

**NATIONAL
CHALLENGE
FUND**

*From Ingenuity
to Research
and Solutions*

National Challenge Fund Briefing Deck



Rialtas na hÉireann
Government of Ireland



Maoinithe ag an
Aontas Eorpach
Funded by the
European Union
NextGenerationEU

The National Challenge Fund

NATIONAL CHALLENGE FUND

*From Ingenuity to
Research and Solutions*



Rialtas na hÉireann
Government of Ireland



The National Challenge Fund

- The **National Challenge Fund** is an initiative under the Government's **National Recovery and Resilience Plan (NRRP)** funded to **€65 million** from the EU's Recovery and Resilience Facility.
- Provides researchers with an opportunity to work with government, enterprise, CSOs and other stakeholders to address key societal (and interrelated economic) challenges.
- Challenges aligned with opportunities of **Green Transition** and **Digital Transformation**.
- **Eight challenges** (3 Digital, 5 Green) will be launched **over the next 12 months**.
 - For full details see: <https://www.sfi.ie/challenges/national-challenge-fund/>



Overarching Objectives

- **Accelerate** development and demonstrate positive societal **impact** for Ireland, inform national & European policy.
- **Enable collaboration** between government, enterprise, academic community and societal stakeholders to inform challenges.
- **Support mobilisation** of transdisciplinary teams to develop solutions.



Challenges

Future Digital

Challenge of bringing disruptive digital technologies to sectors where there is a need to **advance digitalisation** or where **digitalisation** could bring **transformational opportunity**.

Areas: Science, Manufacturing, Construction & Housing, Agriculture, Transport, Energy.

Digital for Resilience

Challenge to gain **deeper insights** and better understanding of the **origins and potential impacts of future environmental, social or economic scenarios, in order to better prepare for future shock events**.

Areas: Anticipate, monitor and manage shock societal, economic and environmental events.

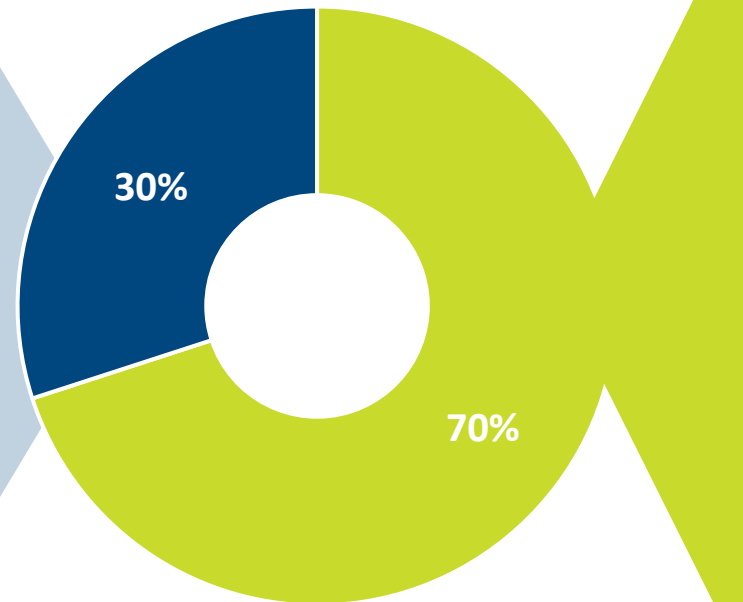
OurTech

Challenge to **strengthen the connections between people, their communities and with government**.

Areas: Knowledge, Trust, Health Systems, Policy, Public Services, Civic Engagement.

National Challenge Fund

€65M



■ Green Transition ■ Digital Transformation

2050

Challenge of developing **transformative, forward-looking solutions** that will contribute to Ireland becoming **climate neutral and resilient by 2050**.

Areas: Zero-/low carbon fuels, Hydrogen, GHG Removal, Energy Storage.

A Healthy Environment for All

Challenge of **restoring and maintaining a resilient environment** that ensure **clean and healthy air, water and soil for humans, animals and plants**.

Areas: Adaptation, Measurement & modelling, Restoration, Natural Capital.

Energy Innovation

Challenge of developing solutions that will **accelerate Ireland's transition to a clean and secure energy system**.

