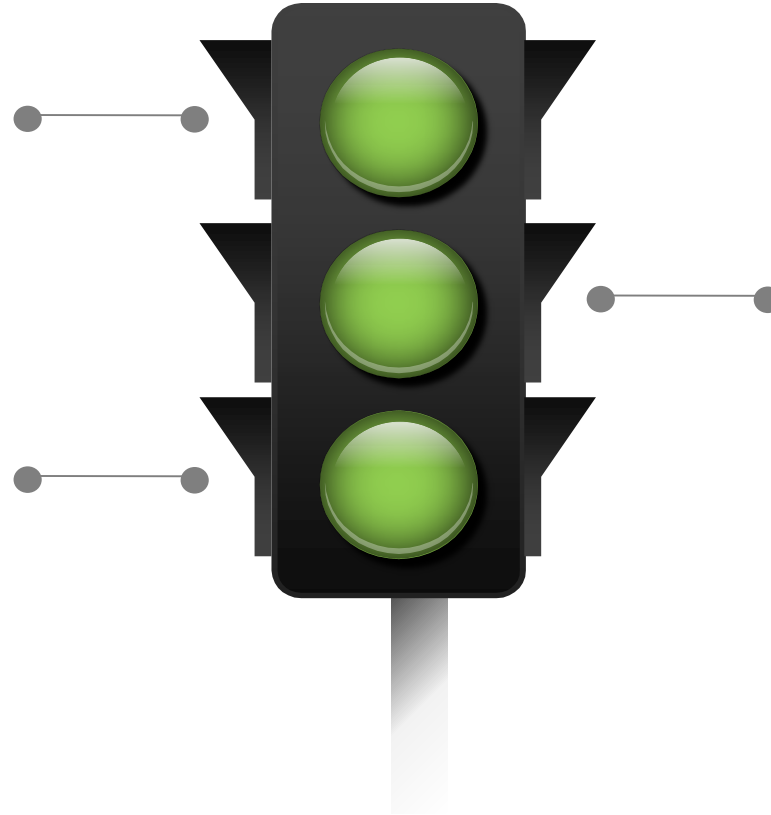
Clarity
vs Ambiguity

What are the expected outcomes of an EIC Pathfinder Open project



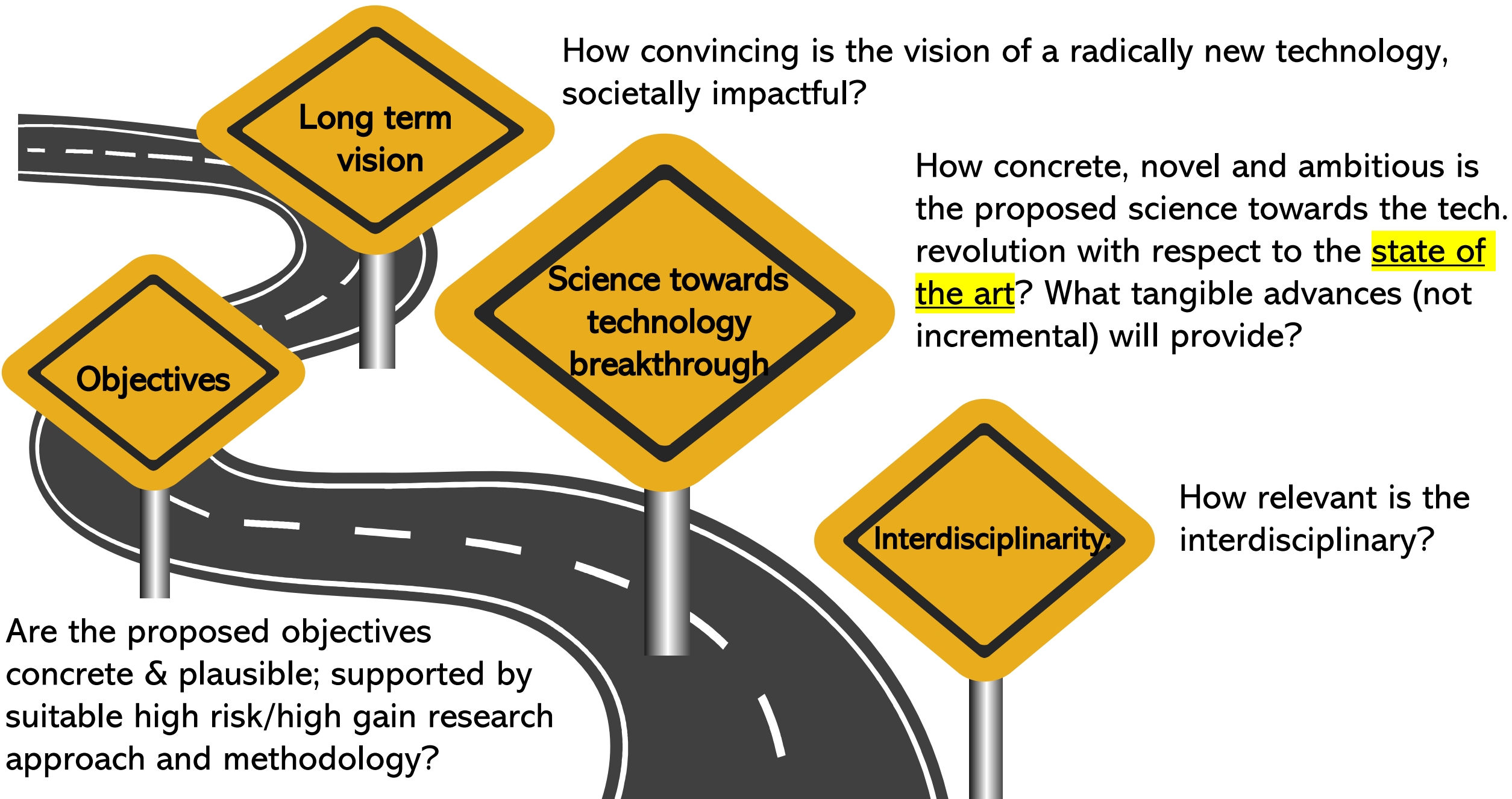
proof of principle that the ideas are feasible

