

SFI Annual Plan 2021

SFI Annual Programme Plan 2021

1. Summary

With the recent approval of SFI's new strategy, *Shaping Our Future*, the organisation is now progressing to implementation. This proposed annual plan has been developed in keeping with the following objectives from our new strategy:

- Funding a balanced national portfolio between individual investigator-led and Research Centres, across all career levels, from frontiers research to applied and including top-down and bottom-up programmes.
- Continued focus on SFI Research Centres to drive excellent research and tangible benefits for the economy of Ireland.
- Ongoing support for Education and Public Engagement to ensure we have an informed public and to secure the pipeline of future talent.
- International collaboration with prestigious organisations overseas which raises Ireland's profile, is operationally efficient, and provides a large return on investment for the Irish taxpayer.
- Funding the research Infrastructure which underpins the implementation of many of the research grants funded by SFI.

The proposed annual plan is the result of considering these strategic objectives in the context of the existing portfolio of research funded by SFI and any funding gaps in the national STEM research ecosystem. For 2021, in line with our strategy the following areas have been identified for new or additional funding:

- Early career researchers,
- Technological Universities/Institutes of Technology,
- Additional frontiers research.

Through the allocation of additional budget from the Department of Further & Higher Education, Research, Innovation & Science (D/FHERIS), combined with the existing budget available for new programmes in 2021, the above priority areas are being addressed.

2. SFI Funding

The majority of SFI's investments are in research projects which have a longer than 12-month duration. Therefore, SFI makes many multi-year awards each year. Only a small proportion of a multi-annual award is paid out in year 1; the subsequent payments are released in the years thereafter. When the financial commitments that have been accrued in previous years are added together and subtracted from the SFI baseline budget, the difference equates to the amount of cash that is available each year for new awards.

SFI's capital allocation for 2021 is €208.3 million. This funding is broken down as follows: €167.9M allocation for grants awarded in previous years (81%) and €40.4M available for in-year expenditure on new awards (19%) in 2021.

3. 2021 Programmes

Investigator-led Research

A key action from SFI's strategy is to increase support for individual investigator-led research. Frontiers research enables ideas to spark and grow from the bottom, up. SFI has committed to grow all of its frontiers research schemes to ensure that SFI delivers a portfolio balanced across frontiers and applied research. This capital plan will support expansion of the SFI Frontiers for the Future Programme and the launch of the new SFI-IRC Pathway Programme in partnership with the IRC to support talented postdoctoral researchers across all disciplines to develop their track record and establish themselves as independent investigators.

Another key objective of the SFI Strategy is to recruit world-leading researchers and rising stars to Ireland. The capital budget allows for the continued support of this objective through the SFI Research Professorship programme which runs on a rolling call basis.

The expansion of the SFI Frontiers for the Future programme will incorporate a new strand that is specifically targeted at developing research talent and capacity within the Technological Universities (TUs) and Institutes of Technology (IoTs).

SFI Frontiers for the Future

The SFI Frontiers for the Future programme is a key component of the SFI Strategy, in particular the Top Talent and Excellent Research themes. The programme will enable SFI to deliver on the specific target to support 140 Individual led research grants per year.

Elements to the programme in 2021:

- **Completion of the SFI Frontiers for the Future 2020 call - Projects and Awards**
- **Support for Technological Universities/Institutes of Technology**

Completion of the SFI Frontiers for the Future 2020 call

SFI Frontiers for the Future programme launched again in July 2020 with a fixed deadline for the SFI Frontiers for the Future Projects stream. The SFI Frontiers for the Future Awards stream is operating on a rolling call basis.

SFI Frontiers for Partnerships – Support for Technological Universities

The SFI Frontiers for Partnerships is a new stream to support Ireland's TU and IoTs in partnership with their University counterparts following additional budget allocation from D/FHERIS. These applications will be led by the TU/IoT researchers and will support teaching buyout and the recruitment of PhD students.