Areas: Energy storage, materials, efficiency, management.

Sustainable Communities

Challenge of **creating sustainable and inclusive ways for all people to live, be productive and creative, and to thrive in balance with nature, the environment and our planet**.

Areas: Built Environment, Transport and Mobility, Infrastructure.

Future Food

Challenge of **creating sustainable, productive and resilient food systems**.

Areas: Sustainable and Regenerative Agri., Alternative Proteins, Waste/Loss, Bioeconomy, Soil.

What is Challenge Funding?

- **Challenge funding** is a **solution-focused approach** to research funding that uses prizes, defined timelines, teamwork and competition to direct research activities at addressing societal challenges.
- Focus on societal challenges provides researchers with a **significant opportunity to create impact** for Ireland.
- **Transdisciplinary research teams** will be supported, comprising scientists, engineers and researchers from different domains working with non-technical experts.
- Teams will be provided with **grant funding, training and other supports** to accelerate their research toward tangible impact.

Remit of the National Challenge Fund

- Proposed **solutions must rely on or are directly informed by a STEM innovation** and **must involve STEM research activity**.
- **Green Transition challenge** projects must represent research and innovation that focuses on the low carbon economy, resilience and adaptation to climate change.
- **Digital Transformation challenge** projects must represent digital-related research and innovation.
- **Excluded R&I Areas:** Related to the further use of fossil fuels, including downstream use (i.e., related to coal, lignite, oil/petroleum, natural gas) as well as research related to incinerators or landfills
- **Technological Neutrality** – Challenge themes developed to be technologically neutral, i.e. without preference for any given technological solution.

Do No Significant Harm (DNSH)

- All activities supported under the National Challenge Fund must comply with the 'Do No Significant Harm' (DNSH) principle. Researchers must consider possible negative impacts of their research.
- DNSH safeguards that an economic activity is environmentally sustainable in relation to the six environmental objectives:
 - climate change mitigation
 - climate change adaptation
 - the sustainable use and protection of water and marine resources
 - the transition to a circular economy
 - pollution prevention and control
 - the protection and restoration of biodiversity and ecosystems.
- Applicants to calls required to complete assessment outlining how the proposed outputs are compliant with the principle of DNSH.