clear strategy/measures to allow future uptake to take place (e.g. IP protection)



Involve/empower key actors having potential to be the future leaders in their fields (e.g. early career researchers and/or high tech SMEs)
(employer female WP leaders)

The “Excellence” criterion



How convincing is the vision of a radically new technology, societally impactful?

Long term vision

How concrete, novel and ambitious is the proposed science towards the tech. revolution with respect to the state of the art? What tangible advances (not incremental) will provide?

Science towards technology breakthrough

Objectives

Are the proposed objectives concrete & plausible; supported by suitable high risk/high gain research approach and methodology?

Interdisciplinarity

How relevant is the interdisciplinary?

The “Impact” criterion



Innovation
Potential

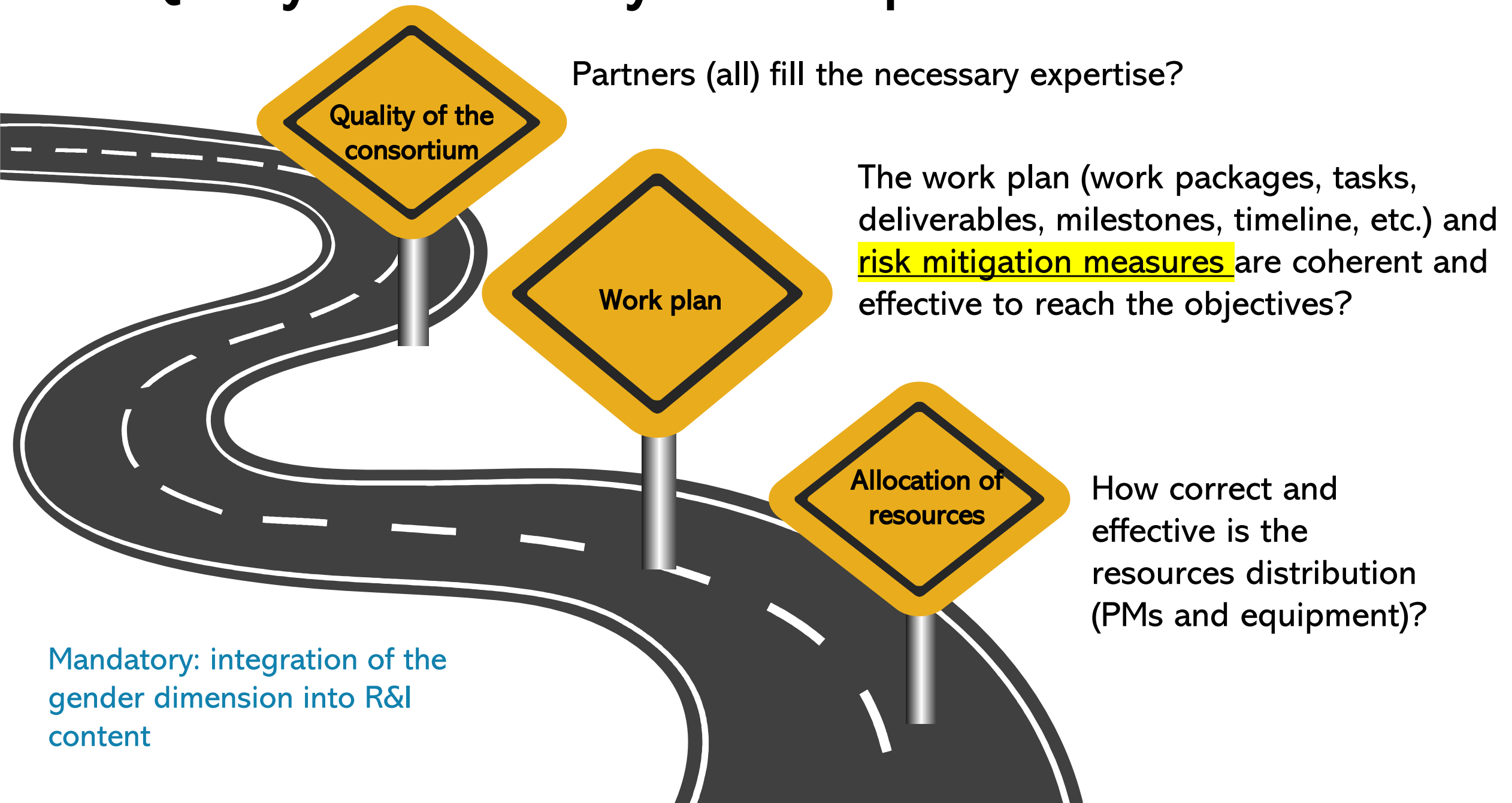
The proposed measures for (i) protection and exploitation of results and (ii) empowering the proper key actors to lead innovation are sufficient to secure future translation into societal/economic impactful innovations?
Long-term impact vs innovation potential!

