

SCIENCE FOUNDATION IRELAND

SFI Frontiers for the Future Programme 2020

Call for Submission of Proposals

Key Dates

Call advance notice:	14 th May 2020
Call launch:	15 th July 2020
FFP Project proposal submission:	Fixed Deadline: 8 th October 2020, 13.00 Dublin local time
FFP Award proposal submission:	Rolling Call: Accepting applications from 1 st September 2020. FFP Awards will remain open for a minimum of 12 months (i.e. end of August 2021).

Call document updated on 16th July 2020

Terms of Reference

While every effort has been made to ensure the accuracy and reliability of this document, it is provided for information purposes only and as a guide to expected developments. It is not intended, and should not be relied upon, as any form of warranty, representation, undertaking, contractual, or other commitment binding in law upon Science Foundation Ireland, the Government of Ireland, or any of their respective servants or agents. SFI Terms and Conditions of Research Grants shall govern the administration of SFI grants and awards to the exclusion of this and any other oral, written, or recorded statement.

All responses to this Call for Submission of Proposals will be treated in confidence and no information contained therein will be communicated to any third party without the written permission of the applicant except insofar as is specifically required for the consideration and evaluation of the proposal or as may be required under law, including the Industrial Development (Science Foundation Ireland) Act, 2003, the Industrial Development (Science Foundation Ireland) (Amendment) Act 2013 and the Freedom of Information Acts 1997 and 2003.

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1 Introduction

The Science Foundation Ireland (SFI) Frontiers for the Future Programme (FFP) supports the development of world class research capability and human capital in areas of science, technology, engineering and mathematics (STEM) that demonstrably support and underpin enterprise competitiveness and societal development in Ireland. The purpose of this funding scheme is to provide opportunities for independent investigators to conduct highly innovative, collaborative research with the potential to deliver impact, whilst also providing discrete opportunities for high-risk, high-reward research projects. SFI is committed to increasing the number of SFI grants held by female researchers, as described in its Gender Strategy (*Strand 2: Gender Balance in Research Teams*)¹. Towards achieving this goal, the Frontiers for the Future Programme provides additional supports for excellent female researchers to secure funding. The programme also provides additional opportunities for “Emerging Investigators” who have taken periods of leave from their research careers or who have not previously held a significant SFI grant.²

The SFI Frontiers for the Future Programme provides funding for independent researchers through two streams – Frontiers for the Future Programme **Projects** and Frontiers for the Future Programme **Awards**:

- **Frontiers for the Future Projects** provide funding for high-risk, high-reward research that facilitates highly innovative and novel approaches to research.
- **Frontiers for the Future Awards** provide larger scale funding for innovative, collaborative and excellent research programmes that have the potential to deliver economic and societal impact.

The review process incorporates weighting of scores which will result in decreased emphasis on the impact criterion for SFI Frontiers for the Future Projects, compared to Awards (see Appendix A for details).

Applicants can apply for either an SFI Frontiers for the Future Programme **Project** or an SFI Frontiers for the Future Programme **Award**, subject to all programme eligibility criteria being met. The funding levels and durations are summarised here:

SFI Frontiers for the Future Programme		
	FFP Projects	FFP Awards
Deadline	Fixed Deadline: 8 th October 2020, 13.00 Dublin local time	Rolling Call: Accepting applications from 1 st September 2020. FFP Awards will remain open for a minimum of 12 months (i.e. end of August 2021). ³
Amount	€200,000 - €480,000 (direct costs)	€500,000 - €1,000,000 (direct costs)
Duration	24, 36 or 48 months	48 or 60 months

¹ <https://www.sfi.ie/funding/sfi-policies-and-guidance/gender/>

² Defined in section 2.3

³ Subject to budget availability

Objectives of the SFI Frontiers for the Future Programme

- To build research capacity, expertise and reputation through funding excellent scientific research
- To fund highly innovative Awards with strong potential for impact and to provide the opportunity to conduct high-risk, high-reward Projects
- To provide additional supports for excellent female researchers to secure funding
- To retain and improve Ireland's reputation as a place to carry out excellent research
- To facilitate researchers based in Ireland to lead consortia and to win further support through various non-Exchequer funding schemes
- To allow Ireland-based researchers to win top-tier international prizes
- To develop an integrated research ecosystem through partnerships with other agencies
- To support relevant collaborations and partnerships
- To support researchers returning to active academic research after a period of eligible leave

As a follow-on from SFI's Agenda 2020,⁴ we are preparing for the release of SFI's new strategic plan, which centres around building on the excellent SFI-funded research and talent, and producing tangible benefits for our society and economy. In addition we are preparing Ireland's research and innovation system to support and enable the economy and society of tomorrow's world. In the draft Programme for Government,⁵ which has been agreed upon by the leaders of Fine Gael, Fianna Fáil and the Green Party, there is a strong focus on ensuring support for foundational and discovery research. The Frontiers for the Future Programme will fund proposals that are aligned to one of the 14 Refreshed Priority Areas for 2018-2023,⁶ or to any other research area within SFI's legal remit⁷ (i.e. oriented basic or applied research) where there is convincing evidence that there will be significant potential for economic and/or societal impact in Ireland. See Section 2.2 for details on the programme remit.

The Frontiers for the Futures call involves the participation of the Geological Survey of Ireland (GSI) as a co-funding partner. The research topics of interest under this call and the specific objectives of the partnership are described in Section 2.2.

As was the case in the 2019 Frontiers for the Future Programme call, female candidates are strongly encouraged to apply to this funding call, and we encourage applicants to consider SFI's Gender Strategy outlined below:

Gender Strategy

SFI is committed to increasing the number of SFI grants held by female researchers, as described in its Gender Strategy (*Strand 2: Gender Balance in Research Teams*).⁸ Towards achieving this goal, the SFI Frontiers for the Future Programme will provide additional supports for excellent female researchers to secure funding. When ranking applications, in the event of applications receiving the same final score, SFI will give priority in the review process to applications from female candidates.

⁴ <https://www.sfi.ie/funding/sfi-policies-and-guidance/research-impact/AGENDA-2020.pdf>

⁵ <https://merrionstreet.ie/en/About/Programme-for-Government/>

⁶ <https://dbei.gov.ie/en/Publications/Publication-files/Research-Priority-Areas-2018-to-2023.pdf>

⁷ <http://www.sfi.ie/about-us/about-sfi/what-we-do/>

⁸ <https://www.sfi.ie/resources/SFI-Gender-Strategy-2016-2020.pdf>

Female candidates are strongly encouraged to apply to this funding call. Further details on SFI's data on application submission and success rates by gender can be found on the SFI website.⁹

Furthermore, as part of its Gender Strategy (Strand 3: Integrating Gender in Research and Innovation), SFI also aims to increase awareness of the sex and gender dimension in research, by requesting that researchers demonstrate that they have considered any potential biological sex and/or socio-cultural gender aspects in their proposed research programme.

SFI has recently become a signatory to the San Francisco Declaration of Research Assessment (DORA),¹⁰ and as such is aligning its review and evaluation processes with DORA principles. To this end, all types of research output are recognised and SFI is committed to assessing the quality and impact of research through means other than journal impact factors. In the spirit of supporting open research and as a signatory of Plan S,¹¹ SFI will also consider a commitment to making data and other types of research, open and accessible.

2 Programme Details

2.1 Funding

SFI Frontiers for the Future Projects budgets are in the range of €200,000 - €480,000 in total direct costs and have a duration of 24, 36 or 48 months. **SFI Frontiers for the Future Awards** are in the range of €500,000 - €1,000,000 in total direct costs and have a duration of 48 or 60 months.

2.2 Programme Remit

The legal remit of SFI is to promote, develop and assist the carrying out of oriented basic and applied research in strategic areas of scientific endeavour that concern the future development and competitiveness of industry and enterprise in the State.¹² **Oriented basic research** is “*research that is carried out with the expectation that it will produce a broad base of knowledge that is likely to form the background to the solution of recognised, or expected, current or future problems or possibilities*”. Additionally, **applied research** is defined as “*an original investigation undertaken to acquire new knowledge and is directed primarily towards a specific practical aim or objective. The results of applied research are intended primarily to be valid for a single or limited number of products, operations, methods, or systems*”.

The Irish Government has undertaken a review of the objectives of National Research Prioritisation, building upon the original exercise carried out in 2012,¹³ and taking into account a number of important current challenges and developments; including the growth of disruptive technologies, Brexit and the adoption of UN Sustainable Development Goals, amongst others. Research

⁹ <https://www.sfi.ie/funding/sfi-policies-and-guidance/gender/>

¹⁰ <https://sfdora.org/read/>

¹¹ <https://www.coalition-s.org/>

¹² <https://www.sfi.ie/about-us/about-sfi/what-we-do/>

¹³ <https://dbei.gov.ie/en/Publications/Publication-files/Research-Prioritisation.pdf>

Prioritisation will continue to demand that the majority of Ireland’s competitive funding is concentrated on areas deemed likely to yield the greatest economic and societal impact.

For this call, proposals must either be aligned to one of the 14 Refreshed Priority Research Areas for 2018-2023¹⁴ or to any other area under SFI’s legal remit¹⁵ where there is convincing evidence that there will be significant potential for economic and/or societal impact (see table below). These 14 areas are now the constituents of six broad Enterprise themes that underpin the updated prioritisation exercise.

SFI and other international research funding organisations promote international collaboration within research areas of shared importance, such as COVID-19. SFI welcomes and indeed encourages international collaboration, in particular collaboration that involves participation and financial support from other international funding organisations.


Frontiers for the Future – Research Areas	
ICT	Future Networks, Communications and Internet of Things
	Data Analytics, Management, Security, Privacy, Robotics and Artificial Intelligence (including Machine Learning)
	Digital Platforms, Content and Applications, and Augmented Reality and Virtual Reality
Health	Connected Health & Independent Living
	Medical Devices
	Diagnostics
	Therapeutics
Food	Food for Health
	Smart and Sustainable Food Production and Processing
Energy, Climate Action and Sustainability	Decarbonising the Energy System
	Sustainable Living
Manufacturing and Materials	Advanced and Smart Manufacturing
	Manufacturing and Novel Materials
Services & Business Processes	Innovation in Services and Business Processes
	Other Research Areas with Significant Potential for Economic and/or Societal Impact

¹⁴ <https://dbei.gov.ie/en/Publications/Publication-files/Research-Priority-Areas-2018-to-2023.pdf>

¹⁵ <http://www.sfi.ie/about-us/about-sfi/what-we-do/>

Co-Funding Partnerships

The SFI Frontiers for the Future Programme includes a co-funding partnership with the Geological Survey of Ireland (GSI). The partnerships between SFI and the GSI is based on alignments to research topics that are of particular significance to the GSI's research objectives (see table below). Following the submission of proposals, SFI will reach agreement with GSI on which proposals may be supported through the partnership. All applications that potentially align to the research topics outlined by the GSI in the table below will be considered for support under the partnership. There is no requirement for applicants to indicate specifically that funding through the partnership is sought. Partnership and non-partnership applications to this call will be treated the same, with respect to the review process.