SFI-IRC Pathway Programme – joint call with the IRC

The "Our Shared Future" Programme for Government sets a vision for Ireland "to be a global leader in research and innovation across the art, humanities, social sciences and STEM". Part of that vision includes a commitment to develop career pathways for early career researchers with starting grant funding rounds to be issued on an annual basis from each of our funding institutions. This is reflected

in the new SFI strategy, in which a key theme is to foster diverse Top Talent by building, attracting, and retaining the academic and research talent that powers Ireland's innovation society.

Both the IRC and SFI agree that there is a strong need in the research community for a funding programme that will retain highly-skilled, excellent postdoctoral researchers (typically 3 years post PhD) in the Irish system, and which will be an attractive vehicle for those who wish to transition to an independent research career in any discipline.

Additional funding has been provided by D/FHERIS to support the new SFI-IRC Pathway programme which will be open to postdoctoral researchers in the STEM and AHSS fields.

SFI Research Professorship Programme

A key objective of the SFI Strategy is to recruit world leading researchers and rising stars to move to Ireland to act as nuclei of world-class research groups which will attract Foreign Direct Investment, entrepreneurial activity and bolster local expertise. The SFI Research Professorship Programme facilitates this objective and will continue operating as a rolling call in 2021. The Programme currently has two preferential themes to encourage applications from female research professors and to facilitate joint appointments with Institutions in the United Kingdom.

Research Infrastructure

SFI Research Infrastructure

A key action from the SFI Strategy is to Invest in state-of-the-art research infrastructure programmes which will facilitate high-quality, excellent research. The SFI Research Infrastructure Programme will run in 2021, with a clear objective to invest in equipment that will ensure Irish research remains at the cutting edge and is internationally competitive. There is a clear need within the research system for laboratory equipment to be refreshed and replaced on a regular basis.

International Collaborative Programmes

Lead Agency agreements with UK and other international funding agencies are an important component of SFI's portfolio. In many cases SFI funding is leveraged by combining with funding from other jurisdictions to support a larger international project. The number of partnerships has increased in recent years, offering further opportunities to the Irish research community to compete at an international level, to foster links with international collaborators and to expand their teams through international recruitment. The importance of these partnerships from a science diplomacy standpoint, as well as enabling exchange of ideas and knowledge between SFI and its partners at an agency level, must also be acknowledged.

US-Ireland Programme

The US-Ireland tri-jurisdictional schemes, involving Ireland, the US and Northern Ireland include the US-Ireland Investigator calls with the National Science Foundation (NSF) and the National Institutes of Health (NIH), and the US-Ireland Centre-to-Centre calls with the NSF. The partner agencies in the Republic of Ireland are SFI and the Health Research Board (HRB), in the US are the NIH and the NSF, and in Northern Ireland are the Department for the Economy (DfE), and the Health and Social Care agency NI (HSC NI).

SFI-Royal Society Partnership

The SFI-Royal Society partnership will continue to support Ireland-based applicants under the Royal Society University Research Fellowship (URF) scheme.

SFI-HRB-Wellcome Partnership

A provision has been made to continue support for Ireland-based applicants to a wide range of Wellcome programmes in 2021, under the co-funded SFI-HRB-Wellcome partnership.

SFI-EPSC Partnership

SFI will continue partnership with the UK Engineering and Physical Sciences Research Council (EPSRC).

European Co - Funding Initiatives

SFI will continue to support European Co-Funding Initiatives awards.

Science Engagement, Policy and Career development

SFI Fellowship Programme

The SFI Fellowship Programme provides a training opportunity for the research community to engage in the role of science policy and administration within SFI.

SFI Discover Programme

The SFI Discover Programme supports education and public engagement in STEM.

- The annual **SFI Discover Programme Annual Call** will run in 2021, supporting projects that broaden and inspire participation in STEM, that build public engagement capacity building and contribute to the STEM talent pipeline.
- The annual **SFI Discover Programme Science Week Call** will run in 2021, to support broad and innovative access to Science Week across the country.
- The **SFI/RTÉ Joint Initiative Agreement** will be continued into 2021, subject to review by both parties.

SFI Maternity Allowance

SFI will continue to support Maternity Allowance awards, in line with SFI's Gender Policy.

