

# **ANNUAL PLAN 2017**

## 1. Introduction

## **Science Foundation Ireland Mission and Remit**

Science Foundation Ireland (SFI) funds oriented basic and applied research in the areas of science, technology, engineering, and mathematics (STEM) which promote and assist the development and competitiveness of industry, enterprise and employment in Ireland. The Foundation also promotes and supports the study of, education in and engagement with STEM, and an awareness and understanding of the value of STEM to society and to the growth of the economy. As outlined in Science Foundation Ireland's strategy document, *Agenda 2020*<sup>1</sup>, the Foundation focuses its research funding on scientific excellence, coupled with an equal focus on impact and the potential benefits of the funded research for the Irish economy and society.

Science Foundation Ireland is mandated to fund research predominantly within the areas set out in the recommendations of the *National Research Prioritisation (NRP) Steering Group report*<sup>2</sup>, which was adopted as government policy in 2012. There are fourteen priority areas and six underpinning platform science and technology areas identified in the report and most of Science Foundation Ireland's research funding is directed towards these areas. However, it is acknowledged that research priorities can evolve with time, so in that context Science Foundation Ireland can also fund in previously-unidentified emergent areas of strategic opportunity that have the potential to benefit the State in terms of economic and social development, long term industrial competitiveness or environmentally sustainable development. Science Foundation Ireland also had the mandate to fund research in areas broader than its legal remit where the research is being funded because of a partnership programme between Science Foundation Ireland and an international funding agency. Science Foundation Ireland also has responsibility to deliver against a range of objectives laid out on the national science & technology strategy Innovation 2020 <sup>3</sup>.

## Highlights from 2016: Science Foundation Ireland delivery over the last 12 months

Science Foundation Ireland continued to make great strides in the implementation of its strategy during 2016; as detailed in the *Annual Review of Science Foundation Ireland's Delivery of Agenda* 2020<sup>4</sup>. Key areas of progress over the last 12 months include:

<sup>&</sup>lt;sup>1</sup> SFI Agenda 2020; Published 2012

<sup>&</sup>lt;sup>2</sup> http://www.forfas.ie/publications/featuredpublications/title,8958,en.php

<sup>&</sup>lt;sup>3</sup> Innovation 2020

<sup>&</sup>lt;sup>4</sup> 2016 Review of Agenda 2020

- a) Twenty-nine awards made to outstanding experienced researchers through the SFI Investigators Programme (IvP). These awards included six in collaboration with the Department for the Economy, Northern Ireland and three involving co-funding from the Marine Institute (2), Environmental Protection Agency (1) and Geological Survey of Ireland (1).
- b) Twenty-six awards made to early-to-mid career researchers through the SFI Career Development Award (CDA) programme, and twenty-five awards to early career researchers through the SFI Starting Investigator Research Award (SIRG); 55% of the SIRG awardees were female.
- c) Six awards commenced under the **SFI Research Professorship Programme**, whereby internationally-renowned researchers in strategically-important areas relocated to Irish research institutions; these new hires included two with a manufacturing focus.
- d) Four awards made under the SFI Strategic Partnerships Programme, involving an Science Foundation Ireland funding of >€8M, plus cumulative investment of €8 million from industry partners.
- e) Ten awards made under the SFI-HRB-Wellcome Trust Partnership, including 2 Investigator awards.
- f) Five Royal Society University Research Fellowship (URF) awards funded under the SFI-Royal Society Partnership Scheme.
- g) Ten awards made under the first two calls of the SFI-BBSRC Partnership.
- h) New Science Foundation Ireland international partnerships established with US National Science Foundation (PIRE and ICORPS) and NSF China.
- i) Twelve SFI Research Centres
  - Cumulative Horizon 2020 drawdown over €85 million
  - Marie Curie co-fund success for NUIG (Curam) and TCD (Connect, Amber, Adapt)
  - €40 million in committed cash co-fund from 394 industry contracts
- j) Five awards were offered through the SFI Research Centres Spokes Programme, involving €17 million funding from Science Foundation Ireland, with €8 million co-funding from almost 30 industry partners.
- **k)** Forty-four awards were made through **SFI Discover Programme** totalling €2.8 million supporting the education and engagement of the Irish public in STEM.

