

2050 Challenge

Challenge Handbook

The 2050 Challenge

The 2050 Challenge will support research teams to develop transformative, forward-looking solutions that will enable Ireland to become climate neutral and resilient by 2050.

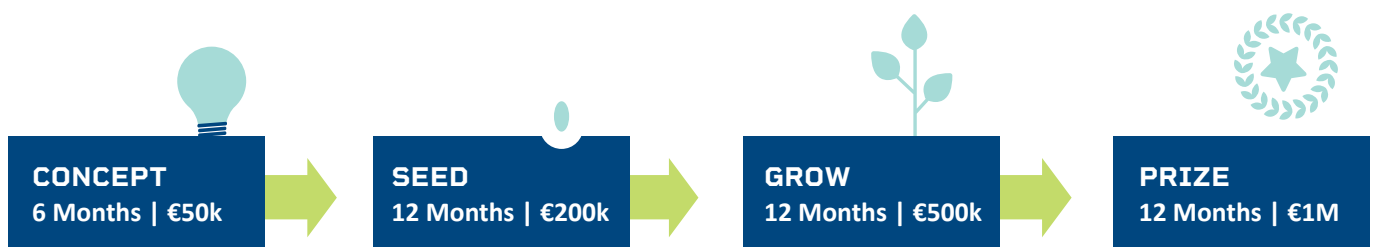
Why Apply?

The 2050 Challenge gives academic research teams a unique opportunity to contribute to Ireland's transition to an environmentally sustainable and climate-neutral economy.

Following successful review of applications, teams will receive funding of up to €250k and training to accelerate development of their idea. A number of teams will then be selected as finalists and receive up to €500k to further develop their idea before an overall winner is selected for the €1M Prize Award.

Who Can Apply?

Postdoctoral, early career or established researchers may lead teams in the 2050 Challenge. Teams will consist of a minimum of two academic researchers with complementary skillsets. At the application or during the first phase of the award, teams must also include a third member who will bring specific knowledge or experience of the societal challenge the team will address.



How To Apply?

Complete a short 6-page form that asks you to describe your team, the specific challenge or problem you will address, the solution you propose and how it will create impact. Register and upload your application to SFI's grant management system before the deadline.

Teams should note that they will also be required to upload their CVs and other supporting documentation described in the call document.

What Are We Looking For?

Ireland's National Climate Objective commits to a transition to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy by 2050. While many solutions already exist, there is an urgent need and opportunity for technological innovation to accelerate and navigate this transition to achieve this long-term ambition. The 2050 Challenge seeks transformative, forward-looking solutions to current and future challenges for Ireland in becoming climate neutral and resilient by 2050.

Examples of potential research areas that could deliver in transformative impact are zero-/low-carbon fuels, hydrogen, greenhouse gas removals, low-carbon construction materials, energy storage, amongst many others.

Find out more about the varied and diverse teams we have funded under other challenges on the SFI website: www.sfi.ie/challenges



Key Dates



August 8, 2022 –
Call opens for applications



October 21, 2022
(13:00, Dublin Local Time) – Application Deadline



November 2022 –
Successful teams notified

More About the 2050 Challenge

The 2050 Challenge seeks transformative, forward-looking solutions to current and future challenges for Ireland in becoming climate neutral and resilient by 2050.

Ireland's National Climate Objective commits to pursue and achieve no later than 2050, the transition to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy. While many solutions already exist, there is an urgent need and opportunity for technological innovation to accelerate and navigate this transition to achieve this long-term ambition.

As illustrative examples, the National Climate Action Plan and the Climate Change Advisory Council highlight the following areas where there is a need for technological innovation:

- ▲ **Zero-/low-carbon fuels** – scalable and sustainable alternative fuels (e.g., sustainable biofuels, synthetic fuels) for difficult-to-decarbonise areas such as freight transport, aviation and industry processes.
- ▲ **Hydrogen** – solutions associated with the clean generation, storage and safe usage of hydrogen to fully exploit Ireland's potential advantage to produce and supply this clean fuel.

- ▲ **Greenhouse gas removals** – nature-based and technology solutions to sustainably capture, store and recycle GHGs from the atmosphere for complete decarbonisation of our society and to limit global temperature rises.
- ▲ **Low-carbon construction materials** – solutions to reduce the embodied carbon in the materials used in our built environment and to develop novel and sustainable alternatives.
- ▲ **Energy storage** – solutions to increase penetration of renewables, to enable deployment of electric vehicles and electrify difficult-to-decarbonise sectors such as aviation.

Solutions may be proposed in any sector and must demonstrate the potential for transformative impact in achieving Ireland's transition to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy.



Challenge research is an approach to research funding that provides participants with an opportunity to accelerate progress toward delivering tangible impact from research. In addition to funding, researchers participating in the National Challenge Fund will be provided with significant training and mentoring to support them in this process.

Further Information

For all information on the 2050 Challenge, please visit the website: <https://www.sfi.ie/funding/funding-calls/2050-challenge/>. Applicants are advised that they should consult the call document for all details and eligibility criteria for the call in advance of preparing an application. For any further queries, please contact the SFI Challenge Team at challenges@sfi.ie