 <p>Geological Survey Suirbhéireacht Gheolaíochta Ireland Éireann</p>	<p>The co-funding partnership with the Geological Survey of Ireland aims to support excellent scientific research that has potential economic and societal impact. The SFI-GSI Partnership applies to the geoscience topic areas listed below. Successful grants under these areas are expected to improve our understanding and/or management of Earth systems.</p> <ul style="list-style-type: none"> • Security of supply of raw materials • Soil health • Coastal Geoscience • Geohazards • Geochemistry • Geophysics • Groundwater resources • Earth observation • Geotechnical engineering • Application of machine learning/AI to geological datasets • The geological record of climate change
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By submitting an application to the SFI Frontiers for the Future Programme, an applicant is accepting that SFI has the right to share information (including the application and any post-award reports submitted to SFI) with existing and potential co-funding partners, on a confidential basis, without the need to obtain any further consents from such applicants.

2.3 Definition of Lead Applicant, Co-Applicant, and Collaborator

The **Lead Applicant** will be responsible for the scientific and technical direction of the research programme and the submission of reports to SFI. The Lead Applicant has primary responsibility and accountability for carrying out the research within the funding limits awarded and in accordance with SFI General Terms and Conditions.¹⁶ The Lead Applicant will serve as the primary point of contact for SFI on the grant, during the review process and, if successful, during the course of the grant.

¹⁶ <http://www.sfi.ie/funding/sfi-policies-and-guidance/sfi-general-terms-and-conditions/>

The **Co-Applicant** has a well-defined, critical and continuing role in the proposed investigation. For the purposes of **eligibility, reviewing** and **monitoring**, a Co-Applicant applying for funding under the SFI Frontiers for the Future Programme will receive equal evaluation to the Lead Applicant and will hold equal accountability for the delivery of the proposed research objectives. In this documentation, the terms and conditions for 'Lead Applicant' and Co-Applicant' are interchangeable. Inclusion of Co-Applicants is not mandatory and no more than one Co-Applicant per application is permitted. **Co-Applicants are not permitted on an application if applying under the Emerging Investigator category;** however, these applicants are permitted to include a mentor, as described below.

A Co-Applicant may be located at a different eligible Research Body to the Lead Applicant. However, the grant will be administered through the Research Body of the Lead Applicant only. All Co-Applicants must comply with the same eligibility and evaluation criteria as the Lead Applicant.

Emerging Investigator Category

Applicants who fulfil the programme eligibility criteria (see Section 2.4) can choose to be reviewed as an "Emerging Investigator" if, in addition, they:

- have not previously held a significant SFI research award (including, but not limited to, SFI's Investigators Programme awards, Career Development Award, Research Centres, US-Ireland R&D Partnership Programme, Strategic Partnerships Programme, President of Ireland Young Investigator Award, President of Ireland Future Research Leaders, Research Professorship Programme) as Lead Investigator or co-Investigator, **or**
- have had a period of eligible leave from research (e.g., following time spent in industry, statutory maternity leave, statutory adoptive leave, statutory parental leave, statutory paternity leave, carer's leave, long-term medical illness leave, conscription).

Applicants applying under the Emerging Investigator category can apply to SFI Frontiers for the Future Programme Projects or Awards, subject to all programme eligibility criteria being met. The "Emerging Investigator" category will be assessed alongside and against the same criteria as all other applicants; however, the weighting of the review scores will mean that there is increased emphasis on the research proposal over the track record (see details on the review process in Appendix A).

Note: Although an applicant may meet the criteria of an Emerging Investigator, there is no obligation to apply under this category.

Reviewers will not be made aware if an applicant is applying under the Emerging Investigator category. All SFI Frontiers for the Future Programme applicants are requested to detail any periods of leave from research in their CV – this will be taken into account by reviewers when assessing the track record of applicants.

Applicants applying under the Emerging Investigator category may elect to assign a mentor to their application. The Mentor will be an established researcher within the host institution who will provide advice and guidance to the award holder and associated team. The Mentor may also take the role of a co-supervisor for staff and/or students employed on the research programme, but it is the award holder who will always act as the primary supervisor. The Mentor does not play a supervisory or presiding role to the award holder but acts solely as an advisor. The nomination of a mentor is not obligatory, but may strengthen or formalise the institutional support to be provided to the applicant.

Successful applicants funded under the Emerging Investigator category will not be differentiated from the standard cohort of SFI Investigators once a grant has been made.

Applicants applying under the Emerging Investigator category must provide a statement detailing how they are eligible to apply under the category and scanned copies of supporting documents detailing periods of leave from research or time spent in industry, where relevant. These documents will not be circulated to reviewers.

Any queries in relation to eligible leave can be forwarded to FFP@sfi.ie.

An **Academic Collaborator** is an individual working in an academic institution who is committed to providing a valuable intellectual and/or technical contribution to the proposed research. As appropriate, Academic Collaborator(s) based in an SFI Eligible Research Body within the Republic of Ireland may receive funding through the grant (see the budget section for details), but the funding allocated should reflect the supporting role that such Collaborator(s) are expected to play in the research programme. Academic Collaborators may not be the primary supervisor/mentor of postgraduate students, postdoctoral researchers or research staff enrolled on the grant, but may be the local supervisor if these team members are based in a different institution to the Lead or Co-Applicant. Academic Collaborators intending to act as a local supervisor to team members should be able to demonstrate a competitive track record of achievements and must have previously held a supervisory role in research programmes.

Industry partners are not obligatory, but are permitted and, where appropriate for the topic of the research, are encouraged. An industry partner should be listed within the documentation as an **Industry Collaborator**.

Please see Section 3.6 below regarding documentation to be provided by Collaborators.

2.4 Eligibility Criteria of Applicant and Co-Applicant

2.4.1 Employment Status

The Lead Applicant and any Co-Applicant must be members of the academic staff of an eligible Research Body (permanent or with a contract that covers the period of the grant), **or**

A contract researcher with a signed contract in place on the date of proposal submission to SFI. This contract must cover the period of the grant, and the contract researcher must be recognised by the Research Body as an independent investigator and will have an independent office and research space at the host Research Body for which the researcher will be fully responsible for *at least* the duration of the SFI grant.

If an applicant is in the process of moving from another organisation, it is mandatory that a signed employment contract with the new host institution, covering the duration of the grant is in place (and signed) on the date of proposal submission, and should the application be successful, the applicants must have taken up their independent position at their new host institution before a grant can commence.

The letter of support from the host Research Body of the Lead Applicant must detail the employment status of the Applicant(s), including how the Applicant(s) meet the eligibility criteria for this call. A letter of support from the host Research Body of the Co-Applicant (if different from the Research Body

of the Lead Applicant) is also required. For further information on Research Body Letters of Support, please see Section 3.11 below.

It should be noted that Lead Applicant or Co-Applicant salary is not an eligible cost for the SFI Frontiers for the Future Programme. Applicants must obtain their salary either from an award in their own name (excluding fellowship-type awards) or be salaried by the host institution. **Postdoctoral researchers (or equivalent) are not eligible to apply to this call.**

Retired or Emeritus members of academic staff, meeting all other eligibility criteria, are eligible to apply if their institution makes the necessary commitments; further details are available on the SFI website.¹⁷

In advance of proposal submission, eligibility queries regarding employment status may be directed to SFI at FFP@sfi.ie; however, full eligibility checks are not conducted before proposal submission.

2.4.2 PhD Duration

The Lead Applicant and any Co-Applicant must have held a PhD or equivalent¹⁸ qualification for at least **three years** at proposal submission.

- The official date of a PhD is defined as the year that the degree was conferred (i.e., the year printed on the official PhD certificate). The number of years is determined by calendar year. E.g. only individuals with an official date of 2017 or earlier are eligible to apply to the SFI Frontiers for the Future Programme call in 2020.
- Details on SFI's PhD equivalence policy can be found on the SFI website.¹⁹

2.4.3 Senior-Author Publications

The Lead Applicant and any Co-Applicant are required to demonstrate that they are a **senior author** on at least **three international peer-reviewed articles**. Only original research publications, and not review articles or other secondary research literature, are acceptable. For this programme, senior authors are defined as follows:

- Authors that are listed as first or joint-first author, reflecting the fact that they have provided the greatest intellectual contribution, have held the primary responsibility for collecting and analysing data, and for the writing of the manuscript and associated drafts.
- Last authors will also be considered as a senior author, since this position generally reflects their overall responsibility for the study and suggests that a level of mentorship has been provided.

¹⁷ <http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/>

¹⁸ http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/PHD-equivalence-policy_September_2018.pdf

¹⁹ http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/PHD-equivalence-policy_September_2018.pdf

- It will be noted that different publishers have differing rules on how the senior authorship is indicated (e.g., by using asterisks, underlining, placing the name first or last in the list of authors, etc.); however, it is of overriding importance that the applicants should be able to convince and reassure reviewers that they are the key author on these publications. Joint-first authorship may only be claimed where the article clearly states that two (or more) authors have provided equal and significant contributions to the work described. Please note that senior authorship does not necessarily mean that the researchers were responsible for the finance associated with the research that was reported.

Applicants are required in their CV to detail up to three peer-reviewed, senior-author primary-research publications, which will confirm, that the applicant meets the eligibility requirements for publications for this programme. Failure to use the template or deviating from the instructions in the template may result in an application being deemed ineligible.

2.4.4 Other SFI Grants

Applicants holding active SFI awards, or who are under review in other SFI calls, should refer to the information below regarding eligibility for the SFI Frontiers for the Future Programme:

Investigators funded through an existing grant from the SFI programmes listed below may apply to the SFI Frontiers for the Future Programme 2020 call at any stage of their grant and once all other eligibility criteria are met:

- SFI Research Centres
- SFI, EI, IDA COVID-19 Rapid Response Funding Call
- Investigators Programme Projects
- SFI ERC Development Programme
- US-Ireland R&D Partnership
- SFI-HRB-Wellcome Trust Biomedical Research Partnership
- Royal Society – Science Foundation Ireland University Research Fellowship
- SFI-Pfizer Biotherapeutics Innovation Award Programme
- SFI Strategic Partnerships Programme
- SFI Technology Innovation Development Award
- SFI Industry Fellowship Programme
- BBSRC-SFI Joint Funding of Research
- EPSRC-SFI Joint Funding of Research
- SFI-NSFC Partnership Programme
- SFI Discover Funding Programme
- SFI ERC Support Programme
- SFI-NSF Graduate Research Opportunities Worldwide (GROW)
- Joint Programming Initiatives and European Research Area Networks
- SFI Research Infrastructure Programme
- SFI/NSF I-Corps
- SFI Centres for Research Training Programme

Investigators currently funded by SFI as either a Principal Investigator (PI) or co-Principal Investigator (co-PI) under certain programmes may **only** apply to the SFI Frontiers for the Future Programme 2020 call if the proposal submission date is less than 24 months before the expiry date of their current award. These programmes include, but are not limited to:

- SFI Investigators Programme Awards (IvP)
- SFI President of Ireland Young Researcher Award (PIYRA)

- SFI Starting Investigator Research Grant (SIRG)
- SFI Career Development Award (CDA)
- SFI President of Ireland Future Research Leaders Award (FRL)
- SFI Research Professorship Programme

For current SFI Frontiers for the Future Programme award holders:

- applicants who hold a previously granted Frontiers for the Future **Project** may not apply for an Award or Project unless they are in the final **12 months** of their current Project at date of submission.
- applicants who hold a 2019 Frontiers for the Future **Award** may not apply for an Award or Project unless they are in the final **24 months** of their current Award at date of submission.

