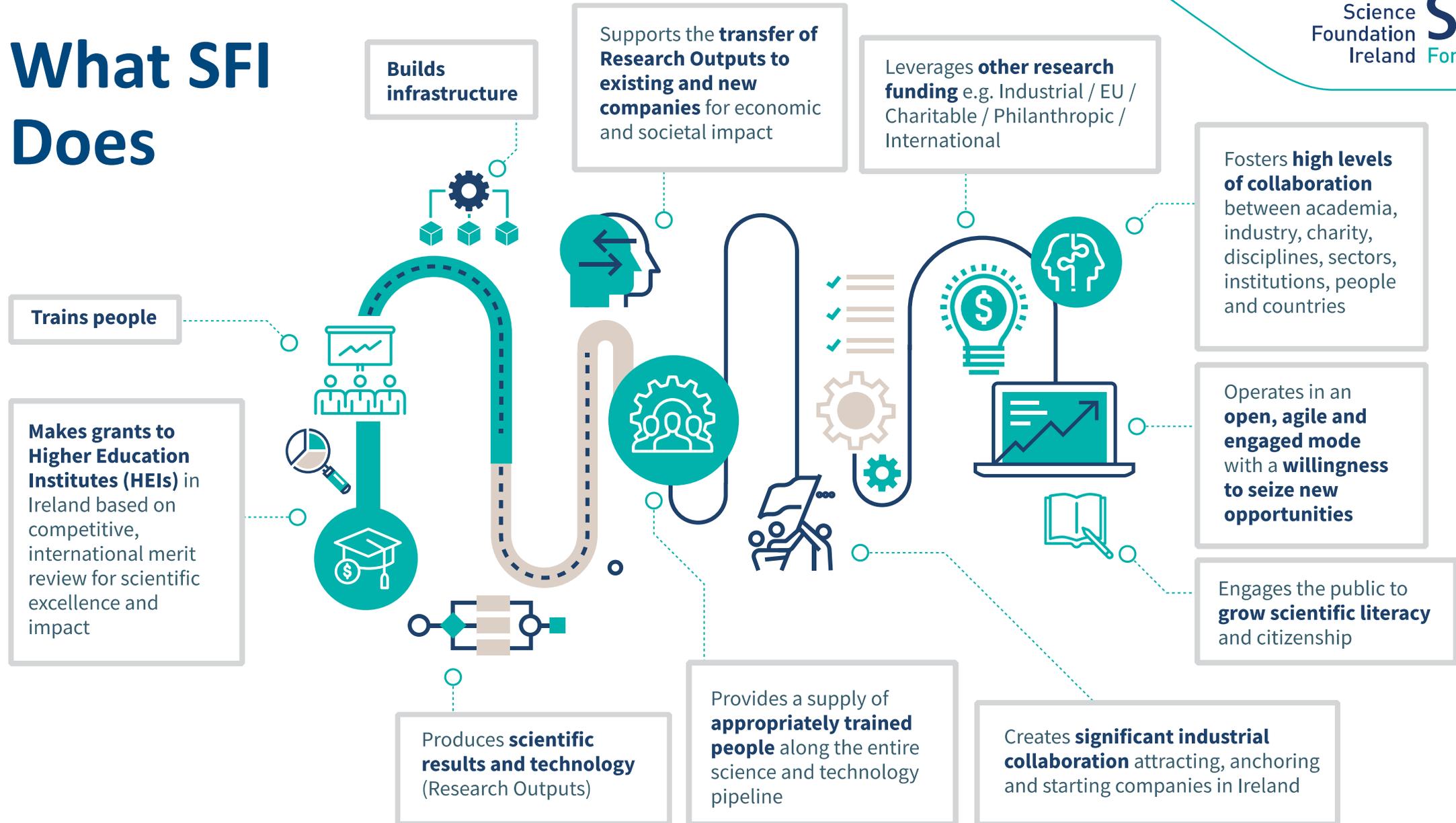


*EQUITY*

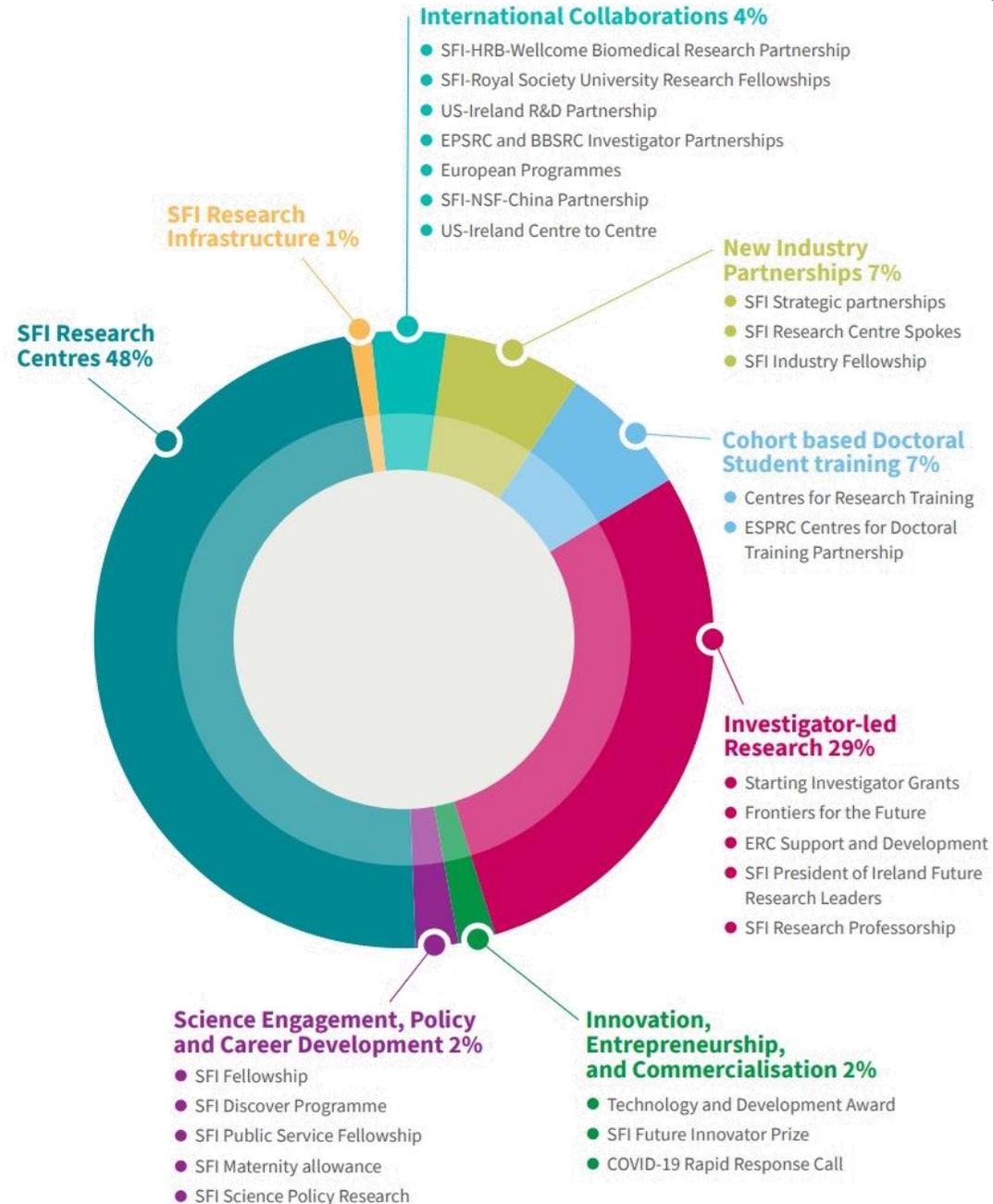
# Science Foundation Ireland

**Dr Louise Rocks**  
Enterprise Partnerships  
**UCD, 31 May 2022**

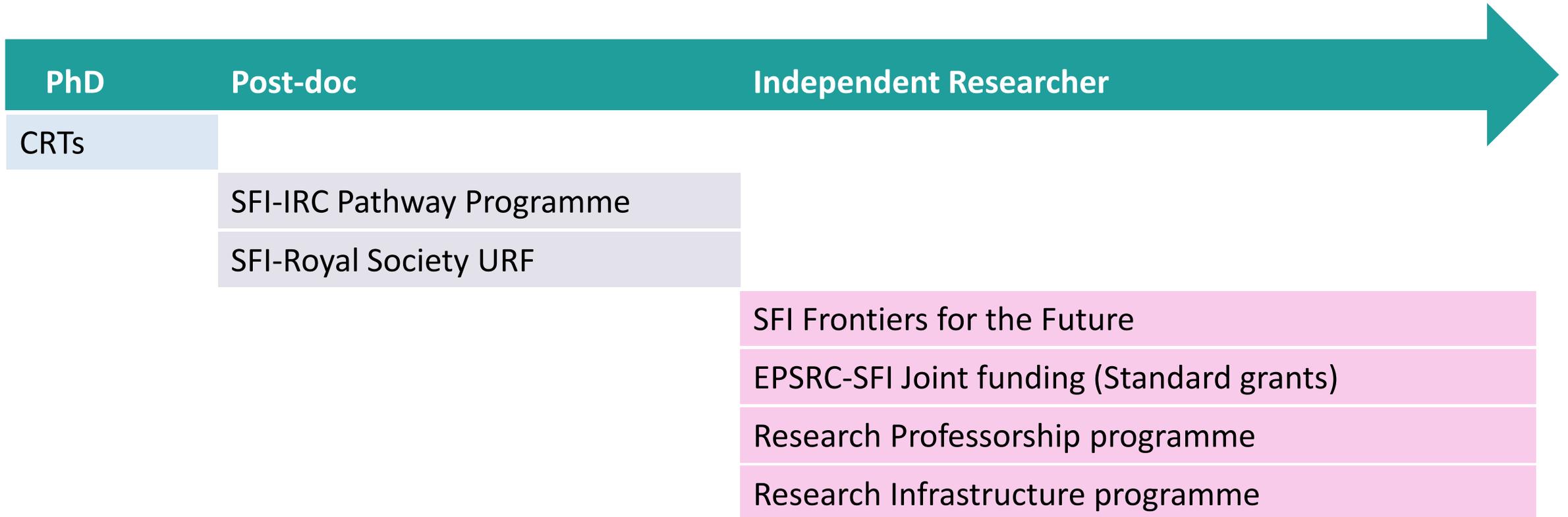
# What SFI Does



# SFI Funding Portfolio



# Overview of Investigator led Research



# SFI-IRC Pathway programme

## Programme details:

- Support talented postdoctoral researchers across **all research disciplines.**
- Two streams to the programme: **AHSS-led** & **STEM-led**
- Aims to support researchers to develop their track record and establish themselves as independent investigators.
- Up to €425,000 in funding over a 48 month term.
- Enables the lead applicant to conduct independent research and supervise a PhD student.

## Outcomes:



Lead a programme of excellent, independent research



Mentoring & training of a PhD student



Develop track record, collaborations and funding diversification

