Developing specific funding schemes for HRHR

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Supporting Research and Innovation

Supporting Indigenous Irish Companies

Supporting Multinational Companies in Ireland

RDI Funding Spectrum

|---------|---------------------------|--------------------------|---------------------|------------------------------------|

SFI

EI

IDA
Disruptive Technologies Innovation Fund (DTIF)

€500 million Fund under spatial planning - Project Ireland 2040

Designed to de-risk collaboration for enterprises in large-scale RDI projects

Targets industrial research (TRL 3-7)

Minimum of 2-3 partners - at least 1 SME and 1 other enterprise partner in every consortium

Minimum funding sought from DTIF of at least €1m to €1.5m
What do we mean by a Challenge?

• An ambitious goal which aims to address a complex, often intractable, societal problem

• It should be visionary and inspirational, yet achievable

• Challenge-based funding aims to accelerate activity to drive impact
SFI Future Innovator Prize
bottom-up / top-down /thematic

• **High Risk**, Novel, potentially disruptive, technologies;
• **High Reward**, Significant Societal Impact;
• **Convergence** of disciplines and mindsets;
• **Interdisciplinary team formation**, expansion, training & support;
• **Focus on** validation of the challenge and validation of proposed approach in phases;
• **Flexibility** to pivot; idea and approach;
• **Tech & non-tech** aspects of solution;
• **Promote** stakeholder / beneficiary engagement;
• **Stage-Gate funding**;
SFI Future Innovator Prize

Team focus is key

- **Team Lead**: Academic researchers
- **Team Co-Lead**: Academic researchers
- **Societal Impact Champion**: Advocate, non-technical leadership, KOL, SME
SFI Future Innovator Prize
Challenge & Solution Validation

Validation
Does the solution address the problem?

Who do we serve?
What do they care about?

Stakeholder

Solution

Challenge/Problem

Innovation
How will we solve the problem?
Application

Preliminary challenge validation, a solution concept, and a description of the potential impact of addressing the challenge.

Concept

€20k, 3 months

Team formation, challenge validation, solution concept, impact pathway.

Seed

€200k, 9 months

Team development, stakeholder engagement, field-ready prototype, solution deployment prep.

Prize

€1M, 12 months

Solution deployment, impact assessment.

Skills Development

Active SFI Engagement

10 Teams

5 Teams

1 Team

10 Teams

5 Teams

1 Team
### SFI Future Innovator Prize

#### Application Review – Criteria, Guidance to Reviewers

<table>
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<tr>
<th>Quality, experience and ambition of the applicant team</th>
<th>Significance of the Challenge</th>
<th>Quality of the Proposed Solution</th>
<th>Impact Potential</th>
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<td><strong>Is this a highly motivated interdisciplinary team?</strong>&lt;br&gt;Does the team encompass the appropriate technical (both scientific and engineering) and non-technical skills to successfully address the challenge and lead development of a solution?&lt;br&gt;Does the team bring a unique perspective?&lt;br&gt;Does the team have the capacity to deliver?</td>
<td><strong>Does the challenge represent a bold and ambitious goal?</strong>&lt;br&gt;How is it visionary and inspirational?&lt;br&gt;<strong>Is it high-risk high-reward?</strong>&lt;br&gt;Does the challenge have potential to not only drive societal impact here in Ireland but also give Ireland a unique advantage in addressing challenges that have global implications?&lt;br&gt;<strong>Is there evidence of engagement with stakeholders, beneficiaries and end-users?</strong>&lt;br&gt;Is the solution / proposed approach novel and potentially disruptive?</td>
<td><strong>Is the solution / proposed approach novel and potentially disruptive?</strong>&lt;br&gt;Is there evidence that the solution is based on an interdisciplinary approach?&lt;br&gt;<strong>What are the risks?</strong>&lt;br&gt;Can the solution be delivered within the next 3-5 years?</td>
<td><strong>Is the transformative potential credible?</strong>&lt;br&gt;Are the deliverables ambitious yet achievable? <strong>Is the transformative potential realistic?</strong>&lt;br&gt;Is the planning appropriate? (Assume positive impact)</td>
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*Science Foundation Ireland*
Finalist Team

- **Team**: Dominic Zerulla (UCD), Dimitri Schulz (UCD), Peter Doyle (UCD)
- **Background**: To create new therapies, we need to develop in-depth understanding of biological mechanisms.
- **Challenge**: Enable greater understanding of biological mechanisms at the cellular level.
- **Solution**: The PEAR imaging chip technology is capable of label-free real-time imaging beyond the diffraction limit of light allowing the study of biological mechanisms at unprecedented spatial resolution.

Comparison of protein-based channels imaged using state-of-the-art high resolution microscopy and the PEAR Chip.
SFI Zero Emissions Challenge

11 Teams Competing for a €3M Prize (€2M + €1M Bonus)

- **Carbon-Impact**: Developing sustainable and scalable atmospheric CO2 capture technologies
- **LiCoRICE**: Bringing lithium cobalt batteries into the circular economy
- **SolarCool**: Improving Solar Panel Performance in Arid Climate Conditions
- **Farm Zero C**: Creating a carbon-neutral resilient dairy farm
- **HyBioSol**: Making the energy and waste management sector sustainable
- **MESSO**: Minimising the environmental impact of additive manufacturing
- **C-MINUS**: Enable low-energy carbon-capture and negative-carbon technologies
- **EcoMAG**: Creating Eco-Friendly and Cost-Effective Super Magnets for Electric Vehicles
- **EFACE**: Increasing the efficiency of renewable electricity using bioenergy
- **NAPSS2030**: Making sustainable transport available to everyone
- **SMILE team**: Reducing transport emissions through smart mobility
COVID-19
Rapid Response
Research & Innovation Funding
- Team
- Problem
- Solution
- Feasibility
- Budget

- Impact
- Team
- Achievability
- Budget
- LRLR; LRHR; HRLR; HRHR
- Fund as Emergency Response?

Application

Triage 2/wk

Resubmission

Peer Review

Fastrack 48hr

Connections

Team

Fund/DNF

HSE / HIHI / Expertise etc

HRB / HSE / NPHET subgroups etc

Problem Curation
Thank you!

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