Innovation, Entrepreneurship and Commercialisation

Challenge Funding – SFI Future Innovator Prize

SFI is currently undertaking multiple, complementary approaches to the development and implementation of challenge-based funding, to enhance delivery of societal impact from government-funded research. Co-funded initiatives with other Public Service Bodies will also be scoped and developed during 2021.

SFI-NSF I-Corps@SFI Entrepreneurial Training Programme

The I-Corps@SFI Programme which supports evidence-based entrepreneurship training, is planned to continue in 2021 following renewal of the current agreement with the NSF.

SFI Research Centres

Shaping Our Future sets out an objective to grow and evolve the SFI Research Centres programme and other enterprise facing SFI programmes to drive research across all areas of STEM, supporting economic recovery, as well as addressing major societal challenges, such as climate change. SFI will continue to support the 16 SFI Research Centres in 2021.

Encourage and fund new industry partnerships

SFI's Agenda 2020 had a strong focus on developing a research ecosystem where academia and business collaborate effectively, driving research out into the market and society. Shaping Our Future will build on the success of Agenda 2020 through driving deeper company research and innovation engagement, addressing Ireland's underperformance within the EU in terms of private investment in public R&D.

SFI Spokes programme

The SFI Spokes Programme is a rolling call that enables SFI Research Centres to apply together with industry partners for additional funding to support new collaborative research projects at any time. A revised version of the SFI Research Centres Spokes Programme will launch in 2021 with a new focus on driving development of cross-Centre Spoke collaborations, in addition to industry partner collaborations.

SFI Strategic Partnerships

The SFI Strategic Partnerships programme supports novel co-investment partnerships with the private sector including industry, philanthropy and charitable organisations, in areas not covered by an existing SFI Research Centre.

SFI Industry RD&I Fellowship programme

A new SFI Industry RD&I Fellowship programme will launch in 2021.

4. Overview of 2021 - Planned Programme Calls

All launch dates provided in these tables are indicative and are subject to change, in response, for example, to alterations in SFI’s annual grants budget, staff resources, other new schemes SFI may develop and Government policy/priorities.

Programmes launched during 2020 or earlier, with a 2021 funding decision

Programme	Award Decision Timeframe
SFI Frontiers for the Future 2020 (projects)	Q2 2021
SFI Future Innovator Prize AI for Societal Good Challenge	Q1 2021
SFI Future Innovator Prize Award Prize for Zero Emissions Challenge	Q1 2021
SFI Future Innovator Prize - Seed Awards for Food Challenge	Q1 2021
SFI Future Innovator Prize - Seed Awards for Plastics Challenge	Q1 2021

Fixed Deadline Calls Open in 2021

Programme	Call Launch	Call Deadline	Award Decision Timeframe
SFI Frontiers for the Future (projects)	H2 2021	Q4 2021	Q2 2022
SFI Frontiers for Partnership	Q2 2021	Q2 2021	Q4 2021
Research Infrastructure	H1 2021	H1 2021	Q4 2021
SFI Industry RD&I Fellowship (1 call deadline)	Q1 2021	Q2 2021	Q3 2021

SFI Discover	Q2 2021	Q3 2021	Q4 2021
SFI Discover Science Week	Q1 2021	Q2 2021	Q3 2021
SFI Fellowship	Q2 2021	Q2 2021	Q3 2021
SFI/IRC Pathway	H1 2021	Q3 2021	Q4 2021

Rolling Calls Open during 2021

Programme
SFI Strategic Partnerships
SFI Frontiers for the Future (Awards)
SFI Research Professorship
SFI Spokes Programme
Maternity Allowance
SFI Discover Programme Opportunistic Funding Mechanism

International Partnerships Open in 2021. Deadlines as scheduled by Lead Agency.*

Programme
US-Ireland R&D Partnership Programme
SFI-HRB-Wellcome Research Partnership
SFI-Royal Society University Research Fellowship
EPSRC-SFI Standard Research Grants
SFI/NSF I-CORPS@SFI Entrepreneurial Training Programme

** Researchers funded through the **SFI-BBSRC (UK)** and **SFI-NNSFC (China)** will continue to be supported and evaluated, although new calls are not currently planned for 2021.*