# Frontiers for the Future Programme

## Programme details:

- The programme comprises two streams:
  - **Frontiers for the Future Projects:** funding for high-risk, high-reward research that facilitates highly innovative and novel approaches to research
  - **Frontiers for the Future Awards:** larger scale funding for innovative, collaborative and excellent research programmes that have the potential to deliver impact
- Women researchers are encouraged and supported, as well as emerging researchers and those coming back from industry or long terms leaves-of-absence.
- The programme supports partnerships with other agencies including **Geological Survey Ireland (GSI)**, **Sustainable Energy Authority of Ireland (SEAI)** and **Children's Health Foundation (CHF)**.

SFI Frontiers for the Future Programme		
	Projects	Awards
Amount	€200,000 - €480,000 (direct costs)	€500,000 - €1,000,000 (direct costs)
Duration	24, 36 or 48 months	48 or 60 months

# SFI Research Professorship

## Programme details:

- Support national strategic priorities by assisting research bodies in the recruitment of world-leading researchers for Professorial Chairs, or similar research leadership positions in targeted scientific areas.
- The programme has also acted as a mechanism to support the recruitment of individuals who possess a strong industry background.
- SFI will commit to providing financial support for **up to 10 years** (a maximum of 2 funding cycles of 5 years).
- No Maximum budget

## World-Leading Experimental Quantum Physicist Joins University College Cork

Cork, Ireland, December 2018 – University College Cork (UCC) has appointed Professor Séamus Davis to spearhead a pioneering research programme to study Quantum Materials for Quantum Technology, in a joint appointment with the University of Oxford.