Communication &
Dissemination

The proposed measures/plans for public/stakeholder engagement and for raising awareness about the project outcomes (includes **Open Science**) are convincing and broad with respect to their potential impacts? Are these quantifiable, concrete and original?

Open access to publications; Research Data Management in line with the FAIR principles; open access to research data ‘as open as possible as closed as necessary’.

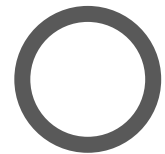
The “Quality and efficiency of the implementation” criterion



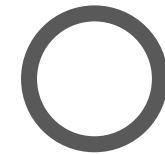
Additional questions Checklist – 8 Items



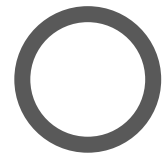
Scope of the application



Additional funding (if essential).

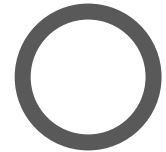


Use of human embryonic stem cells (hESCs)



Use of human embryos (hE)

Activities not eligible for funding.



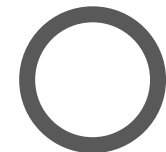
Exclusive focus on civil applications.



Do no significant harm principle.

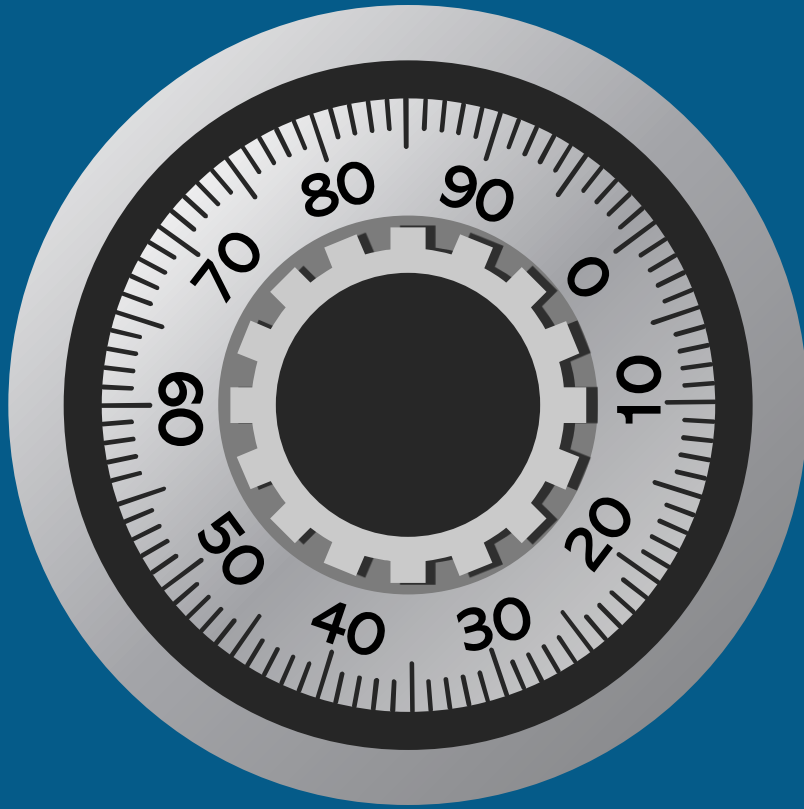


Artificial Intelligence (assess the technical robustness).



The DNSH principle needs to be taken into consideration in the scientific methodology under the Excellence criterion and impact of the project

Unlocking funding



- Evaluated and scored individually by 4 EIC expert evaluators (score for each criterion is the median of the evaluators' scores) – **interdisciplinarity may lead to divergent scoring**
- The evaluation committee (different experts) decides on the final score harmonizing the scores of the first phase and the outcome of its analysis/discussions.
- Clarification of divergent opinions may involve consulting evaluators of the first phase – **unbalanced quality in the distinct disciplines weakens the proposal**





So
What?