# 2. Science Foundation Ireland's strategy in 2017

Science Foundation Ireland as an organisation will focus on seven areas of strategic delivery in 2017, as described below.

### 1. Excellent Relevant Research, with Impact

Science Foundation Ireland will deliver competitive funding programmes that support excellent researchers produce world class research with the potential to produce significant economic and/or societal impact.

Science Foundation Ireland will also assess and monitor its live awards to ensure that scientific excellence and impact are being delivered in line with the approved programme of research, while also ensuring that the research community and wider public are informed of the successful impact of the publicly-funded research.

#### 2. SFI Research Centres

Science Foundation Ireland will continue to develop world-class, large scale SFI Research Centres, that are co-funded by industry, and focused on areas where Ireland has key strengths and where there are strategic opportunities of significant economic and societal importance to country.

## 3. Industry and Entrepreneurship

Science Foundation Ireland will deliver funding programmes that facilitate Ireland's top researchers to develop strong mutually-beneficial co-funded partnerships with industry, while also stimulating research groups to further diversify their non-state funding stream to include VC firms, philanthropy, charitable foundations, etc.

Science Foundation Ireland will run programmes that support the development of a stronger culture of entrepreneurship and capacity to commercialise research outputs among the research community.

# 4. International & National Partnership

Science Foundation Ireland will support Irish researchers to lead and participate in major research consortia in Europe and win funding from Horizon 2020.

Science Foundation Ireland will stimulate collaboration between Irish and international researchers by engaging in partnerships with international funding agencies in strategically

important countries - in particular, US, UK (& NI) and China - as well as developing co-funding partnerships with Irish funders.

#### 5. Talent & Skills

Science Foundation Ireland through its range of funding programmes will continue to support Ireland's STEM researchers, across all career stages, to develop their skills and experience with the aim of having successful careers as independently-funded academic research leaders or equally successful careers in the private sector.

Science Foundation Ireland will ensure that Irish first and second-level students are informed and engaged about STEM in the interest of ensuring more people study STEM subjects at third and fourth-level and pursue STEM careers, reflective of national talent needs.

### 6. Public Engagement

Science Foundation Ireland will ensure that the Irish public is highly engaged in and informed about STEM and its potential to deliver for the Irish economy and society.

Science Foundation Ireland will enable and coordinate the broader stakeholder group, including industry, to play their part in creating the impact needed to fuel our future workforce, particularly in areas of greatest need/potential for Ireland.

## 7. People and Workplace

Science Foundation Ireland will continue to represent the ideal public service organisation by ensuring that staff are motivated to do their best work and develop themselves in a conducive working environment that lends itself to effectiveness, efficiency and team-work

Furthermore, with the aim of delivering on its Innovation 2020 commitments, Science Foundation Ireland will seek the necessary funding to develop new programmes which will be important to maintaining Ireland's international competitiveness and positioning the country as a global research and innovation leader. In 2017, Science Foundation Ireland intends to design and pilot the following new programmes:

- A large-scale PhD programme,
- Ireland's first Challenge-based funding programme for STEM, and
- A new collaborative programme with the UK with a view to further strengthening links and exploiting opportunities arising from Brexit.

# 3. Overview of 2017 Planned Programmes

Science Foundation Ireland proposes to run a range of programmatic calls in 2017 that are closely linked to delivery of the Science Foundation Ireland Strategy Agenda 2020, as outlined in the tables 1-4 below. All Science Foundation Ireland programmes (including those not running in 2017) are synopsised in the <u>Science Foundation Ireland website</u>. All launch dates provided in these tables are indicative and are subject to change, e.g. in response to alterations in Science Foundation Ireland's annual grants budget, staffing resources, other new schemes Science Foundation Ireland may develop and government policy / priorities. Precise deadline dates will be available on the Science Foundation Ireland website in early 2017.