SFI Research Centres

Restrictions on the eligibility of the SFI Research Centre PIs and Co-PIs that were in place for the 2019 Frontiers for the Future programme have now been lifted. SFI Research Centre PIs and Co-PIs may apply to the SFI Frontiers for the Future Programme 2020 call at any stage of their grant and once all other eligibility criteria are met.

All individuals managing other/multiple SFI grants must provide justification and rationale for how they would manage two or more major SFI grants under the heading: “Management of More Than One Major SFI Award” as part of the information concerning scientific overlap (Section 3.5).

Applicants currently under review by SFI as either Lead Applicant or Co-Applicant under certain programmes are not entitled to apply to the SFI Frontiers for the Future Programme 2020 call. These programmes include, but are not limited to:

- SFI President of Ireland Future Research Leaders Award
- SFI Research Professorship Programme

Applicants under review for the **COVID-19 Rapid Response Funding Call** will be permitted to apply to the SFI Frontiers for the Future Programme (subject to all eligibility criteria being met), but the applications should be distinct i.e. SFI will not re-review an application within the Frontiers for the Future Programme that has been submitted to the COVID-19 Rapid Response call. As detailed in the COVID-19 Rapid Response call document, potential applicants are advised to consider the suitability of their proposal and to consider the most appropriate mechanism.

Individuals may only be under review as an applicant (Lead or Co-Applicant) on one proposal to the SFI Frontiers for the Future Programme. Applicants under review by SFI for the SFI Frontiers for the Future Programme Projects stream as Applicants or Co-Applicants are not eligible to apply for the Awards stream of the programme until at least six months after the notifications on the outcome of the review process have been released. Similarly, applicants under review by SFI for the SFI Frontiers for the Future Programme Awards stream as Applicants or Co-Applicants are not eligible to re-apply for the Awards stream of the programme until at least six months after the notifications on the outcome of the review process have been released. Applicants and Co-Applicants are not permitted to have an Award and a Project application under review at the same time.

SFI has stringent requirements for the reporting²⁰ by awardees on the grants that it makes. Failure to satisfactorily complete SFI's reporting requirements on a current or historic SFI funded award may result in an applicant being deemed ineligible for the SFI Frontiers for the Future Programme.

2.5 Eligibility of Research Body

The Research Body of the Lead Applicant is the body responsible for the overall financial and administrative co-ordination of research programmes supported by funding from SFI. In cases where more than one Republic of Ireland based applicant shares responsibility for a grant, the grant will be administered by the host Research Body of the Lead Applicant. A list of Eligible Research Bodies is available on the SFI website.²¹

3 Application Procedure

Proposals will only be accepted through SESAME, SFI's grants and awards management system. Please note that there are separate SESAME application forms for Projects and Awards.

Access to SESAME is controlled by staff at the Research Office of your host Research Body. SESAME is accessed using the internet; no additional software needs to be installed. You can access SESAME online from any location. SESAME supports Internet Explorer, Chrome and Firefox. With Mac we recommend that you use either Firefox or Chrome. The configuration of some browsers and internet infrastructure (popup blockers, firewalls, etc.) can restrict an individual's access to the internet and as a result, to the SESAME system. If you are having any such difficulties, please contact your organisation's internal IT support team.

The SESAME system is accessed here: <https://grants.sfi.ie>

Please see the SESAME Researcher User Guide²² for more detailed information.

Once submitted by the host Research Body to SFI through SESAME, **an application cannot be withdrawn and subsequently modified for resubmission in the same call, regardless of the date of submission.**

Proposals must be submitted online through SESAME to SFI by the Research Office of the Lead Applicant's Research Body:

- **Projects: Deadline - 8th October 2020, 13:00 local Dublin time, and**
- **Awards: Rolling call open from 1st September 2020.**

Proposal submission requirements:

²⁰ <https://www.sfi.ie/funding/sfi-policies-and-guidance/sfi-general-terms-and-conditions/>

²¹ <http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/>

²² <http://www.sfi.ie/funding/award-management-system/>

- **All text in uploaded PDFs** should be provided in Calibri font or similar, with minimum font size of 11, and at least single-line spacing as well as a minimum margin size of 2.5cm. Text in diagrams may be in any clearly legible font.
- Uploads in SESAME must be submitted in **Adobe or Microsoft PDF format only**. Please ensure to use unencrypted, non-password protected PDFs with the copying function disabled, developed using either Adobe or Microsoft word PDF convertor software only.
- The number of pages in uploads must not exceed the specifications for any given section. **Applications that do not comply with these requirements will be deemed ineligible and will be returned without review.**
- Appendices or other unsolicited documentation are not permitted. **Applications that include such unsolicited documentation will be returned without review.**
- File sizes of attachments should be less than 5MB.
- Hyperlinks and URLs are only allowed when specifically noted in call documents or SESAME guidance/instructions. The use of hyperlinks is typically limited to citing information already in the public domain which is non-critical to the evaluation of the proposal. Hyperlinks and URLs may not be used to provide additional information, which would be necessary for application review, and as a means of circumventing page limits. Reviewers are not obligated to view linked sites and are cautioned that they should not directly access a website (unless the link to the site was specifically requested in application instructions). When allowed, you must reference the actual URL text so it appears on the page, for example in brackets or in a footnote, rather than embedding the URL in a specific word or phrase.
- Applicants and Co-Applicants must complete all mandatory SESAME profile fields (marked in red) before submitting an application. It is not possible to submit an application without this information.

Applications not adhering to these requirements, or with incomplete content, will be deemed ineligible and will not be accepted for review, regardless of the date of submission.

It is the responsibility of the Lead Applicant to ensure that eligible proposals are received by SFI before the deadline indicated. In order to safeguard against ineligibility, applicants are reminded to adhere rigorously to the guidelines in the call documentation and to review the proposal document prior to submission in SESAME.

Please note that proposal eligibility checks will be completed by SFI staff.

Applications cannot be withdrawn and subsequently modified for re-submission in the same call.

3.1 ORCID ID

ORCID²³ provides a unique identifier for all researchers, which can then be linked to their different research works across different platforms. There are a number of benefits to creating an ORCID iD, which include the following:

²³ <http://orcid.org/>

- ORCID allows you to pull information from different platforms, creating a centralised reference to your different works (e.g., publications, patents, awards) in one location using a single sign in.
- Your ORCID iD is a unique identifier, which distinguishes you from other researchers with a similar name.
- Using the ORCID iD helps to make your research works more visible to funders and publishers. You are able to build a complete picture of your research in one location.

As part of the integration of SESAME with ORCID, it is possible for researchers to import publication data from ORCID directly into their SESAME Research Profile. Both **Applicants and Co-Applicants** are required to link their SESAME Research Profiles to an ORCID iD **before an application can be submitted**.

3.2 Proposal Summary

Please populate the following required proposal sections on SESAME, as outlined below.

- **Proposal Title (max. 30 words)**
The Research Proposal title should clearly convey the nature of the research to be undertaken and should not contain confidential details, given that the titles of funded proposals are published by SFI.
- **Duration of Grant Requested**
SFI Frontiers for the Future Projects are funded for a period of 24, 36 or 48 months. SFI Frontiers for the Future Awards are funded for a period of either 48 or 60 months. Please add the duration in months of your proposal.
- **Total Funding Request (in €)**
This figure will be populated from the requested budget submitted.
- **Resubmission Statement**
Applicants must declare whether a new submission relates to a previous unsuccessful application to any SFI scheme. If the application is a resubmission, a statement referencing the previous application and explaining the differences must be provided and must make reference to reviewer comments where relevant. This statement will assist SFI Scientific Staff in the assessment of the eligibility of a revised application and will not be shared with reviewers. See SFI's Resubmission policy for further details.²⁴
- **Priority Area Alignment**
Applicants should select one of the 14 Refreshed Priority Areas from the drop-down menu as the Primary Priority Area, which best describes the proposed research. Alternatively, applicants may select "Other". It is also possible to detail Secondary Priority Areas that the research will be relevant to.
- **Research Area (Primary)**
Applicants should select a primary SFI research area from the drop-down menu, which best describes the proposed research.

²⁴ <http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/>

- **Research Area (Secondary)**
Applicants should select a secondary SFI research area from the drop-down menu, which in combination with the primary SFI research area already selected, best describes the proposed research.
- **Alignment to SFI Legal Remit (max. 250 words)**
This section must be used to describe how the proposed research aligns to SFI's legal remit, as defined in the SFI Frontiers for the Future Programme call document. This statement will be used to determine the eligibility of the application.

3.3 Lead Applicant Details

- **Time Commitment to Grant**
Indicate the Lead Applicant's time commitment to the proposed research project as a percentage of their total working time. The time committed should reasonably reflect the amount of funding being requested.
- **Lead Applicant DORA-compliant CV (Upload)**
A CV of the Lead Applicant, using the template provided in the Downloads section of the SFI Frontiers for the Future Programme website,²⁵ must be completed and uploaded. **(upload; max. 5 pages). Please click on "Save Draft" after upload. Please note that the current template has changed from the template provided in the 2019 call.** The current template allows for the provision of additional information such as periods of leave from research if relevant. **Also, reference to metrics such as journal impact factor, h-index and total number of publications are not permitted.**

Failure to use this template or deviating from the instructions in the template may result in an application being deemed ineligible.

- **Emerging Investigator Category**
Please indicate if you are applying under the Emerging Investigator category. Please note that Co-applicants are **not permitted** on an application if applying under the Emerging Investigator category. Inclusion of a Co-applicant for this group of applicants will result in the proposal being deemed ineligible. See Section 2.3 for details on the Emerging Investigator Category.
- **Emerging Investigator Documentation (Upload)**
Lead Applicants applying under the Emerging Investigator category must upload a statement detailing how they are eligible to apply under the category. If the Lead Applicant is applying under this Category due to eligible leave, scanned copies of supporting documents detailing periods of leave or time spent in industry, where relevant, must be provided (see Section 2.3 for further details on the Emerging Investigator Category). **Supporting documents should not include children's birth certificates or other personal and confidential documents.** HR letters are the most appropriate documented evidence of periods of leave or time spent in industry.

²⁵ <http://www.sfi.ie/funding/funding-calls/frontiers-for-the-future/>

Reviewers will not be made aware if an applicant is applying under the Emerging Investigator category and will not have access to the Emerging Investigator documentation. All SFI Frontiers for the Future Programme applicants are requested to detail any periods of leave from research in their CV – this will be taken into account by reviewers when assessing the track record of applicants.

- **Supervisory Experience**
Provide summary information on supervisory experience to date for the Lead Applicant.
- **Research Funding History**
See Section 3.5 below for details.

3.4 Co-Applicant Details

If there is a Co-Applicant on the proposal, they must login to SESAME to upload their CV, insert their research funding history and provide details relating to the summary of supervisory experience, as is the case for the Lead Applicant. In addition, they must agree to the Terms and Conditions of the proposal.

SESAME does not permit two individuals to concurrently modify a proposal. The Lead Applicant must close the proposal to allow the Co-Applicant to make modifications, and vice versa.