Challenge Programme Structure and Supports

NATIONAL CHALLENGE FUND

*From Ingenuity to
Research and Solutions*

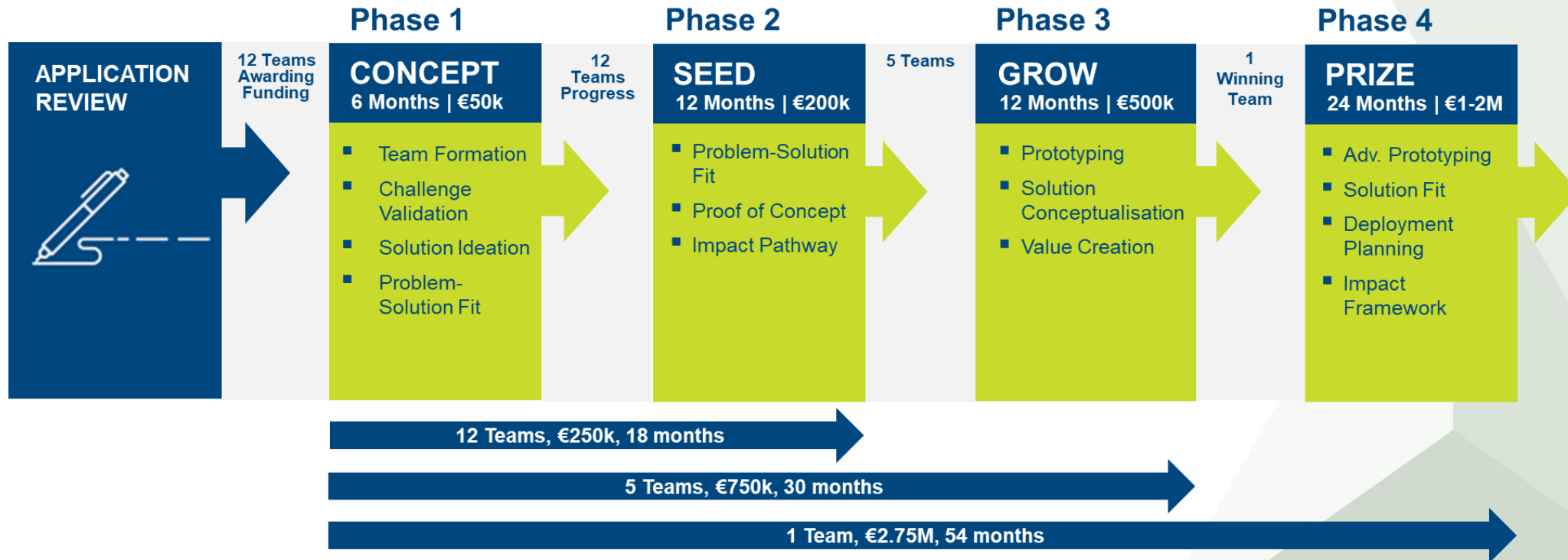


Rialtas na hÉireann
Government of Ireland



Phases

Each challenge will comprise four phases: **Concept, Seed, Grow and Prize Award**



* Team numbers and award amounts are indicative and may vary with challenge.

Training and Skills Development

NATIONAL CHALLENGE FUND

*From Ingenuity to
Research and Solutions*



Rialtas na hÉireann
Government of Ireland



Training and Skills Development

- Key differentiator of SFI's approach to challenge funding is its focus on **skills development for researchers**.
- Under National Challenge Fund, significant focus will be placed on development and application of skills in three core areas: design thinking, theory of change and communications.
- Blend of **cohort-based training** and **one-to-one mentoring** will be provided to teams through all phases of a challenge.
- Training will support **direct application of techniques** to projects.
- Training will be delivered by international experts with expertise both in training and application.

Who Can Apply?

NATIONAL CHALLENGE FUND

*From Ingenuity to
Research and Solutions*



Rialtas na hÉireann
Government of Ireland



Teams – Core Team

- Applications should identify a team of **3 core members** comprising two academic researchers, who will act as lead and co-lead, and a non-academic *Societal Impact Champion*.
 - Applications must include a STEM researcher as lead or co-lead.
 - If a Societal Impact Champion cannot be identified at the time of application, they must be in place not later than Month 3 of the Concept Phase (if the team is successful at application stage).
- Team Lead/Co-Lead must be:
 - Member of **academic staff** (permanent or contract covering award) or **contract researcher** (e.g. postdoc, fellow) with a contract that covers duration of award (or be subject to receipt of award) at an **eligible RPO**.
 - Hold a **PhD** (or equiv.) - Note: Research-active staff without a PhD may be considered eligible to participate.



Teams – Challenge Team

- Applications may also provide information (as part of team profile section) on other challenge team members who will participate in research activities if the application is successful.
- Challenge team members:
 - Can come from different disciplines (non-STEM and STEM);
 - Be at different career stages (e.g. postgraduate, postdoctoral or established);
 - Not required to hold a PhD.
 - Can come from outside academia.
- As a funded project develops, it is possible to add team members dependent on the expertise required.

How To Apply?

