

October 2015

US-Ireland R&D Partnership Programme

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About SFI



Founded in
2000

Officially
established in
2003

€2.2bn
Commitment

by SFI since
2001 in

As at 31 December 2013

732 Active Awards
with future commitments totaling
€460m

< 4,000
awards

SFI position on landscape



Department of Jobs, Enterprise & Innovation



**Building Irish
Academic Base**



**Supporting
Indigenous Irish
Companies**



**Supporting
Multinational
Companies in Ireland**



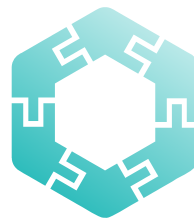
SFI Agenda 2020

Excellence and Impact



1 To be the Best science funding agency in the world at creating impact from excellent research and demonstrating clear value for money invested

2 To be the exemplar in building partnerships that fund excellent science and drive it out into the market and society

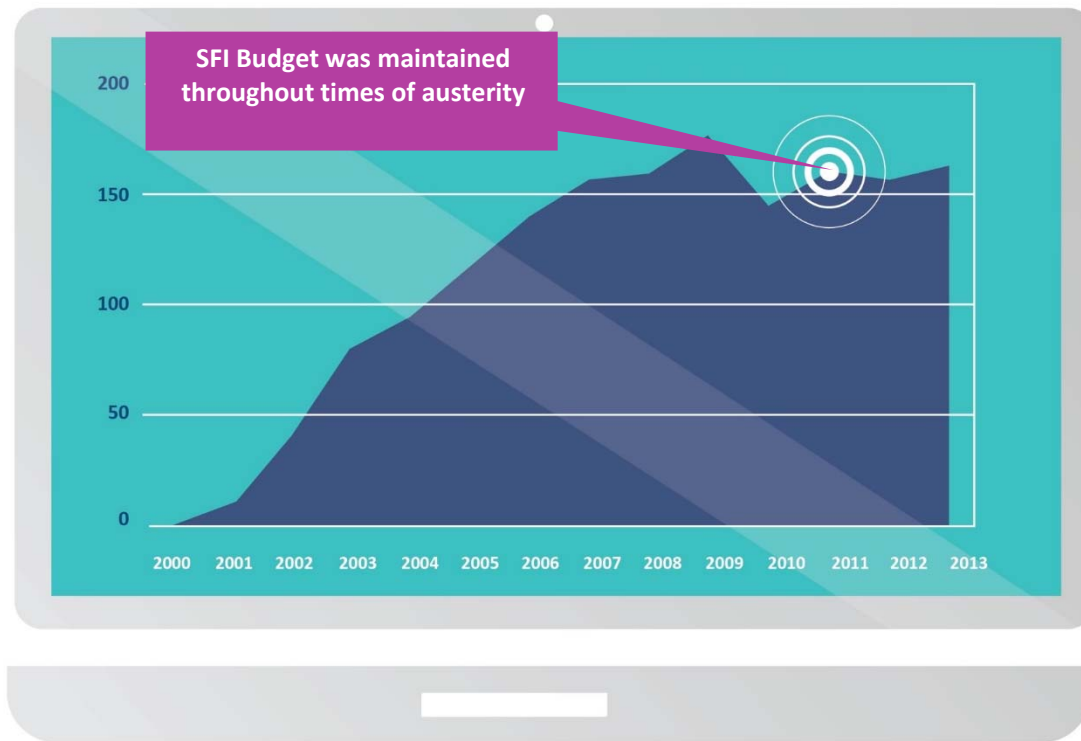


3 To have the most engaged and scientifically informed public

4 To represent the ideal modern public service organisation, staffed in a lean and flexible manner, with efficient and effective management.