- **Time Commitment to Project**
Indicate the Co-Applicant's time commitment to the proposed research project as a percentage of their total working time. The time committed should reasonably reflect the amount of funding being requested.
- **Supervisory Experience**
Provide summary information on supervisory experience to date for the Co-Applicant.
- **Co-Applicant DORA-compliant CV (Upload)**
A CV of the Co-Applicant, using the template provided in the Downloads section of the SFI Frontiers for the Future Programme website,²⁶ must be completed and uploaded. **(upload; max. 5 pages). Please click on "Save Draft" after upload. Please note that the current template has changed from the template provided in the 2019 call.** The current template allows for the provision of additional information such as periods of leave from research if relevant. **Also, reference to metrics such as journal impact factor, h-index and total number of publications are not permitted.**

Failure to use this template or deviating from the instructions in the template may result in an application being deemed ineligible.

- **Research Funding History**
See Section 3.5 below for details.

²⁶ <http://www.sfi.ie/funding/funding-calls/frontiers-for-the-future/>

3.5 Research Funding History

The Lead Applicant and Co-Applicant (where relevant) must provide a report on expired, current and pending funding. Funding details may be added from the applicant's existing SESAME profile or can be created in this section.

- The applicant should include details of any financial support pending, or received over the previous ten years. This should include competitive research funding received from funding agencies (international and national), charities, industry, etc.
- The applicant must include details of any financial support currently provided, or currently being sought. Applicants must detail the total funding allocated to the grant and **the amount of this funding that is allocated to the Applicant. SFI will not support research currently being funded through another source.**
- For each current and pending grant listed, the applicant should provide a brief description of the research. Applicants must also indicate their time commitment to these other projects, as a percentage of their total working time.
- For pending grants, please include the expected decision date in the description box.
- Please complete the requested details for each expired, current, or pending financial support. Fields coloured red are mandatory. Certain field labels are underlined and contain further information concerning the details that are required; hover the mouse pointer over these labels to view this information.
- If the applicant is a Collaborator on a research project, the grant should not be included here; only awards where the applicant is either the Principal Investigator or Co-Investigator should be listed.
- The portion of research funding claimed in an applicant's name must be an accurate and fair reflection of their responsibility in the projects listed and will be verifiable as such. SFI may conduct audits to verify such claims and reserves the right to reject proposals where the above principle of proportionality is not observed.
- This section of the proposal will be reviewed as part of the applicant's track record. Applicants with a number of expired grants over the previous ten years may be selective with which funding grants to include in this section. Grants that are most relevant to the proposed research should be included.

Research funding may be added directly to the application or added from the applicant's profile (see the SESAME Researcher User Guide).²⁷ If this section is left blank it will indicate that the applicant has NO expired, current or pending funding. Both the Lead and Co-Applicant need to complete this section within SESAME.

Please ensure that research funding added to the profile of the Lead Applicant, or the profile of the Co-Applicant, has been included in the application via SESAME.

The applicant must complete the textbox detailing potential overlap between current and pending funding and the proposed research in this application. For each current and pending grant listed above, the applicant must clearly indicate any scientific overlap with this application, based on the methodologies being employed and the stated objectives of the funded project(s). Also, within this textbox, under the sub-heading "Management of More Than One Major SFI Award" applicants should provide justification and rationale for how they would manage two or more concurrent major SFI grants, where applicable.

3.6 Collaborator(s) Details

Include the name, contact information and other requested details of Collaborator(s), if any. Please see Section 2.3 for further information on the role of Collaborators.

CVs (max. 2 pages) for all Academic Collaborators must be uploaded. CVs may also be provided for Industry Collaborators; failure to provide Industry Collaborator CVs may disadvantage an application during the review process. The use of a template is not mandatory for Collaborator CVs, however we recommend that the DORA-compliant Collaborator CV template available on the programme webpage is used.²⁸ **We recommend to not include references to metrics such as journal impact factor, h-index and total number of publications in the Collaborator CV.**

Collaborator letters of support must be provided— further details are provided in Section 3.11 of this document.

3.7 Mentor Details (If Applicable)

Lead Applicants applying under the Emerging Investigator category are permitted to include a Mentor on their application.

CVs (max. 2 pages) for Mentors must be uploaded. The use of a template is not mandatory for Collaborator CVs, however we suggest that the DORA-compliant Collaborator CV template available on the programme webpage is used.²⁸

Mentor letters of support must be provided at proposal stage – further details are provided in Section 3.11 of this document.

²⁷ <http://www.sfi.ie/funding/award-management-system/>

²⁸ <http://www.sfi.ie/funding/funding-calls/frontiers-for-the-future/>

3.8 Main Body of Proposal

The following outlines the Frontiers for the Future Programmes proposal requirements.

- **Keywords (max. 15)**
These should be descriptors that best characterise the proposed research.
- **Scientific Abstract (max. 200 words)**
This should be a succinct and accurate summary of the proposed work when separated from the application.
- **Lay Abstract (max. 100 words)**
This should be a succinct and accurate summary in lay, non-technical language of the proposed work when separated from the application.
- **Ethical Issues**
 - **Use of Animals**
Applicants must indicate whether animals are to be involved in any of the research planned. Further details can be found on the SFI Ethical Policies webpage.²⁹
 - **Research Involving Human Participants, Biological Material or Identifiable Data**
Applicants must complete the questionnaire indicating whether their research programme will involve human participants, human biological material or the use of identifiable (or potentially identifiable) human data. Further details can be found on the SFI Ethical Policies webpage.²⁹ Clinical trials and investigations requiring approval by the Health Products Regulatory Authority (HPRA) will not be permitted through SFI's Frontiers for the Future Programme.
- **Sex and Gender Dimension in Research Statement (max. 1000 words)**

In accordance with the SFI Gender Strategy (Strand 3: Integrating Gender in Research and Innovation)³⁰, all applicants must complete a statement articulating the consideration of biological sex and/or social gender variables in their research programme. Applicants must consider how the sex and/or gender dimension impacts your research. Please consult the Guidance for Applicants on Ethical and Scientific Issues²⁹ for resources on how to address the sex and/or gender dimension of research in your grant.

Do not include information on how you have addressed gender equality, diversity and inclusion in your research team/environment; this should be addressed in Section 1B of your CV, should you choose to highlight.

To complete this section, please consider the following questions:

²⁹ <http://www.sfi.ie/funding/sfi-policies-and-guidance/ethical-and-scientific-issues/>

³⁰ <http://www.sfi.ie/funding/sfi-policies-and-guidance/gender/>

1. Is sex as a biological variable taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
2. Is gender as a socio-cultural factor taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?

If the answer is yes, please describe how sex and/or gender considerations will be integrated into your research proposal. If no, please explain why sex and/or gender are not applicable to your research proposal.

- **Research Programme (upload; Frontiers for the Future Awards max. 15 pages; Frontiers for the Future Projects max. 8 pages)**

Research Programme Page Limits	
Frontiers for the Future Projects	Max. 8 pages
Frontiers for the Future Awards	Max. 15 pages

The following points should be considered when describing the proposed research:

- Describe clearly and concisely the specific aims and objectives of the proposal. These aims should be coherent, well-planned and should be linked with real deliverables.
- Explain the background and significance of the problem – does the study address an important research problem? Is it strategically important? What is the current state of the art in the area? Describe and explain how the proposed work, if successful, will advance the state of the art. The background section should reference the state of the art in this research field.
- Are the concepts described novel? Ensure that the novelty of the approach is clearly explained, again with reference to the state of the art.
- The methodology of the proposed programme should be well developed, and how this proposed methodology advances the current state of the art should be described in detail. Is the proposed scientific approach (including the competencies and activities of the team members) feasible and realistic?

The application should also include:

- Appropriate timelines, milestones and expected outputs for the proposed research (e.g., a Gantt chart), and clear descriptions of the roles of the Lead Applicant, Co-Applicant(s), Collaborators and Team Members in the work programme.
 - Relevant preliminary data, if available, which may either take the form of (a) supporting reference(s) from the applicants' previous research, or (b) a summary of results where the data has yet to be published. In the latter case, this should be included within the research programme as evidence that the applicant team has a track record in the field of the proposed research.
- **References (upload; max. 5 pages)**
Appropriate references and citations for the proposed research must be provided in a separate PDF document. A five-page limit is permitted for uploaded references.
 - **Impact Statement (upload; max. 3 pages)**
The Impact Statement (max. 3 pages) should be as specific as possible and provide information that reviewers will find helpful in assessing the potential impact of the proposed research activity. Appropriate milestones and deliverables associated with the potential impact should

be indicated. Where appropriate for the topic of the research, industry collaborations including co-funding through cash and/or in-kind contributions should be discussed. Detailed Guidance in relation to impact, including information on how to prepare an impact statement, how metrics and narrative in support of impact are reported on and reviewed by SFI, as well as other useful links are found on the SFI website.³¹

3.9 Budget

The budget requested should be appropriate to the proposed work and should take into account the applicant's experience and recent research funding record. Value for money is explicitly part of the review criteria; applicants are strongly advised to consider the scale of their requests.

The budget requested must be within the Programme limits (see Section 2.1 of the Programme call document). Applications with budget requests outside of these limits will be deemed ineligible.

When preparing the budget, applicants should also take into account the fact that on average, successful female applicants receive smaller grants than male applicants; however, male applicants, on average, request more funding than female applicants. We encourage applicants to consider the above points when preparing their application budgets and associated justification.

SFI funding supports the research programme costs of the applicant(s) and their research group(s). Eligible costs include:

- Contributions to salaries/stipends for staff hired specifically to carry out the research programme. Lead Applicant/Co-Applicant salaries are not eligible costs. Please consult the SFI website for more information on the SFI Grant Budget Policy (GBP).³²
- Relevant research expenses, including equipment, consumables and travel.
- Access charges for use of large items of infrastructure or test-bed facilities may be requested in certain situations; see the SFI GBP for details.

In addition to direct costs, SFI also makes an indirect or overhead **contribution** to the host Research Body, which is reflected as a percentage of the direct costs (excluding equipment). Overheads are payable as a contribution *to the Research Body* for the indirect costs of hosting SFI-funded research programmes and are intended to enable the Research Body to develop internationally competitive research infrastructure and support services. General overheads should not be included in the requested budget and are payable as a contribution to the Research Body for the indirect costs of hosting SFI-funded research programmes.

The costs eligible for grant support by SFI under the SFI Frontiers for the Future Programme are those costs which can, uniquely and unambiguously, be identified with the proposed research programme. Applicants must give details of all relevant costs, including staff, equipment, materials and travel. Ensure that the final total provided includes all costs requested from SFI. Costs which will be covered by industry partners should not be included. All grants are made directly to the Lead Applicant's

³¹ <http://www.sfi.ie/funding/award-management/research-impact/>

³² <http://www.sfi.ie/funding/sfi-policies-and-guidance/budget-finance-related-policies/>

Research Body. Please also refer to the SFI Grant Terms and Conditions³³ and also the GBP (version November 2019).³⁴

Costs that will be covered by industry contributions should not be included in the proposed budget.

See notes for completion of the budget in the SESAME Researcher User Guide³⁵ and within SESAME.

3.9.1 Staff: Salaries and Benefits

SFI Frontiers for the Future Programme grants do not fund the core salary or benefits of either the Lead Applicant or Co-Applicant. Contributions to team-member salaries, fees and stipends for postgraduate students (PhD and MSc by research) may be requested. Salaries for Collaborators are not permitted. All information required to complete the Staff section of the SFI Frontiers for the Future Programme budget can be found in Section 4.1 of the GBP (version November 2019)³⁴ and the associated SFI Grants Team Member Budgeting Scale (version January 2019).³⁶ Please note that the submission of an application by the host Research Body must only take place once salaries requested have been approved by the relevant Research Office(s).