The 2017 Science Foundation Ireland programmes fall into four categories:

- Programmes launched during 2016, where a funding decision will be made in 2017
- Fixed Deadline Calls open in 2017
- Rolling Calls open during 2017
- International Partnerships open in 2017

Table 1. Programmes launched during 2016; funding decision to be made in 2017

Acronym	Programme	Call Deadline	Decision Timeframe		
FRL	SFI President of Ireland Future Research Leaders Award	19-Aug-16 (fp)*	Apr-17		
URF	SFI Royal Society University Research Fellowship	05-Sep-16	May-17		
BIAP	SFI-Pfizer Biotherapeutics Innovation Award Programme	15-Sep-16	Apr-17		
RC	SFI Research Centres 2016	02-Nov-16 (fp)*	Apr-17		
iCORPS	SFI/NSF iCorps@SFI Entrepreneurial Training Programme 2016	04-Nov-16	Feb-17		
IF	SFI Industry Fellowship (Round 2)	02-Dec-16	Apr-17		
IvP	SFI Investigators Programme (IvP)	itors Programme (IvP) 09-Dec-16			
CDA	SFI Career Development Award (CDA)	I Career Development Award (CDA) 22-Mar-17 (fp)*			
PIRE	SFI-NSF-Partnerships for International Research and Education	24-Apr-17 (fp)*	Q3 2017		
* where Full Proposal (fp) deadline indicated					

Table 2. Fixed Deadline Calls Open in 2017

Acronym	Programme	Call Launch	Call Deadline	Award Decision Timeframe
FRL	SFI President of Ireland Future Research Leaders Award	Q1 2017	Q2 2017	Q1/Q2 2018
IF	SFI Industry Fellowship (two rounds)	Q1 2017	Q2 2017	Q4 2017
			Q4 2017	Q2 2018
Spokes	SFI Research Centres – Spokes Fixed Call	Q1/Q2 2017 (TBC)	Q3 2017 (TBC)	Q1 2018 (TBC)
TIDA	SFI / El Technology Innovation Development Award	Q1 2017	Q2 2017	Q4 2017
SPD	SFI St. Patrick's Day Science Medal	Q2 2017	Q3 2017	Q1 2018
Discover	SFI Discover Programme	Q2 2017	Q2 2017	Q4 2017
IvP	SFI Investigators Programme	Q2 2017	Q4 2017	Q2/3 2018
SIRG	SFI Starting Investigator Researcher Grant (SIRG)	Q3 2017	Q1 2018	Q3 2018
Policy	Policy Research Programme	Q1 2017	Q2 2017	Q4 2017

Table 3. Rolling Calls Open during 2017

Acronym	Programme
Res Prof	SFI Research Professorship Programme
Spokes	SFI Research Centres – Spokes
SPP	SFI Strategic Partnerships Programme
ERCD	SFI ERC Development Programme

ERCS	SFI ERC Support Programme
C&W	SFI Conferences and Workshops
Discover	SFI Discover Opportunistic
SFI Fellows	SFI Fellowship Programme

Table 4. International Partnerships Open in 2016

Acronym	Programme	Lead Agency	Call Deadline	Award Decision Timeframe
NSFC	SFI-NSF China Partnership	SFI	Q2 2017	Q4 2017
US Irl	US-Ireland R&D Partnership Programme	NSF / NIH	NSF & NIH deadlines	NSF & NIH timeframes
Wellcome	SFI-HRB-Wellcome Biomedical Research Partnership	Wellcome	WT deadlines	WT timeframes
URF	SFI Royal Society University Research fellowship	Royal Society	RS deadline	RS timeframes
GROW	SFI-NSF Graduate Research Opportunities Worldwide (GROW)	NSF	Q4 2017	NSF timeframes
JPIs & ERANETS	Various	Various	Various	Various
BBSRC- SFI	BBSRC-SFI Partnership	BBSRC	2017 TBC	2018 TBC
EPSRC-SFI	EPSRC-SFI Partnership	EPSRC	2017 TBC	2018 TBC
iCORPs	SFI/NSF iCorps@SFI Entrepreneurial Training Programme	NSF	2017 TBC	2018 TBC