## Leading quantum technology scientist, Professor Ortwin Hess, appointed by Trinity College Dublin



Trinity College Dublin recently appointed Professor Ortwin Hess, a global leader in photonic quantum technology research and science, to lead a stellar project that will give rise to more secure quantum communications and quantum simulation, and through quantum sensing may even discover new properties of bio-molecules and novel materials.

Professor Hess has been awarded approximately €3.85 million in funding under the **SFI Research Professorship Programme** to lead the METAQUANT project.

Quantum technologies usually require extremely cold temperatures to reduce detrimental noise effects, which limits the ways in which they can be adapted for use in society. The METAQUANT programme is a theoretical and computational project aiming to develop computer-based 'in silico' quantum tools to architect photonic quantum technologies fit to work at room-temperature and in realistic environments using quantum metamaterials.

# US-Ireland R&D Partnership

## Programme details:

- Overall goal is to increase the level of collaborative R&D amongst researchers and industry across the three jurisdictions.
- Aims to generate valuable discoveries and innovations which are transferable to the marketplace, or will lead to enhancements in health, disease prevention or healthcare.
- ‘Single-proposal, single-review’ mechanism is facilitated by the National Science Foundation (NSF) and National Institutes of Health (NIH) who accept submissions from tri-jurisdictional (USA, NI and ROI) teams.
- Centre-to-Centre (C2C) programme, to link researchers in SFI-funded Research Centres, NSF-funded Engineering Research Centres (ERC) and researchers in Centres in Northern Ireland to develop partnership projects.

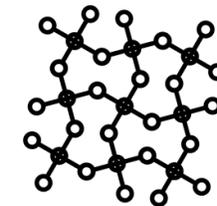
## Funding

ROI applicants can apply to SFI for direct costs of up to €350k for a 3–5-year duration.