3.9.2 Teaching buyout after eligible leave

In order to support enhanced focus on research activities following periods of leave (see eligibility criteria below), successful applicants will be entitled to request funding for teaching buyout of up to 50% of their teaching load for a period of up to 12 months for Frontiers for the Future Projects or 24 months for Frontiers for the Future Awards from the start date of their grant. **Such requests must be made at the proposal stage** and should be included in the requested budget and detailed in the budget justification. Requests for teaching buyout post receipt of the application will not be considered by SFI.

Any applicant who has taken consecutive documented eligible leave (minimum 12 weeks) since 1st January 2012 and has since returned to work is eligible to request funding for teaching buyout. This can include, but is not limited to, the examples below:

- Statutory adoptive leave
- Statutory parental leave
- Statutory maternity leave
- Statutory paternity leave
- Carer's leave
- Long-term medical illness leave
- Conscription

Or

³³ <http://www.sfi.ie/funding/sfi-policies-and-guidance/sfi-general-terms-and-conditions/>

³⁴ <http://www.sfi.ie/funding/sfi-policies-and-guidance/budget-finance-related-policies/>

³⁵ <http://www.sfi.ie/funding/award-management-system/>

³⁶ <https://www.sfi.ie/funding/sfi-policies-and-guidance/budget-finance-related-policies/FINAL-SFI-Team-Member-Salary-Scales.pdf>

- Academic staff who have returned to an academic position having worked for a minimum of two years in a science- or engineering-related industry.

If an application is successful, applicants applying for eligible leave must provide SFI with a short statement detailing their eligibility for teaching buyout, and the start and end dates of their eligible leave, if applicable. In addition, applicants must also produce documentary evidence of their eligibility from their host institution's Human Resources (HR) Department or, where applicable, the HR Department of their employer at the time of their eligible leave period(s). This documentary evidence must be submitted before a letter of offer can be issued.

Teaching buyout costs should be calculated on the basis of hiring a temporary lecturer (e.g. at point 1 on the Assistant Lecturer salary scale, or equivalent point on the institutional scale) regardless of the seniority of the prospective applicant. Requests must be pro-rata and proportional to the time commitment.

Applicants who have previously received funding for teaching buyout from SFI (SFI Industry Fellowship, SFI Investigators Programme PICA, ICA) are not eligible to apply for teaching buyout a second time.

3.9.3 Equipment

All information required to complete the Equipment section of the SFI Frontiers for the Future Programme budget can be found in Section 4.2 of the GBP (version November 2019).³⁷

3.9.4 Materials and Consumables

All information required to complete the Materials and Consumables section of the SFI Frontiers for the Future Programme budget can be found in Section 4.3 of the GBP (version November 2019).³⁷⁷

3.9.5 Travel

All information required to complete the Travel section of the SFI Frontiers for the Future Programme budget can be found in Section 4.4 of the GBP (version November 2019).³⁷⁷

3.9.6 Ineligible Costs

Under the SFI Frontiers for the Future Programme, lead PI/co-PI salaries are not eligible costs. Information regarding ineligible costs can be found in Section 5 of the GBP (version November 2019).³⁷⁷

3.9.7 Budget Justification (upload, max. 3 pages)

All information required to complete the Budget Justification can be found in Section 7 of the GBP (version November 2019).³⁷⁷

If cash and/or in-kind industry contributions have been agreed, provide details and describe how they complement the requested budget from SFI. Similarly, provide details of cash and/or in-kind

³⁷ <https://www.sfi.ie/funding/sfi-policies-and-guidance/budget-finance-related-policies/>

contributions from International Academic Collaborators. Costs that will be covered through leveraging of funds from Industry or Academic Collaborators should not be included in the proposed budget.

Clear indication should be given where funding is apportioned to Collaborators. Please note that Collaborators outside the Republic of Ireland or those not located within eligible Research Bodies in the Republic of Ireland are not eligible to receive funding through the SFI Frontiers for the Future Programme.

3.10 Infrastructure and Services Provided by Research Body (upload; max. 1 page)

The Applicant(s) must describe the infrastructure, facilities and space to be provided by the Research Body/Bodies. This should include details of the office, laboratory, computing, animal or other facilities as necessary, where the research will be carried out, including all of the equipment that will be available, but excluding equipment requested in this application. Indicate what IP/technology transfer services are provided by the Research Body.

3.11 Letter(s) of Support (uploads; max. 2 pages for each letter)

The following letter(s) of support **must** be included at proposal stage:

- A letter of support from the **host Research Body of the Lead Applicant**. The Letter of Support should detail the employment status of the applicant(s), including how the applicant(s) meet the eligibility criteria for this call as detailed in Section 2.4. The letter should also comment on the infrastructure and services available and should contain a brief description of the institutional policy regarding the management of conflicts of interest (see Section 6 for details). If a Co-Applicant is based in the same Research Body as the Lead Applicant, a single letter of support providing details of both applicants is sufficient. This is a formal letter on headed notepaper and is signed by an authorised institutional representative.
- A letter of support from the **host Research Body of the Co-Applicant (if different from the Research Body of the Lead Applicant)**. The details of the letter should be as outlined above.
- A letter of support (max 2 pages) from **each Academic and Industry Collaborator, and Mentor (if applicable)**. Letters from Academic Collaborators should provide full details of the intended intellectual and/or technical input to the proposal. In addition, Academic Collaborators seeking funds through the award must describe how these funds will be utilised. Letters from Industry Collaborators should provide full details of the intended intellectual input and, where relevant, the level of financial (cash, in-kind or both) contribution to the research programme. Similarly, letters of support from International Academic Collaborators should provide details of any cash and/or in-kind contributions. Letters of support that do not originate from officially listed Collaborators will be removed from the proposal, as will letters from listed Collaborators that merely provide theoretical or general support without specifically describing a meaningful and impactful contribution to the proposal. If applicable, a letter of support from the Mentor outlining the support to be offered to the applicant is required. The letter should include a statement outlining how the mentor will provide added value to the proposal, bearing in mind that the applicant is already an independent researcher.

Letters of support may be **a maximum of two pages**; extraneous pages will be removed from the letter and the proposal. Letters of support may not be included from other bodies and individuals who are not Collaborators. Unsolicited letters of support will deem an application ineligible.

3.12 Excluded Reviewers

Awards applicants can select up to three individuals who will be excluded from acting as reviewers of proposals for reasons of competition. This section is not made available to reviewers. Due to the panel nature of the Projects review, selection of excluded reviewers is not possible.

3.13 Consent for Data Usage

To guarantee maximum gender equality, a study in collaboration with a third party (the GRANted consortium – Grant Allocation Disparities from a Gender Perspective, funded by the European Commission) will review possible gender bias in the processes and practices of SFI Frontiers for the Future grant allocations, and analyse its causes. For this study, SFI and a team of external researchers will ask for consent to use data from your application, your CV and data from the evaluation of your application. You will be asked to indicate if you consent to having your data used in this evaluation. SFI and the nominated external researchers ensure the processing and protection of your data in accordance with Regulation (EC) 45/2001.

3.14 Applicant Agreement to Terms and Conditions

It should be noted that submission of an application represents an agreement to SFI Terms and Conditions of Research Grants.³⁸ Applications that fail to comply with the above terms and conditions, or with requirements outlined in this call document, will not be eligible and will be withdrawn without review.

3.15 Research Body Approval

Submissions must be approved by an authorised Research Body representative. In particular, the host Research Body is approving:

- The eligibility of the applicant(s)
- That the applicants have a signed contract of employment in place that covers the duration of the requested Grant and are in receipt of a salary from their host research body or through a grant in their own name (excluding fellowship-type grants)
- That the requested budget, including salaries/stipends, equipment, travel and consumables, is in line with accepted institutional guidelines and appropriate to the intended time commitments
- The availability of infrastructure within the institution, as outlined by the applicant in the research proposal
- That the proposed research programme has not been funded by other sources

³⁸ <http://www.sfi.ie/funding/sfi-policies-and-guidance/sfi-general-terms-and-conditions/>

- That relevant ethical approval has been or will be sought and must be granted prior to the award commencing
- That the relevant licences will be in place at the time of award
- That the details provided in relation to the applicants' research funding history (i.e., current, pending or expired grants, as detailed in the application) are valid and accurate
- That permission from all team members and collaborators has been obtained, such that SFI may receive their personal information, and may process such data for the purpose of peer review.

Submission of an application through SESAME serves as the Research Body's endorsement of the eligibility of the Applicant(s) as well as approval of the budget requested, the infrastructure to be provided by the Research Body, and furthermore, confirms the validity and accuracy of the details provided in relation to the current, pending and expired grants as detailed in the application.

3.16 Proposal Submission

A PDF of the proposal is available in SESAME and should be reviewed prior to submission to enable validation of an application. The responsibility for verifying that the proposal is ready for submission lies with the Applicant(s) in this regard. A submission is made initially to the Research Office of the Lead Applicant for approval, prior to final submission by the Research Office to SFI.

Please note that the Co-Applicant and/or the Lead Applicant may choose to complete sections or upload documentation that are common to both applicants (e.g., scientific summaries, research descriptions, etc.); **however, only the Lead Applicant can submit an application to the Research Body.**

Please contact the Research Office well in advance in order to become familiar with any internal Research Body submission deadlines.

After the submission deadline for Projects, applications will not be accepted by SESAME. Therefore, they will not be reviewed by SFI.

Applicants will receive a notification from SESAME periodically when the status of their proposal changes. Alternatively, the status of a proposal (e.g., where a proposal is pending Research Office approval or is under review at SFI) is displayed in SESAME.