Representation of funding since establishment

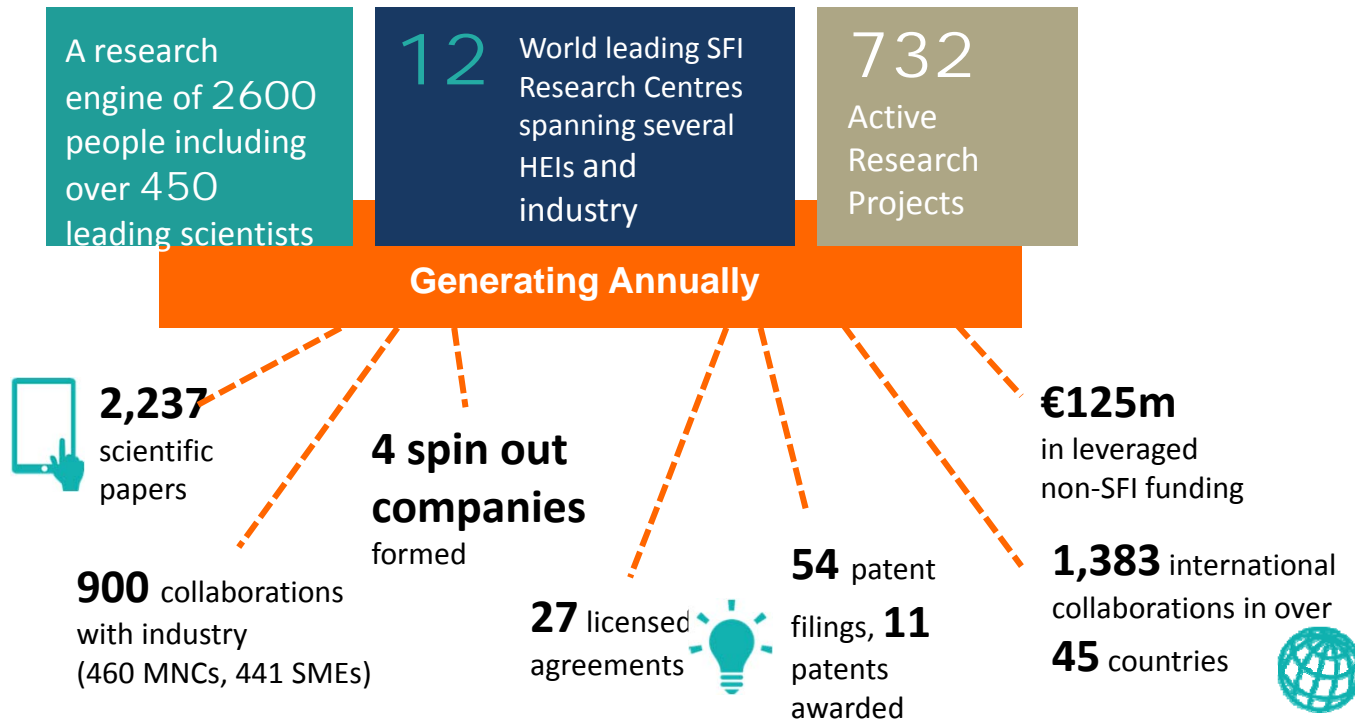


What SFI actually does...



- Makes **grants** to Higher Education Institutes (HEIs) in Ireland
- Based on competitive, international merit review for scientific excellence and impact
- Trains **people**
- Builds **infrastructure**
- Produces **scientific results** and technology
- Significant industrial linkages attracting, anchoring and starting companies
- Leverages other research funding e.g. Industrial / EU / Charitable / Philanthropic / International
 - **People and technology transfer to Industry and Society**
 - **Industry more competitive, better public services**
 - **Higher value products/services**
 - **Higher living standards**

What SFI delivers -



SFI/Industry Collaborations

There are currently **900+** collaborations attributed to active SFI research awards - (460 MNCs, 441 SMEs)



~25 SFI Funding Programmes

(including ~9 partnerships)



Board-Approved
Annual Plan 2015

PROGRAMME	Anticipated Launch Timescale *	Anticipated Endpoint Timescale
SFI Investigator Programme (IPI)	Q1 2015	Q4 2016
SFI / EI Technology Innovation Development Award (TIDA)	Q1 2015	Q4 2015
SFI Industry Fellowship**	Q3 2015	Q4 2016
SFI Doctor Programme	Q2 2015	Q3 2016
SFI Dr. Patrick's Dreyfus-Selinger Medal	Q3 2015	Q2 2016
SFI Starting Investigator Researcher Grant	Q4 2015	Q3 2016
SFI Career Development Award	Q2 2015	Q3 2015
SFI Research Contract - Spoken: Fund Call	WT deadline	WT deadline
SFI Fellowship Programme	Q3 deadline	Q3 deadline
SFI PhD Welcome Fund (WT) Biomedical Research	WT deadline	WT deadline
SFI Postgraduate Research Fellowship	Rolling	Rolling
SFI Royal Society University Research Fellowship Partnership	Rolling	Rolling
SFI Research Centres - Spoken: Ongoing Rolling Call	WT deadline	WT deadline
SFI Research Centres - Spoken: Ongoing Rolling Call	WT deadline	WT deadline
US Ireland R&D Partnership Programme	Rolling	Rolling
SFI New Graduate Research Opportunities Worldwide (GRWO)	Rolling	Rolling
SFI IRC Support Programme	Rolling	Rolling
SFI IRC Development Programme	Rolling	Rolling
SFI President of Ireland Young Researcher Award	Rolling	Rolling
SFI President of Ireland Young Researcher Award	Rolling	Rolling
SFI Postdoctoral Fellowship Programme	Rolling	Rolling
SFI Partnerships Programme	Q1 2015	Q3 2016
SFI Conferences and Workshops	Q1 2015	Q3 2016
SFI Outreach Opportunities	Q1 2015	Q3 2016
SFI STEM Education Postgraduate Scholarships (IIC)	Q1 2015	Q3 2016
SFI STEM Education Postgraduate Scholarships (IIC)	Q1 2015	Q3 2016
Postgraduate Scholarship Scheme	Q1 2015	Q3 2016
Postgraduate Scholarship Scheme	Q1 2015	Q3 2016
STEM Policy and Innovation Postgraduate Scholarships	Q1 2015	Q3 2016
STEM Policy and Innovation Postgraduate Scholarships	Q1 2015	Q3 2016
IIC Postgraduate Scholarships Programme (IIC)	Q1 2015	Q3 2016
IIC Postgraduate Scholarships Programme (IIC)	Q1 2015	Q3 2016
Enterprise Fund Postgraduate Programme (IIC)	Q1 2015	Q3 2016
Enterprise Fund Postgraduate Programme (IIC)	Q1 2015	Q3 2016

