



# Draft Outline of Science Foundation Ireland Strategy 2025

(28<sup>th</sup> February 2019)

# Have your say on SFI's new strategy!

## SFI Draft Strategy Outline 2020 – 2025

- The current SFI Strategy, [Agenda2020](#), has served Science Foundation Ireland well. It is now time for a new strategy.
- In developing this new strategy, we have consulted widely with many stakeholders to get ideas on what would best serve Ireland as we look towards 2025. More details are available [here](#).
- We have analysed and synthesised the consultation findings to create a **draft** outline of SFI's new strategy. This a possible direction of travel out to 2025. The strategy outline is not formally approved and is not final.
- On **7<sup>th</sup> March**, SFI is holding a consultation taking the form of an open, online discussion platform, called [SFI Engage](#). SFI Engage is open to everyone.
- The draft outline will be the basis for discussions at SFI Engage.
- During SFI Engage, there will be several discussion streams throughout the day and we encourage you to take part. As this is an online platform, participation can take place from anywhere.
- Please share with your networks. We look forward to engaging with you in lively, constructive conversations about Science Foundation Ireland's direction of travel and about how SFI can best serve Ireland.

# SFI Draft Strategy Outline 2020 – 2025

## (28<sup>th</sup> February 2019)

SFI's Vision: Unlock the potential of Irish science and engineering

SFI's Mission: Invest in talent and ideas which make a positive difference, collaborate, and look to the future

### ENABLING EXCELLENCE

Futureproof the diverse talent & research pipeline for academia, enterprise, and public sector

#### Excellent Talent

- Human Capital for enterprise and others
- STEM education
- Diversity
- Mobility & networks

#### Excellent Ideas

- Applied & basic research
- Strengthen Research Centres
- High-Risk High-Gain

#### Intentional

- Data-informed funding
- Balanced portfolio
- Responsive funding

#### Research Infrastructure

- Infrastructure support

### MAKING A DIFFERENCE

Deliver economic and societal benefit which is recognised and valued

#### Economic & societal benefit

- Knowledge exchange
- Enterprise partnerships
- Research Centres
- Challenge-Based/SDG
- Interdisciplinary & AHSS
- International
- Innovation supports

#### Engagement

- With all stakeholders, especially the public
- Communicate the benefits of research
- Research is accessible to and supported by the public

### STRONGER TOGETHER

Be a collaborative agency within an efficient and effective research ecosystem

#### A trusted & valued funding agency

- Practices, processes, policies, consistency
- Open dialogue
- Effective agency through highly trained staff

#### In an aligned ecosystem

- Easy to partner with
- Influential through a common message
- Irish funding partnerships
- Building international profile of Irish research
- Aligned with H2020 and Horizon Europe

### A BETTER FUTURE

Identify disruptive strategic opportunities & evolve SFI to meet them

#### Transformation

- National agency for challenge-based funding
- New experimental schemes, mechanisms and processes
- Novel international partnerships
- Leveraging capabilities

#### Futurist

- Horizon scan to identify what's next for enterprise and Ireland
- Opinion leaders on national & EU policy
- First mover advantage

# ENABLING EXCELLENCE

**Futureproof the diverse talent & research pipeline for academia, enterprise, and public sector**

By being intentional, deliberate, and responsive in our approach to investing in people, ideas, and infrastructure, Science Foundation Ireland will fill Ireland's ideas and talent pipeline. This will grow Ireland's international reputation as a highly skilled country, and will build a resilient, innovative and sustainable economy and society.

## *Excellent Talent*

Ireland's success depends critically on the people who work here. Research is a human endeavour and the excellence and impact of Ireland's research will be determined by the quality and diversity of its researchers.

Science Foundation Ireland will support and grow a strong, excellent and diversified talent pipeline to “build the scale and depth of research in technology areas of relevance to Ireland for the future<sup>1</sup>”.

## *Being Intentional*

Being intentional underpins talent, ideas, and infrastructure. SFI will invest intentionally in a balanced portfolio, using a data-focused and data driven approach.

## *Excellent Ideas*

Science Foundation Ireland wants to continue to grow the ideas pipeline. We will do this by balancing strong and growing investment in excellent applied research with more future-focused research that will challenge existing areas of science and grow new, knowledge-intensive enterprises. This research is likely to lead to more long-term transformative impact on Ireland.