## Thematic Areas



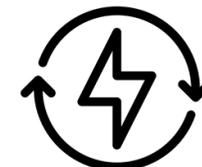
Sensors & Sensor Networks



Nanoscale Science & Engineering



Telecommunications



Energy & Sustainability

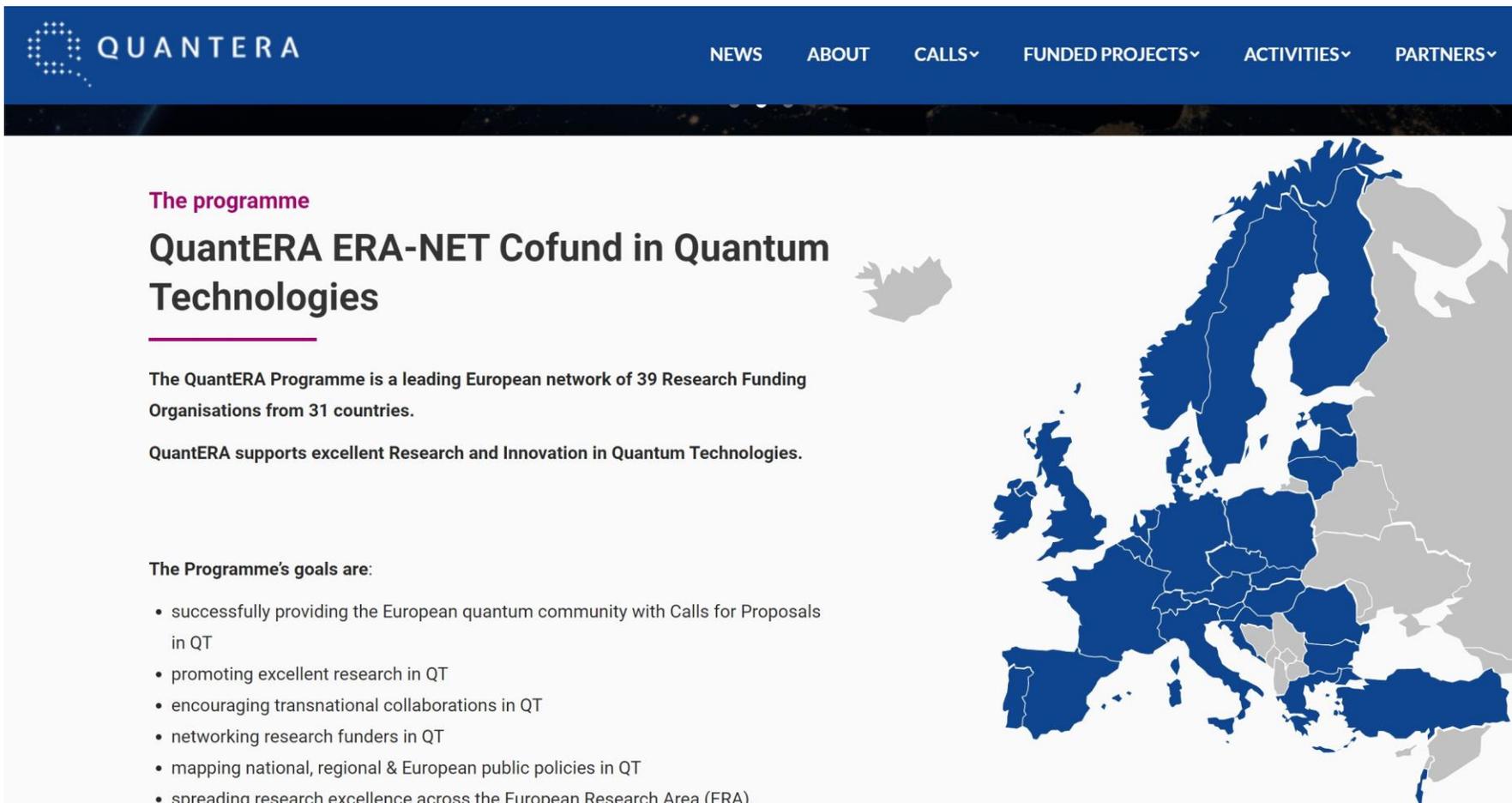


Cybersecurity



Health (NIH remit)

# ERA-NET on Quantum Technologies (QuantERA II)



**QUANTERA** NEWS ABOUT CALLS FUNDED PROJECTS ACTIVITIES PARTNERS

**The programme**

## QuantERA ERA-NET Cofund in Quantum Technologies

The QuantERA Programme is a leading European network of 39 Research Funding Organisations from 31 countries.

QuantERA supports excellent Research and Innovation in Quantum Technologies.

**The Programme's goals are:**

- successfully providing the European quantum community with Calls for Proposals in QT
- promoting excellent research in QT
- encouraging transnational collaborations in QT
- networking research funders in QT
- mapping national, regional & European public policies in QT
- spreading research excellence across the European Research Area (ERA).



QuantERA answers the growing need for collaborative endeavours and common funding framework for QT research.