3.17 Proposal Checklist

PROPOSAL CHECKLIST		
SECTION	DESCRIPTION	REQUIREMENTS
Proposal Summary	Title	Up to 30 words
	Duration of Award Requested	Projects: 24, 36 or 48 months Awards: 48 or 60 months
Resubmission	Resubmission statement (if relevant).	Max. 1000 words
Research Alignment	Priority Area and Alignment	Select from list
	Justification of alignment with SFI's Legal Remit	Max. 250 words
Lead Applicant details	Complete mandatory SESAME Profile information	Mandatory profile fields marked in red
	ORCID iD	Link SESAME profile to ORCID iD
	Percentage Time Commitment	Insert time commitment
	DORA-Compliant CV	Max. 5 pages (use template provided)
	Indicate if applying under the Emerging Investigator category	Selected Yes or No
	Emerging Investigator: copies of relevant supporting docs	Applicants applying under the Emerging Investigator category should provide a statement detailing how they are eligible to apply under the category and scanned copies of supporting documents detailing periods of leave or time spent in industry, where relevant.
	Supervisory Experience	Enter details
Co-Applicant details	Complete mandatory SESAME Profile information	Mandatory profile fields marked in red
	ORCID iD	Link SESAME profile to ORCID iD
	Percentage Time Commitment	Insert time commitment
	DORA-Compliant CV	Max. 5 pages (use template provided)
	Supervisory Experience	Enter details
	Research Funding History	Enter details
Collaborator(s) details	Name/Contact details etc.	Add contact name, details etc.
	CV for each collaborator (SFI recommends using the 2 page DORA-compliant template provided) Letters of support also required (see section below)	Upload CVs (max. 2 pages)
Mentor Details, where applicable	Name/Contact details etc.	Add contact name, details etc.
	CV for mentor (SFI recommends using the 2 page template provided) Letter of support also required (see section below)	Upload Mentor CV (max. 2 pages)
Main Body of Proposal	Keywords	Max. 15 words
	Scientific Abstract	Max. 200 words

	Lay Abstract	Max. 100 words
Ethical Issues	Answer questions regarding ethical issues (Use of Animals, Research involving Human Participants, Biological Material or Identifiable Data)	Select relevant answers
Sex & Gender Dimension in Research	Sex & Gender Dimension in Research Statement	Max. 1000 words
Programme Documents	Research Programme	Projects: Max. 8 pages Awards: Max. 15 pages
	References	Max. 5 pages
	Impact Statement	Max. 3 pages
Budget	Details of all relevant costs	Budget Table in SESAME
	Upload the budget justification	Max. 3 pages
Infrastructure and Services Provided by Research Body	Description of the infrastructure, facilities, services and space provided by Research Body	Max. 1 page
Letter(s) of Support	Collaborators (Academic and industry)	Max. 2 pages
	Host Research Body of the Lead Applicant	Max. 2 pages
	Host Research Body of Co-Applicant(s) if in a different Research Body	Max. 2 pages
	Mentor, if applicable	Max. 2 pages
Excluded Reviewers	Up to three individuals may be excluded from reviewing the proposal (Awards only)	

4 Review Process

SFI is a signatory to the San Francisco Declaration of Research Assessment (DORA).³⁹ As such, SFI is aligning its review and evaluation processes with DORA principles. To this end, all types of research output are recognised by SFI and we are committed to assessing the quality and impact of research through means other than journal impact factors. SFI has developed a DORA-compliant CV template to assist with compliance to DORA principles. Furthermore, in the spirit of supporting open research and as a signatory of Plan S,⁴⁰ SFI will positively consider where there is a commitment to making data and other types of research open and accessible.

³⁹ <https://sfdora.org/read/>

⁴⁰ <https://www.coalition-s.org/>

All proposals will be assessed by international peer reviewers under the review criteria described below. These criteria will be applied at each stage of the review process.

- **Quality, significance and relevance of the applicant's and co-applicant's (if relevant) key achievements and research track record, commensurate with their career stage and research discipline, taking any periods of leave into account and considering the quality and relevance of the collaborators and/or mentor, if relevant. ***

The following areas will be considered: 1) Generation of Knowledge, 2) Development of Individuals and Collaboration, 3) Supporting Broader Society & the Economy and, 4) Supporting the Research Community.⁴¹

- **Quality, significance, novelty, and strategic relevance of the research plan**
Including importance, timeliness of the proposed research; quality of institutional support; communication and description of the research; comprehension of the current state of the art; value for money, the sex and gender dimension, etc.
- **Potential impact and value to Ireland ****
Including appreciation of how research may be developed and exploited in the medium-to-long term; realistic and convincing evaluation of the benefits that will result from a successful project; areas and fields where impacts are likely to be made etc.

* For the Emerging Investigator category, weighting of the review scores will mean that there is increased emphasis on the quality of the research over the track record (see Appendix A for details).

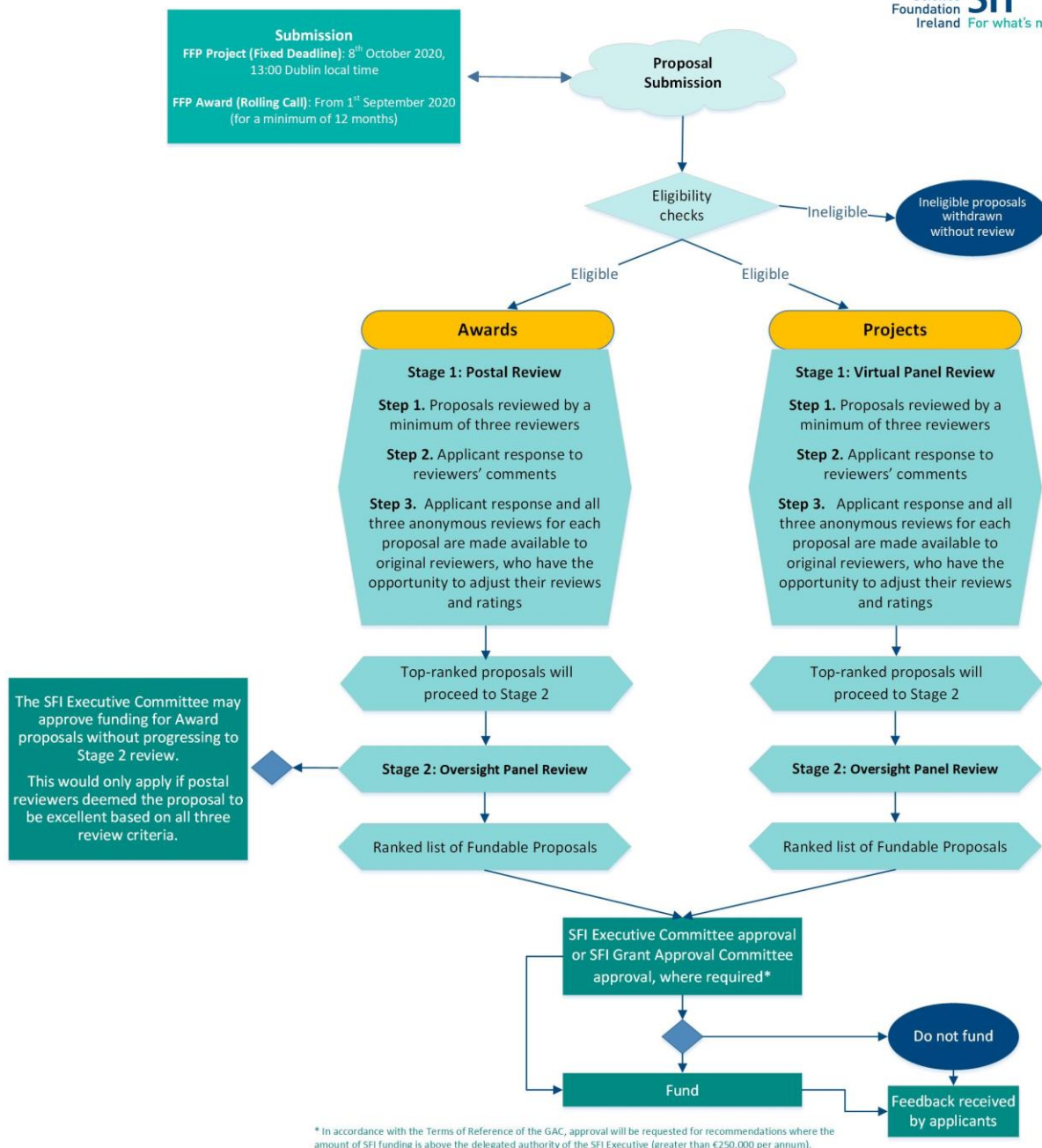
**The weighting of the review scores will mean that there is decreased emphasis on the impact criterion for SFI Frontiers for the Future Programme Projects, compared to Awards (see Appendix A for details).

Reviewers engaged by SFI are required to abide by the SFI Reviewer Code of Conduct.⁴² The submission of an application to SFI shall be construed as consent by the applicant(s) to participate in the peer-review process. SFI reserves the right to return applications without **review where they do not meet the eligibility criteria**. A schematic of the review process is provided below. Full details on the review process are provided in Appendix A.

⁴¹ Examples are provided in the Applicant CV template, which is available on the Programme webpage.

⁴² <https://www.sfi.ie/funding/sfi-policies-and-guidance/review/>

SFI Frontiers for the Future Programme 2020



Other Review Information

The identity of international experts who conduct reviews shall remain confidential and will not be disclosed to the applicants. SFI shall not be liable for the release of information concerning proposals to third parties by those international peer reviewers involved in the merit review process.

SFI reserves the right to modify the review process. Applicants will be notified of any relevant modification to the review procedure. The final funding decisions are at the sole and exclusive discretion of SFI.

Pre-award site visits, conducted by SFI staff, to examine infrastructure may take place, where appropriate. The performance of applicants on previous SFI grants, as determined through site visits and/or annual reports, will be taken into consideration in the decision-making process. **The final funding decisions are at the sole and exclusive discretion of SFI.**

Please note that successful applicants will be required to submit a **Data Management Plan** (see Section 6 for further guidance) along with a description of how they plan to disseminate their research and ensure that the outputs of this research programme are openly available. This must be submitted on or before the due date of the year 1 annual report.

5 Project/Award Management

5.1 Reporting Requirements

The State has made a significant investment via SFI into scientific research and as such, it is the responsibility of SFI to monitor the progress and outcomes of all funding it administers. All SFI grant holders are required to report on outputs and impacts arising from their research programme for the duration of their award and for up to five years after the award end (close) date. The progress reporting requirements for awards made under the SFI Frontiers for the Future Programme include the completion of an Annual Report, SFI Research Outputs (formerly referred to as the SFI Census) and a Researcher Snapshot. The annual report is used to monitor the progress of individual awards against the overall objectives of the SFI Frontiers for the Future Programme and associated Key Performance Indicators (KPIs). Each of the SFI Frontiers for the Future Programme call objectives, with expected outputs, is discussed in turn below:

Objective: *To build research capacity, expertise and reputation through funding excellent scientific research*

Expected Outcomes: The SFI Frontiers for the Future Programme will establish research funding for independent researchers at mid- and advanced career stages. Funding will be used to support the hiring of postdoctoral researchers and PhD students. Research capacity will be assessed through the reporting of the number of team members in each awarded project. Awardees will be asked to report on the level of training received and the research outputs from each team member, thus enabling the level of expertise to be assessed. Reputation will be assessed through a combination of research outputs, in particular, presentations at international conferences, hosting of workshops, winning of prizes etc.

Objective: *To fund highly innovative Awards with strong potential for impact and to provide the opportunity to conduct high-risk, high-reward Projects*

Expected Outcomes: The review process for the SFI Frontiers for the Future Programme references both scientific excellence and impact. In the Strategic Impact section of the annual report, awardees are provided with a list of impact statements or declarations and are asked to prioritise those that are relevant to the outputs on their award/project. Narrative must then be provided with additional details justifying the options chosen, with cross reference to relevant metrics included in the Research Profile. These data will help towards quantifying the types of impacts arising from the awards SFI has made under the SFI Frontiers for the Future Programme 2020 call.

Objective: *To retain and improve Ireland's reputation as a place to carry out excellent research*

Expected Outcomes: To date, SFI funding has produced high-quality, high-impact publications that have resulted in Ireland rising to the top 20 in international bibliometric rankings of repute. SFI's expectation is that the grants made in the SFI Frontiers for the Future Programme will contribute

significantly to this objective. Awardees are asked to report on all refereed journal and conference publications and international presentations directly supported by the grant. This support must be acknowledged in all publications.