Through ideas and talent, Science Foundation Ireland will ‘support entrepreneurialism and build competitive clusters in strategic sectors and activities<sup>2</sup>’.

## *Infrastructure*

Research infrastructure is a critical and necessary part of modern research. Many fields of science heavily depend on specialised equipment. SFI aims to provide the necessary research infrastructure to facilitate successful research outcomes.

<sup>1</sup> Project Ireland 2040, National Development Plan 2018-2027, pg 62

<sup>2</sup> Project Ireland 2040, Investing in Business, Enterprise and Innovation, 2018-2027, pg 9

# ENABLING EXCELLENCE

Futureproof the diverse talent & research pipeline for academia, enterprise, and public sector

## Examples of 'Excellent Talent' Initiatives

- Targeted Schemes
  - Programmes for Postgraduate Researcher enrolments<sup>1</sup>
  - Early-career researchers
  - Mid-career researchers
- STEM Education in schools
- International mobility & network building schemes
- Broader eligibility criteria for researchers
- Diversity including gender, regional and career stage
- Recognition for team-member achievements in large awards

## Examples of 'Infrastructure' Initiatives

- Infrastructure support programmes
- National shared infrastructure programme

## Examples of 'Excellent Ideas' Initiatives

- A balanced investment mix to include:
  - Applied research
  - Basic research
  - Strengthen SFI Research Centres<sup>2</sup>
  - High risk, high reward research
- New review processes e.g.
  - Adjustment of review criteria weights
  - Multidisciplinary review process
  - Diversity including gender initiatives

## Examples of 'Being Intentional' Initiatives

- Return on Investment audit on SFI-funded programmes
- Efficient data-capturing techniques and processes
- Responsive to macro-economic issues
- Independent international review of scientific programmes & support activities

<sup>1</sup> Project Ireland 2040, National Development Plan 2018-2027, pg 62

<sup>2</sup> Project Ireland 2040, National Development Plan 2018-2027, pg 60

# MAKING A DIFFERENCE

**Deliver economic and societal benefit which is recognised and valued**

Science Foundation Ireland believes that the research it funds delivers positive change in Ireland and the world. Science Foundation Ireland wants the research it funds to contribute to, and to make a positive difference to, society and the economy. We will support 'realising a significant uplift in the performance of enterprises in terms of innovation, export potential and productivity<sup>1</sup>'.

## ***Economic & societal benefit***

Publicly funded research advances the scientific state of the art and also contributes back into the economy and society. Through its research funding schemes, Science Foundation Ireland will continue to support its funded researchers to maximise the economic and societal benefits of their research for Ireland and the world.

The likelihood of Science Foundation Ireland-funded research making a positive difference is improved by researchers engaging early and often with technology adopters, entrepreneurs, end users, and the public.

## ***Engagement***

Science Foundation Ireland also wants to build deep engagement with its stakeholders, including industry, the public, government and researchers. This deep engagement will ensure that research is valued and that the benefits of research are seen and understood by all stakeholders. This engagement will allow Science Foundation Ireland to better work with its stakeholders.

To enhance the societal relevance of research, we want to increase involvement by the public. We want research to be broadly accessible and relatable.

# MAKING A DIFFERENCE

Deliver economic and societal benefit which is recognised and valued

## Examples of 'Economic & Societal Benefit' Initiatives

- Strengthen SFI Research Centres in strategic sectors<sup>1</sup> including the Spokes Programme
- Enhance Industry fellowships with commercial, and non-commercial State bodies
- By revising SFI review processes, drive researchers to engage early and often with adopters of their outcomes, with entrepreneurs, with regional groups
- Prioritise Challenge-Based Funding
- International partnerships to approach Sustainable Development Goals and other grand challenges
- Collaborate with AHSS to ensure that research outcomes can be brought to society
- Enhance strategic partnerships

## Examples of 'Engagement' Initiatives

- Continue to showcase SFI-funded success stories to all stakeholders
- Grow the Public Engagement Programme and target new audiences
- Strengthen SFI-Centres Public Engagement
- Establish a Citizens Assembly for Science
- Encourage Citizen Research
- Start a Science Advocacy Ambassador programme – SFI stakeholders advocating for science, engineering, and SFI
- Grow a Science Foundation Ireland alumni network