NATIONAL CHALLENGE FUND

*From Ingenuity to
Research and Solutions*



Rialtas na hÉireann
Government of Ireland



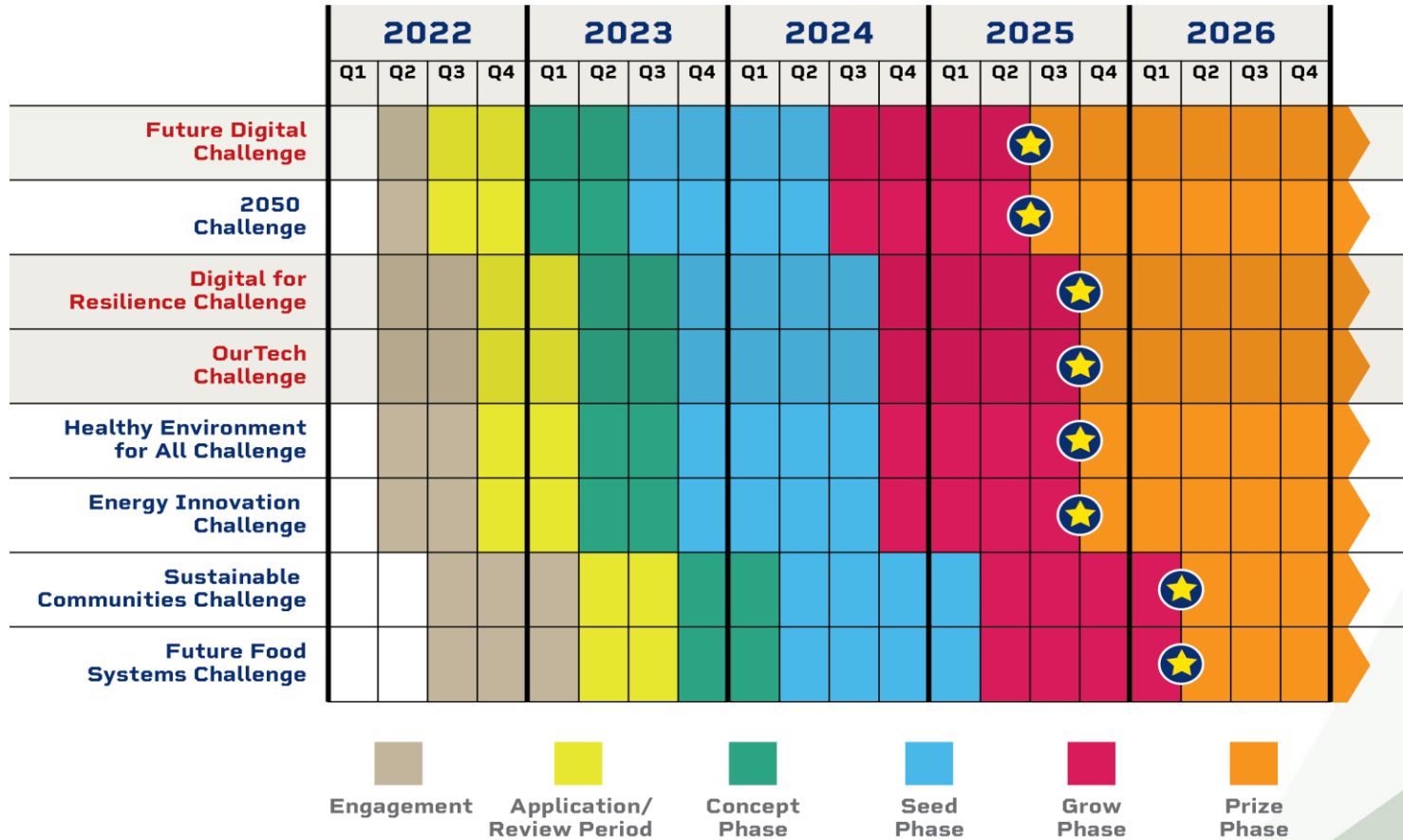
Application Process

- Application involves:
 - Input of **information into SESAME** (SFI Grants Management System).
 - Completion and upload of a **short (6-page) application form** (Form is available from SFI website).
 - Upload of **CVs** to SESAME.
 - Upload of **Letters of Support** to SESAME.
- Application form should provide information on four key areas:
 - **Team** – Description of the team (not listing simply listing people).
 - **Challenge/Problem** – Description of challenge and articulation of understanding.
 - **Solution** – Description of the solutions, novel or innovative aspects, broader context.
 - **Societal Impact** – Impact solution can achieve in Ireland and beyond.

Budget

- Budget information should be input into SESAME:
 - Applications should include budget for Concept & Seed Phases
 - Successful applicants can only access requested Concept Phase amount during the Concept Phase. Seed Phase request released on progression to Seed Phase.
- Budget requests should comply with SFI Grant Budget Policy
- **Teaching replacement costs** (for Technological Universities/Institutes of Technology) is permitted under the National Challenge Fund
 - Up to a maximum of 50% of teaching load for the duration of each phase
- Societal Impact Champion - Salary or fees not permitted, expenses may be eligible
- Overhead on Awards – 30%

Timelines



Contact

For further information please contact:

challenges@sfi.ie

<https://www.sfi.ie/challenges/national-challenge-fund/>