24-month cycle



Continual review for balance
Constantly look for gaps & rationalisation

SFI Programmes for Industry



Industry Fellowship

- Funds salary, travel and subsistence of an academic researcher to spend up to one year full time or two years part time in industry, anywhere in the world
- Funds travel and subsistence of Industry personnel to spend up to one year full time or two years part time in academia in Ireland
- No limit on the number of Fellows in any company
- No requirement for academic Fellow to return to the Research Body
- Up to max of €120k per Fellowship

SFI Partnerships

- Flexible Mechanism to support ambitious research projects of scale between industry and academia
- SFI matches the investment by industry
- (i) Competitive Joint Funding Partnership Programme: SFI-Industry co-funded, competitive call to research community for proposals
- (ii) Strategic Partnerships: proposal submitted to SFI jointly by academic researcher and company following an EoI stage

SFI Programmes for Industry



SFI Research Centres

- World leading, large scale Centres with major economic impact for Ireland
- Funding of between €1m and €5m per year in direct costs over six years
- SFI funds up to 70%. Minimum 30% industry investment at least one third of which must be cash
- Twelve Research Centres already funded representing €335m Exchequer funding and €190m industry investment by over 200 partners

SFI Research Centres Spokes

- Opportunity to become a new Industry or Academic Partner of an existing Centre
- Allows existing Centres to grow and evolve
- Fixed call: competitive assessment, 30% industry contribution
- Rolling call: proposals assessed on own merits, 50% industry cash contribution
- Minimum project size €400k, no maximum award size



US-IRELAND R&D PARTNERSHIP PROGRAMME



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A Unique Initiative of Cooperative Research Across Three Jurisdictions



InterTradeIreland



US-Ireland R&D Partnership - Equality, partnership and mutual respect

Aims



- Increase level of collaborative R&D by linking scientists and engineers in partnerships across the three jurisdictions
- To address crucial technology, environmental and healthcare research questions
- That will
 - generate valuable discoveries and innovations, transferrable to the marketplace;
 - lead to enhancements in health, disease prevention and healthcare;
 - expand educational and career opportunities in science and engineering.



Guiding Principles



Research Excellence, Leveraged Funding & Science

- Significant participation by researchers from each jurisdiction in each project:
 - **SINGLE TRIJURISDICTIONAL PROPOSAL**
- Single, competitive peer review of proposals:
 - **FACILITATED BY NIH/NSF**
- Each jurisdiction supports its own research costs.
 - **SFI/HRB in RoI, DEL/HSC R&D in NI and NSF/NIH in US**



Themes



- **Nanoscale Science & Engineering**
- **Sensors & Sensor Networks**
- **Telecommunications**
- **Energy & Sustainability**
- **Health (initially Cystic Fibrosis & Diabetes)**
- **Agriculture (pilot – DAFM)**



Investigator-led

Application process



- **Each proposal must have a minimum of one Principal Investigator from each jurisdiction**
- **Joint “tri-partite” proposal is submitted to NSF/NIH from the U.S. PI’s home institution.**
- **BEFORE the proposal is submitted to the NSF/NIH it must be submitted to the RoI and NI funding agencies *no later than 6 weeks* in advance of the NSF/NIH deadline for assessment in advance of pre-approval**
- **Additional pre-approval step required for proposals to be submitted to the NIH – 12 weeks in advance of proposal submission**

SFI Role in Review Process



- **Pre-approval of RoI budget**
- **Ensures that proposal is within remit**
- **Ensures that the RoI applicant is eligible**
- **Ensures that there is significant contribution from the RoI investigator**
- **Acts as a gateway to the HRB for relevant patient-oriented health-related proposals**
- **If supportive, SFI writes a funding commitment letter outlining budget approval, subject to NSF/NIH approval – letter to be included in the full proposal application to NIH/NSF**
- **NI agencies carry out same process in parallel**
- **Informs the US agency about the application and sends the funding commitment letter to them**