Objective: *To provide additional supports for excellent female researchers to secure funding*

Expected Outcomes: An objective of the SFI Frontiers for the Future Programme is to enable an increase in the number of female SFI award holders. Since success rates for female applicants are on par with male applicants, SFI aims to increase the number of female applications as a percentage of the total number of applications to this funding call compared with those levels seen previously.

Objective: *To facilitate researchers based in Ireland to lead consortia and to win further support through various non-Exchequer funding schemes*

Expected Outcomes: SFI expects that researchers based in Ireland will obtain research funding from as wide a range of sources as possible. SFI's expectation is that awards made under the SFI Frontiers for the Future Programme will provide the support necessary for awardees to build capacity, expertise and relationships to a point where they can compete successfully for funding in Europe, including Horizon Europe and the European Research Council (ERC). In their annual report, awardees are asked to report on the funding opportunities that they have pursued and won and also to report on the position held by the awardee. This will allow SFI to track this progress on an annual basis.

Objective: *To allow Ireland-based researchers to win top-tier international prizes*

Expected Outcomes: SFI's expectation is that awards made under the SFI Frontiers for the Future Programme contribute to the potential of Ireland-based researchers to win top-tier international prizes. In the academic outputs section of the annual report, awardees are asked to report on all prestigious prizes or awards received during the reporting period.

Objective: *To develop an integrated research ecosystem through partnerships with other agencies*

Expected Outcomes: The SFI Frontiers for the Future Programme 2020 call includes a co-funding partnership between SFI and the Geological Survey of Ireland (GSI) based on alignments to research topics that are of particular significance to GSI's research objectives. Where relevant, successful applicants will be asked to report on the outcomes of the partnerships, for example through joint publications.

Objective: *To support relevant collaborations and partnerships*

Expected Outcomes: In the Strategic Impact section of the report, awardees are asked to enter details of any relevant collaborations. A key objective of the SFI Frontiers for the Future Programme is to foster and support these collaborations and, as such, it is SFI's expectation that SFI Frontiers for the Future Programme awardees will have the capacity to develop such relationships.

Objective: *To support researchers returning to active academic research after a period of eligible leave through the Emerging Investigators component of the call*

Expected Outcomes: Applicants to the SFI Frontiers for the Future Programme call may choose to be evaluated under the Emerging Investigator category. Awardees under this category are asked to report on progress in the same way as other awardees using the same annual report template. In the annual report, the awardees under the Emerging Investigators category must emphasise how their grant has enabled them to advance their academic career following a period of eligible leave.

These reporting guidelines are relevant to *all* awards made under the SFI Frontiers for the Future Programme. All awardees carrying out projects that are relevant to the co-funding partner agencies are encouraged to update their Research Profiles in order to report on any new collaborations and

joint funding applications or awards that are relevant to the programmatic and/or partnership objectives of the SFI Frontiers for the Future Programme.

5.2 Progress Reviews

SFI Frontiers for the Future Programme Awards and selected SFI Frontiers for the Future Programme Projects will be subject to a progress review in the form of a site visit conducted by international peer reviewers during the period of the grant. These progress reviews are typically held at the midway point on the award and may be attended by representatives from the co-funding partner agencies. The review panel, which comprises two to three international subject matter experts, will be asked to review the progress and direction of the research, the quality of the team (including gender balance) and partnerships, the management of the budget and progress towards generating impact. In relation to the latter, the panel will be guided to review progress against the impact statement provided by the applicant(s) in their original proposal. Site visits will also involve a data provenance review, where a dataset will be reviewed in the context of experimental design, data capture, analysis, storage and curation. The research team will also be assessed on matters concerning training, mentoring and supervision. The outcome of the review will be taken into consideration in the assessment of future applications made to SFI. As stated in the SFI General Terms and Conditions,⁴³ SFI reserves the right to terminate a grant if, in the reasonable opinion of SFI, progress is not deemed to be satisfactory.

6 SFI's Policies and Positions

In addition to complying with SFI's Grant General Terms & Conditions, applicants are expected to be familiar and consult with SFI policies/positions and with all relevant national policies when preparing their application to any SFI programme. The following is a non-exclusive list of relevant policies; it should be noted that these are reviewed and updated from time to time:

Clinical Trials

Clinical trials and investigations requiring approval by the Health Products Regulatory Authority (HPRA) will not be permitted through the SFI Frontiers for the Future Programme. Funding requests for early stage research involving human volunteers and/or human samples that does not require regulatory approval are permitted. Where there is any doubt, applicants are advised to contact the HPRA prior to submission to ensure eligibility and are required to indicate in their application that the proposed study does not require HPRA approval. **SFI's Clinical Trial and Clinical Investigation Policy**,⁴⁴ is available on the SFI webpage.

Animal Usage

Applicants intending to use animals in their research projects are obliged to comply with the **SFI Use of Animals in Research Policy**⁴⁵ and should also ensure that their studies are in line with the HRPAs position on the use of animals in research.

Research Integrity

⁴³ <http://www.sfi.ie/funding/sfi-policies-and-guidance/sfi-general-terms-and-conditions/>

⁴⁴ <http://www.sfi.ie/funding/sfi-policies-and-guidance/ethical-and-scientific-issues/>

⁴⁵ http://www.sfi.ie/resources/SFI-Policy-on-the-Use-of-Animals-in-Research_June_2016.pdf

SFI places paramount importance on ensuring that the highest standards of research integrity underpin all aspects of the research that it supports. To this end, SFI endorses the **National Policy Statement on Ensuring Research Integrity in Ireland**;⁴⁶ that is, all institutions and SFI award holders are expected to abide by this policy statement and the **European Code of Conduct for Research Integrity**.⁴⁷

Doctoral Education

For postgraduate students funded by SFI, the host Research Body is expected to adopt the principles, standards and good practice for doctoral education as described in the **National Framework for Doctoral Education (2015)**,⁴⁸ which SFI has endorsed.

Intellectual Property Management

Intellectual Property (IP) should be managed according to the policies set out in the Government publication: **Ireland's National IP Protocol 2019**.⁴⁹ The IP arrangements are the responsibility of the Research Body and shall reflect the collaborative nature of the project, the level of cash and in-kind commitment made by the Industry Partner and compliance with State Aid Regulations.

Gender Strategy

Research should fully consider potential biological sex and socio-cultural gender dimensions as key analytical and explanatory variables. As articulated in the **SFI Gender Strategy (Strand 3: Integrating Gender in Research and Innovation)**,⁵⁰ applicants are advised to demonstrate that they have considered any potential sex/gender aspects in their proposed research programme.

The strategy also sets out a target for 30% of SFI's portfolio of award holders to be female and for research teams to be composed of at least 40% of each gender by 2020. As such, applicants should consider how these targets can be achieved at all levels of the research team.

Maternity Supplement

SFI is committed to removing and mitigating any existing or perceived factors that may limit the participation of women in Science, Technology, Engineering and Mathematics (STEM) careers. SFI invites its award holders to apply for a supplemental discretionary allowance to support their SFI funded award when either an SFI Awardee or a team member, including PhD students funded on an SFI award takes a period of maternity or adoptive leave.⁵¹

Appeals Process

⁴⁶ https://www.iaa.ie/wp-content/uploads/2019/08/IUA_Research_Integrity_in_Ireland_Report_2019.pdf

⁴⁷ http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf

⁴⁸ http://hea.ie/assets/uploads/2017/04/national_framework_for_doctoral_education_0.pdf

⁴⁹ <http://www.sfi.ie/funding/sfi-policies-and-guidance/national-policies-sfi-positions/>

⁵⁰ <https://www.sfi.ie/funding/sfi-policies-and-guidance/gender/>

⁵¹ <https://www.sfi.ie/funding/sfi-policies-and-guidance/gender/>

This policy establishes procedures and responsibilities for the appeal of the declination of a proposal by SFI.⁵²

State aid

All SFI funding granted under this call will be subject to, and must be compliant with, State aid law. As such, proposals must be designed to ensure that any funding received from SFI does not, directly or indirectly, give rise to the granting of State aid. Potential applicants are referred to the guidance provided by the European Commission in Section 2 of its **2014 Framework for State aid for research and development and innovation (2014/C 198/01)**⁵³ and that which has been developed by Knowledge Transfer Ireland.⁵⁴ If in any doubt as to the interpretation or application of this guidance, potential applicants are advised to seek independent legal advice.

Child Protection

Where relevant, applicants and Research Bodies are required to comply with the provisions of the **Children First Act 2015**,⁵⁵ and the **National Guidance for the Protection and Welfare of Children 2017**.⁵⁶ It is the responsibility of the Research Body to ensure that they are compliant with all applicable law.

Data Protection Policy

The General Data Protection Regulation⁵⁷ is a legal framework that sets out guidelines for the collection and processing of personal information of individuals within the European Union. Applicants are advised that they must be compliant with this regulation if they collect or process personal data.

SFI may collect, use and disclose personal data provided in the application and/or otherwise obtained under, or in connection with, the application for processing the submission, for the performance of its statutory powers and functions, and for the general activities of SFI. Further details regarding SFI's collection, use and disclosure of personal data, and the rights of individuals with respect to any personal data held by SFI, are available in the **SFI Privacy Statement**.⁵⁸

During peer-review procedures, information may be sent to external experts in countries outside of the European Economic Area, including countries that are not recognised by the European Commission as having adequate data protection laws. By submitting an application to SFI, the Research Body and members of the Research Team are agreeing that they consent to the processing and transfer of personal information in this way.

⁵² <http://www.sfi.ie/funding/sfi-policies-and-guidance/review/>

⁵³ [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0627\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0627(01)&from=EN)

⁵⁴ <https://www.knowledgetransferireland.com/Model-Agreements/Practical-Guides/Practical-Guide-to-State-Aid-Considerations-in-Research-Development-and-Innovation-for-RPOs-and-Industry.pdf>

⁵⁵ <http://www.irishstatutebook.ie/eli/2015/act/36/enacted/en/pdf>

⁵⁶ http://www.tusla.ie/uploads/content/Children_First_National_Guidance_2017.pdf

⁵⁷ <https://www.dataprotection.ie/docs/GDPR/1623.htm>

⁵⁸ <http://www.sfi.ie/privacy/>

During the application process or at any time thereafter, SFI may contact the Research Body, the Principal Investigator, or any member of the Research Team with regard to funding opportunities, activities or events organised by SFI or other relevant bodies, or for the purposes of monitoring and evaluation (including, but not limited to, the collection of scientific data or data relating to the application process). SFI may choose to authorise a third party to contact the Research Body, the Principal Investigator or any member of the Research Team on its behalf.

Conflict of Interest

SFI recognises that applicants may have a prior relationship with an industry partner engaged in an application for funding to SFI (e.g., industry consultancy role, founder of an academic spin-out company) which may be perceived as a conflict of interest. Where a potential conflict of interest exists, SFI requires that it is disclosed by the applicant to SFI and their Research Body and that any such situations are managed by the Research Body in accordance with the principles and mandates laid out in **Ireland's National IP Protocol 2019**.⁵⁹

Open access

In line with the principles espoused by Plan S⁶⁰ and those of the National Framework on the Transition to an Open Research Environment⁶¹ SFI is committed to ensuring that all publicly funded research articles are openly available. Where a research publication arises in whole or in part from SFI funded research (i.e. where one or other of the researchers concerned receives SFI funds in support of their endeavours), **SFI's Open Access policy**⁶² should be adhered to. SFI monitors compliance with this policy through scientific and financial reporting, financial audits and its Annual Stocktake of Research Outputs.

