About SFI

- Founded in 2000
- Officially established in 2003
- €2.2bn Commitment by SFI since 2001
- 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

SFI Budget was maintained throughout times of austerity
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 -

A research engine of 2,600 people including over 450 leading scientists.

12 World leading SFI Research Centres spanning several HEIs and industry.

732 Active Research Projects.

Generating Annually:

- 2,237 scientific papers
- 4 spin out companies formed
- 900 collaborations with industry (460 MNCs, 441 SMEs)
- 27 licensed agreements
- 54 patent filings, 11 patents awarded
- €125m in leveraged non-SFI funding
- 1,383 international collaborations in over 45 countries.
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

24-month cycle

- LARGE SCALE CENTRES
- EARLY & MID-CAREER RESEARCHERS
- OUTSTANDING INDIVIDUALS
- RECRUITMENT
- RESEARCH INFRASTRUCTURE
- INTERNATIONAL
- LEVERAGING EXTERNAL FUNDING
- ENTERPRISE & INDUSTRY FACING

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
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.
A Unique Initiative of Cooperative Research Across Three Jurisdictions

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 Rol 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
Telecommunications
PERINATAL RESEARCH
Nano Materials
Energy
FUNCTIONAL FOODS
FOOD FOR HEALTH
BIG DATA
Marine Renewable Energy
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](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