### Funding

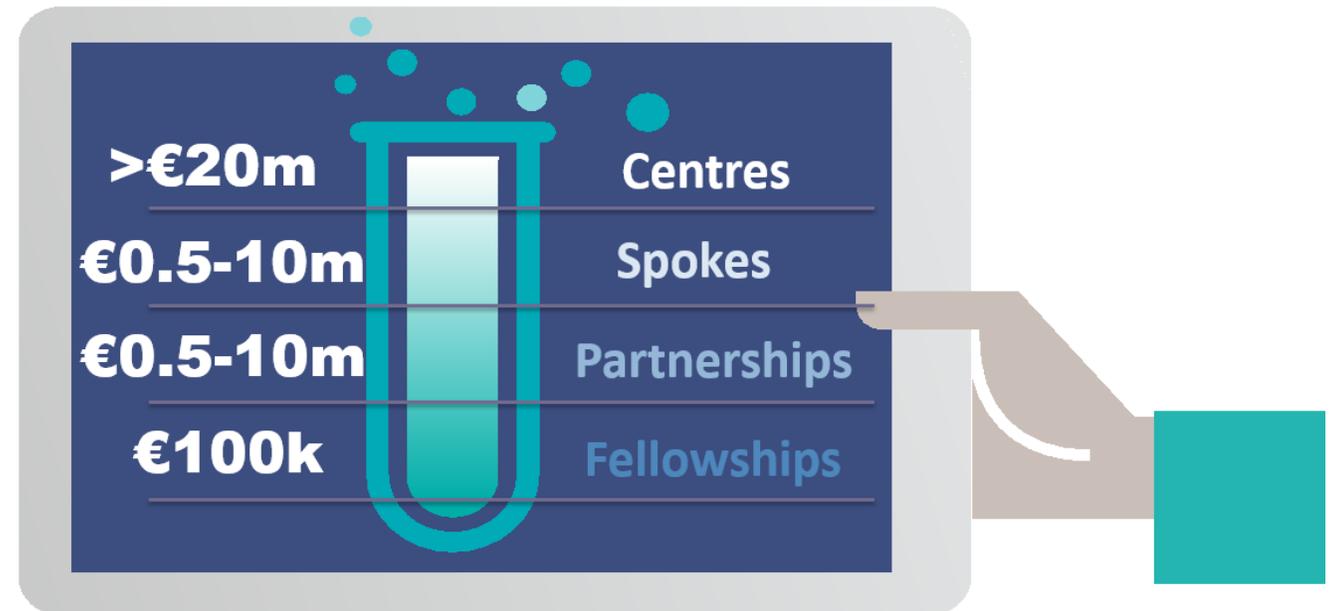
- Up to €300k for a co-ordinating Irish Partner
- Up to €200k for a non-coordinating partner
- 3-year duration

# SFI Academia/Industry Collaboration Strategy

## Advisory Service



## Collaboration Programmes



# Why Ireland for Research



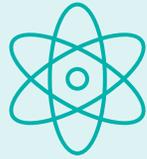
Cohesive ecosystem



Fewer degrees of separation & agility



Infrastructure



Excellent science



Ireland as a testbed



Skilled population & talent pool



Policy & regulation influence



World leading Research Centres

## Innovation scoreboard

Ireland is...

1<sup>st</sup>

For knowledge diffusion

1<sup>st</sup>

For knowledge impact

3<sup>rd</sup>

For knowledge absorption

Ireland ranked 15<sup>th</sup> in the world by the Global Innovation Index 2020



## Field Specific Rankings by Publication Quality

Ireland ranks\*:

2<sup>nd</sup>

Immunology

3<sup>rd</sup>

Agricultural Sciences

5<sup>th</sup>

Materials Sciences

Ireland 12<sup>th</sup> place in global rankings for the overall quality of scientific research



\*Ireland's ranking statistics are gathered via InCites by Clarivate Analytics



<b>ADAPT</b>	Digital content technology
<b>AMBER</b>	Advanced materials and bioengineering
<b>APC</b>	Microbiome
<b>BiOrbic</b>	Bioeconomy
<b>Confirm</b>	Smart manufacturing
<b>CONNECT</b>	Future networks and communications
<b>CÚRAM</b>	Medical devices
<b>FutureNeuro</b>	Chronic and rare neurological diseases
<b>I-Form</b>	Advanced manufacturing
<b>iCRAG</b>	Applied geosciences
<b>Insight</b>	Data analytics
<b>IPIC</b>	Irish photonic integration
<b>Lero</b>	Irish software
<b>MaREI</b>	Energy, climate and marine
<b>SSPC</b>	Pharmaceuticals
<b>VistaMilk</b>	Precision pasture-based dairying

# Industry RD&I Fellowship Programme

## Programme details:

- Launched in 2021, IRDIF is the first SFI programme to operate under State aid rules, in particular the General Block Exemption Regulation (GBER)
- Supports academia-industry interactions by building strategic partnerships with industry to perform cutting-edge, industry-informed STEM research
- Funds an academic (faculty & post-doc level) to work on a research project while embedded in an industry setting; company can be based in Ireland or abroad and can be Small, Medium or Large
- SFI supports salary and mobility costs up to max. €100k. Industry partner supports remaining costs
- Awards: up to 12 months full-time or 24 months part-time
- Fixed call deadline - 1-2 calls for applications per year (**2022 call opened 21 Feb with 18 May and 19 October 2022 deadlines**)