Data Management

Good data governance and stewardship are key components of good research practice. Science Foundation Ireland is part of an initiative for the voluntary international alignment of research data management policies.⁶³ Applicants may find it helpful to consult with this and Science Europe's framework for discipline-specific research data management if preparing a data management plan as part of their application for funding to SFI.⁶⁴ Applicants should review individual programme funding call requirements regarding data management plans and timelines as to when they are required to be submitted.

Current SFI policies and positions will be reviewed on a regular basis; applicants are advised to consult the policy information in advance of submission of a proposal.

⁵⁹ <http://www.sfi.ie/funding/sfi-policies-and-guidance/national-policies-sfi-positions/>

⁶⁰ <https://www.coalition-s.org/principles-and-implementation/>

⁶¹ <http://norf-ireland.net/>

⁶² <https://www.sfi.ie/funding/sfi-policies-and-guidance/open-research/SFIs-Open-Access-Policy-2019.pdf>

⁶³ <https://www.scienceeurope.org/our-resources/practical-guide-to-the-international-alignment-of-research-data-management/>

⁶⁴ <https://www.scienceeurope.org/our-resources/guidance-document-presenting-a-framework-for-discipline-specific-research-data-management/>

7 Further Information

All information related to the SFI Frontiers for the Future Programme is available on the programme webpage:

<http://www.sfi.ie/funding/funding-calls/frontiers-for-the-future/>

For all additional queries please contact: FFP@sfi.ie

Appendix A: SFI Frontiers for the Future Programme Review Process

The review criteria detailed in Section 4 will be applied at all stages of the review process. In addition, a weighting and scoring system will be applied.

Score Weighting System:

Awards

Review Criteria	Applicants	Emerging Investigator Applicants
Applicants	30%	10%
Research Proposal	40%	60%
Impact	30%	30%
Total	100%	100%

Projects

Review Criteria	Applicants	Emerging Investigator Applicants
Applicants	30%	10%
Research Proposal	55%	75%
Impact	15%	15%
Total	100%	100%

For the Emerging Investigator category, weighting of the review scores will mean that there is increased emphasis on the quality of the research over the track record. Furthermore, due to the high-risk, high reward nature of the Projects, the weighting of the review scores will mean that there is decreased emphasis on the impact criterion for SFI Frontiers for the Future Programme Projects, compared to Awards.

Weighted scores will be rounded to the nearest half point.⁶⁵ When ranking applications, in the event of applications receiving the same final score, SFI will give priority in the review process to applications from female lead applicants. Further ties will be decided based on the quality of the proposed research. If additional tiebreakers are required, SFI will inform applicants what these tiebreakers are.

SFI Frontiers for the Future Programme Review Process

All proposals submitted to the SFI Frontiers for the Future Programme will be assessed for eligibility and proposals meeting the eligibility requirements will be reviewed as outlined below.

⁶⁵ SFI reserves the right to adjust this rounding based on the number of applications received. Applicants will be made aware of any changes to the review process.

Stage 1: Review

Step 1. All proposals will be forwarded to a minimum of three distinguished international peer reviewers for written evaluation and rating under the review criteria outlined below. A copy of the review form is provided in the table below.

- SFI Frontiers for the Future Programme Awards will be evaluated by expert international **‘postal reviewers’**, where the reviewers are selected based on the alignment of his/her expertise with the content of the proposal; a postal reviewer is asked to review one proposal only;
- SFI Frontiers for the Future Programme Projects will be reviewed by a **‘virtual panel’** comprised of a large number of international reviewers; where each member of the virtual panel receives a number of proposals, typically six, to review. The virtual panels are therefore, more generalist in nature and reviewers may not be experts in the exact subject area of all the proposals which have been assigned to them.

Review Type	SFI Frontiers for the Future Programme Awards (postal review) SFI Frontiers for the Future Programme Awards (virtual panel review)
Review Questions	<p>Question pertaining to Applicant(s)</p> <p>SFI is a signatory of the San Francisco Declaration of Research Assessment (DORA)⁶⁶. As such, SFI is aligning its review and evaluation processes with DORA principles. To this end, all types of research output are recognised by SFI and we are committed to assessing the quality and impact of research through means other than journal impact factors. Furthermore, in the spirit of supporting open research and as a signatory of Plan S,⁶⁷ SFI will positively consider where there is a commitment to making data and other types of research open and accessible. Please take these positions into account during your assessment of the DORA-compliant CV(s) submitted by the applicant(s).</p> <p>Please comment on the quality, significance and relevance of the applicant’s and co-applicant’s (if relevant) key achievements and research track record as demonstrated in the CV(s), commensurate with their career stage and research discipline, taking any periods of leave into account. Please include in your review comments how the applicant(s) has addressed each of the following areas:</p> <ol style="list-style-type: none"> 1) Generation of Knowledge, 2) Development of Individuals and Collaborations, 3) Supporting Broader Society & the Economy and, 4) Supporting the Research Community.

⁶⁶ <https://sfdora.org/read/>

⁶⁷ <https://www.coalition-s.org/>

With your review, please also consider whether the expertise and experience of the lead applicant, co-applicant(s), mentor and collaborator(s), if relevant, are appropriate given their proposed contribution to the research programme.

There are **two stages** to the scoring of the applicant(s):

First, please score the quality, significance and relevance of the applicant's and co-applicant's (if relevant) key achievements and research track record with regard to the individual categories in the CV(s):

- 1) Generation of Knowledge,
- 2) Development of Individuals and Collaborations,
- 3) Supporting Broader Society & the Economy,
- 4) Supporting the Research Community. Half scores are permitted.

- 1 = Applicant(s) not internationally competitive for this category
- 2 = Applicant(s) track record has considerable weaknesses for this category
- 3 = Applicant(s) track record lacking in one or two critical aspects for this category
- 4 = High-quality applicant(s) in nearly all respects for this category
- 5 = Outstanding applicant(s) for this category

Second, taking into account the four categories referred to above, please use your judgement to provide one overall score based on the quality, significance and relevance of the lead applicant's and co-applicant's (if relevant) key achievements and research track record, commensurate with their career stage and research discipline, taking any periods of leave into account. Please consider the quality and relevance of the collaborators and/or mentor, if relevant. This score will be the final score used to assess the applicant(s). Half scores are permitted.

- 1 = Applicant(s) not internationally competitive
- 2 = Applicant(s) track record has considerable weaknesses
- 3 = Applicant(s) track record lacking in one or two critical aspects
- 4 = High-quality applicant(s) in nearly all respects
- 5 = Outstanding applicant(s)

Question pertaining to Research Plan

Please comment on the quality, significance, novelty, and strategic relevance of the research plan. In your assessment, please consider points such as: importance, timeliness of the proposed research; quality of institutional support; communication and description of the research; comprehension of the current state of the art; value for money, the Sex and Gender dimension, etc..

Sex and Gender Dimension in Research

This section should not include information on gender equality, diversity and inclusion in the research team/environment.

- Has the applicant adequately addressed the sex and/or gender dimension/s in their proposal? Yes/No
- If the applicant **has not** included a sex and/or gender dimension/s in their research proposal, are you satisfied that they have justified this position sufficiently? If not, please explain.
- If the applicant **has** included a sex and/or gender dimension/s in their research proposal, is the design/analysis described sufficiently rigorously to test for differences between the sexes and/or genders? If not, please explain.
- If the applicant is only studying one biological sex and/or gender, has the applicant provided sufficient justification with reference to the scientific

	<p>literature, preliminary data, or other relevant consideration in their proposal?</p> <p>Please rate the quality, significance, novelty, and strategic relevance of the research plan, including the Sex and Gender Statement aspects (half scores are permitted)</p> <ul style="list-style-type: none"> • 1 Research proposed is not worthy of funding • 2 Research proposed has serious deficiencies • 3 Research proposed is lacking in one or more critical aspects; key issues need to be addressed • 4 High-quality research programme in most respects • 5 Outstanding research programme in all respects <p>Question pertaining to Impact</p> <p>Please review the Impact Statement prepared by the applicant(s) and comment on the applicant's ability to demonstrate the potential impact and value to Ireland. In your assessment, please consider points such as: Appreciation of how research may be developed and exploited in the medium-to-long term; realistic and convincing evaluation of the benefits that will result from a successful research programme; areas and fields where impacts are likely to be made.</p> <p>Please rate the applicant's ability to demonstrate the potential impact and value to Ireland (half scores are permitted)</p> <ul style="list-style-type: none"> • 1 Very low impact potential • 2 Low impact potential • 3 Good impact potential • 4 High impact potential • 5 Outstanding impact potential <p>Question pertaining to Budget, Team & Project/Award Duration</p> <p>Is the budget appropriate/realistic given the track record of the applicant(s)? Please comment on the appropriateness of the skills, composition and size of the team requested, the appropriateness of the resources requested and award duration.</p> <p>Question pertaining to Ethical Issues</p> <p>Please comment on any ethical issues, particularly related to any aspects of the proposed research that involves animals, human participants, human biological material, or identifiable/potentially identifiable data?</p>
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Step 2. Written reviews received from the international peer reviewers will be collated and forwarded to each applicant. Applicants will then be afforded the opportunity to submit a **response** to the reviewers' comments. Applicants will be given a defined period of time in which to respond (advanced notice of dates and guidelines relating to the response will be indicated to applicants).

Step 3. The applicant response and all three anonymous reviews received for each proposal will be made available to the original reviewers, who will then have the opportunity to adjust their reviews and ratings based on their assessment of the quality of the response.

Applications will be ranked based on the scores received following the Stage 1 review. Top-ranked applications that receive an overall score of 3.5 (70%) or higher will proceed to the Stage 2 oversight panel review. Applicants that receive a final score of less than 3.5 will be informed that their application was unsuccessful and will receive their final score. Applications with a very high standard deviation or vastly deviating reviewer opinions may also be selected to progress to Stage 2. **SFI**

reserves the right to increase the scoring threshold if a surplus of high-quality applications is received.

Stage 2: Oversight Panel Review

An oversight panel involving international reviewers with generalist expertise will be convened to oversee the fairness of the written reviews and the applicant response. Panel reviewers will receive the written reviews, the applicant's response to those reviews and the scores before and after the applicant response was submitted. Panel reviewers will make a funding recommendation and may modify scores where an application is judged to have been treated unfairly and there is sufficient justification and rationale for doing so.

Weighted scores will be rounded to the nearest half point.⁶⁸ The outcome of the panel meeting is a ranked list of applications in a series of bands, and within each band, the ranking will be based first of all on the gender of the lead applicant and second of all on the research programme score (non-weighted). If additional tiebreakers are required, SFI will inform applicants what these tiebreakers are. SFI will fund down the ranked lists until the programme funding is exhausted. Applicants will receive the panel's report and the final score band as feedback.

In the case of Frontiers for the Future Programme Awards only, which are submitted on a rolling call basis, the SFI Executive Committee may approve funding for Award proposals without progressing to Stage 2 review. This would only apply if postal reviewers deemed the proposal to be excellent based on all three review criteria.

⁶⁸ SFI reserves the right to adjust this rounding based on the number of applications received. Applicants will be made aware of any changes to the review process.