# STRONGER TOGETHER

## Be a collaborative agency within an efficient and effective research ecosystem

‘Research, development and innovation capacity is central to sustaining and building competitiveness in international markets. Therefore, a continuing sharp focus on maintaining and improving standards of research is critical<sup>1</sup>. A strategic approach to research and development across the whole research ecosystem will lead to better performance. Science Foundation Ireland must play its part in this system both by striving for best practice and by working towards an aligned, accessible and sustainable research ecosystem. We will look internally first and make changes. We will also support a better aligned ecosystem.

### *A trusted and valued funding agency*

Science Foundation Ireland is maturing as an organisation and sees itself as having a strong and integral role in the Irish research ecosystem. We will improve how we work, enhance our practices, our organisational culture, our consistency, and engagement with our stakeholders. To be part of an effective research ecosystem, we will become a more system-aware organisation, building trust and collaboration.

### *In an aligned ecosystem*

Science Foundation Ireland is part of a complex national research system. We recognise the importance of collaboration, and of aligning Science Foundation Ireland with the national ecosystem. This will improve ecosystem efficiency and help enterprise and other stakeholders successfully navigate the ecosystem.



# STRONGER TOGETHER

Be a collaborative agency within an efficient and effective research ecosystem

## Examples of 'a trusted and valued funding agency' Initiatives

- Work constructively within the national ecosystem
- Achieve best practice in: consistency and planning; an engaged and valued staff; and internal processes
- Increase transparency, e.g. publish annual reports received from researchers, publish Science Foundation Ireland's operating procedures
- Increase employee satisfaction and motivation through coaching, mentorship, stewardship and continuous development.

## Examples of 'an aligned ecosystem' Initiatives

- Engage with a funding agency partner and work with them to demonstrate vastly increased alignment and synergy
- Grow co-funding Irish agency partnerships
- Champion an aligned planning framework across Irish research ecosystem
- Champion a 'One Grants Management System' across Irish research ecosystem
- Champion the creation of an Irish Research Advisory Council: an independent body influencing, guiding, and supporting the research agenda in Ireland
- One Voice: all system stakeholders advocating the importance of increased investment in research

# A BETTER FUTURE

## Identify disruptive strategic opportunities & evolve SFI to meet them

Ireland's 'future success rests on ensuring our readiness for a changing world and the continued successful development of the knowledge economy<sup>1</sup>. The pace of change globally continues to accelerate, and organisations must plan and adapt accordingly.

### *Futurist*

To ensure that the research Science Foundation Ireland funds remains groundbreaking and transformative for Ireland, Science Foundation Ireland must futureproof research by horizon scanning.

For example, Science Foundation Ireland was funding research into Artificial Intelligence and the 'Internet of Things' ten years before these areas became widespread.

Science Foundation Ireland aims to identify novel areas that will drive future economic and societal progress.

### *Transformation*

Similarly, Science Foundation Ireland must continually reinvent itself in order to evolve and improve its own practices and procedures.

As a small and agile agency, we can run pilot and experimental schemes. These schemes can trial new mechanisms and processes for awarding funding, and better deliver on SFI's strategic objectives.

An innovative and forward-thinking agency will be resilient and attractive to potential partners, both national and international.

# A BETTER FUTURE

## Identify disruptive strategic opportunities & evolve SFI to meet them

### Examples of 'Transformation' Initiatives

- National agency for challenge-based funding
- Step-change in SFI's engagement with all of its stakeholders
- New pilots and experimental schemes to include design thinking, competitive audience-based reviews, disruptive sprints, randomised allocation, etc
- Explore use of AI to support SFI internal decision making processes and to lessen reporting burden on SFI-funded researchers
- Perform SFI programme ROI audit
- Consider new review criteria such as relevance to Ireland

### Examples of 'Futurist' Initiatives

- Invest in people and systems to capture data & evidence to decide what's needed next for Ireland
- Use this evidence to become an opinion-leader in the national research and innovation system, and to fund top-down and thematic funding schemes.
- Alignment with EU and other international roadmaps
- Co-design programmes with researchers and other funding agencies
- Work with futurists to predict long-term trends