€2m+ in awards made to date



27 awards made to date INCLUDING  
4 International Fellowships

## Outcomes:



Mentoring & training of researchers in industry-relevant skills



Enhanced academia-industry collaborations & knowledge exchange

# Strategic Partnership Programme

## Programme details:

- Research is funded 50/50 by SFI and co-funding partner(s)
- Co-funding partner can be a company, funding agency, charity, philanthropic organisation or higher education institute (or combination)
- Min. co-funding of €400K
- Up to 5 years duration
- Rolling call (apply at any time)
- EoI phase, followed by full proposal

## Post Award:

- 21 awards to date (12 active)
- €45.6M awarded (direct costs)
- Awards range in size from ACORN (€400K) to NexSys (€8M)
- 86 co-funding partners (78 distinct)
  - 37 MNCs**
  - 4 Start-ups**
  - 8 Charities**
  - 7 HEI/Research institutes**
  - 2 International funding agencies**
  - 11 SMEs**
  - 7 Semi-state bodies**
  - 2 Philanthropic donations**

# Spokes Programme

## Programme details:

*The Spokes Programme provides a vehicle to support and incentivise SFI Research Centres to drive activity in a collaborative manner in areas of national strategic importance in collaboration with industry*

- Mechanism for industry to engage with a Research Centre(s) – single or multiple centres
- Project must be aligned with research area of one or more centres
- Open to existing or new co-funding partners
- Research is funded 50/50 by co-funding partner(s) and SFI
- Rolling call (apply at any time), 2-stage process: EoI followed by full proposal if invited
- Awards: 1 to 5 years duration

### Way for industry to:



**Connect into national expertise**



**Partner with SFI research centres and other companies**



**Access specialised facilities and testbeds**



**Advance knowledge/projects**



# Thank you

**Science Foundation Ireland**  
For what's next

Web: [www.sfi.ie](http://www.sfi.ie)

Twitter: [@scienceirel](https://twitter.com/scienceirel)

# SFI Centres for Research Training (CRTs)

## Programme objectives

- Brings together the higher education sector and industry to develop and deliver innovative programmes of research and training for postgraduate students in Ireland under the theme of “Data and ICT Skills for the Future”.
- 6 SFI CRTs funded in 2018 will provide training for over 700 postgraduate students in the areas of Machine Learning, Digitally Enhanced Reality, Foundations of Data Science, Genomics Data Science, Artificial Intelligence and Advanced Networks for Sustainable Societies.
- A cost-share model is in place that stipulates that at minimum 1 out of every 5 students is funded from leveraged non-SFI sources.



**6 SFI CRTs** (in Data and ICT) will provide training for over 700 postgraduate students (over lifetime 7.5 yrs)



**Cohort based education** with interinstitutional research and training and a focus on industry placements



Collaborations involve **11 Higher Education Institutions** and **46 industry partners**



**€104 million investment**

# SFI Research Infrastructure Programme

Two key actions of the **SFI strategy** are to:

- 1) invest in state-of-the-art research Infrastructure programmes which will facilitate high quality excellent research, and
- 2) support increased inter-institutional and national sharing of research infrastructure across academia and enterprise to increase the utilisation and efficiency of the funded research infrastructure.

## Programme objectives

The Research Infrastructure programme aims to:

- Support the research community in building and sustaining the required infrastructural capacity to accomplish high-quality, high-impact and innovative research
- Specific category – **Strategic Research Infrastructures** focuses on large-scale items in areas of national priority and in other areas of strategic opportunity
- Minimum budget for the programme is €500,000

## Outcomes:



Provide cutting-edge research infrastructure to support high-quality research activities and innovation



Facilitate broad usage and encourage partnerships and collaboration across Ireland and encourage research partnership with industry through collaborative initiatives



Make Ireland an attractive location for world-leading scientists and engineers