NSF/NIH role in review process



- Once pre-approved by the RoI and NI agencies, the Irish agencies submit a Funding Commitment Letter which is included in the full proposal submission to NSF/NIH
- Proposals are submitted via the US host institution and evaluated in accordance with the standard *NSF merit review criteria of intellectual merit and broader impacts of the proposed effort*.
- Review will be conducted using the *NSF merit review process*, including conflict of interests and confidentiality policies.
- Inform US-Ireland partner agencies *IF the application is to be funded* and send the reviews/summary statement – does not happen if the application is not successful

Budget available



- **RoI applicants can apply to SFI for direct costs of up to €350k for a 3-5 year duration. In addition to the direct costs, SFI also makes an overhead contribution to the host research body.**
- **SFI eligible costs are: Staff, materials and consumables, equipment and travel.**
- **NI applicants can apply to DELNI/Invest NI for total costs of up to £320k**
- **US applicant budget subject to NSF/NIH conditions**

US-Ireland Planning Grant



- **Travel grants are available from SFI to develop the tri-partite proposal with US and NI partners**
- **Not a pre-requisite for submitting a full proposal – to facilitate development of the tri-jurisdictional proposal**
- **Budget available – up to €5,000 direct costs**

Review Process



NI, RoI and US Partners Identified

Pre-approval step for Health/NIH submission – 12 weeks in advance of deadline

Draft Proposal Written – support provided through US-IRL Planning Grant

RoI partner seeks pre - approval from SFI and/or HRB 6 weeks in advance of NSF/NIH deadline

US Partner submits final proposal to NSF or NIH incl funding commitment letters from NI and ROI agencies

Success of the partnership programme



- **Twenty five successful projects**
Sensors (5), Nanotechnology (8), Health (4), Telecommunications (2) Energy & Sustainability (6)
- **Investment across 3 jurisdictions:** approx. \$40m
- **90 investigators from**
 - **2** Northern Ireland universities, **8** universities and institutes in Ireland and **28** U.S. institutions
- **Training (NI and RoI)**
 - 60 Postdocs, 57 PhD and MSc students, 11 Research assistants/technical posts
- **Two Centre partnerships to be funded: Photonics/telecoms and Pharma**

(October 2015)



Centre-to-Centre mechanism

Software
Pharma
Nanotechnology
MEDICAL DEVICES
Applied Geosciences
Digital Content
 Industry commitment of €190 million
€355 million from SFI
Telecommunications
PERINATAL RESEARCH
Energy
Nano Materials
Functional Foods
FOOD FOR HEALTH
BIG DATA | **Marine Renewable Energy**

SFI Research Centres



Memorandum of Understanding



- Updated and signed in late September 2014
- Three agencies involved: NSF, DEL NI and SFI
- Four thematic areas: Nano, Sensors, Energy & Sustainability, and Telecoms
- Updated MoU refers to Centre-to-Centre collaborations



Centre-to-Centre mechanism



- **To date, the programme has been investigator-led**
 - **New mechanism under development to link Centres in the three jurisdictions**
 - **Networking session with the NSF-funded Engineering Research Centres to discover potential synergies**
 - **Two Centre-to-Centre partnerships were reviewed this year – positive outcomes**
-

Current mechanism



- **Intention to apply - submit a *2-page EoI* to their funding agency which is assessed by the partner agencies**
- **Tri-jurisdictional centres proposal is developed and submitted to the NSF 5 weeks in advance of the ERC annual site visit together with the ERC's annual report**
- **Proposal is reviewed by the site visit panel and the review is shared with DEL NI and SFI to aid a joint funding decision.**



Other mechanisms for interaction

NSF GROW



- **Graduate Research Opportunities Worldwide** enables NSF Graduate Research Fellows to gain international research experience and establish collaborations with counterparts at research institutions in partner countries around the world.
- NSF funds the student scholarships and travel expenses, and the host funds the additional living expenses.
- Ireland is now a partner
- Visits of between three and twelve months will be supported. SFI will provide support for the visiting Fellow's additional living expenses through the Irish host institution.
- Four awardees to be located at Curam, AMBER, SSPC and Prof Caffrey (TCD)
- For further information, please see:

<http://www.sfi.ie/funding/funding-calls/open-calls/sfi/grow-research-in-ireland.html>

or contact GROW@sfi.ie

Summary



- **US-Ireland R&D Partnership programme is open for business:**
 - Investigator-led programme
 - Centre-to-Centre mechanism
- **Future queries usireland@sfi.ie**
- **NSF GROW programme is a mechanism for seeding a collaboration**

