

Annual Report and Accounts 2013



Research for Ireland's Future

Excellence and Impact

SFI VISION:

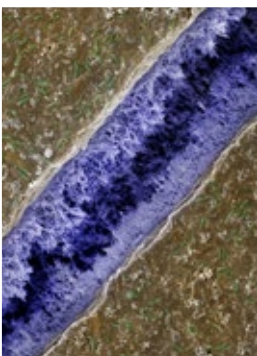
Ireland will be a global knowledge leader that places scientific and engineering research at the core of its society to power economic development and social progress.

SFI MISSION:

SFI will build and strengthen scientific and engineering research and its infrastructure in the areas of greatest strategic value to Ireland's long term competitiveness and development.

Front cover image

Winner of the SFI Image of the Year Competition 2013.



Dr Rory Heffernan, University College Dublin

Title: A Nano-ravine

This image shows the membranes used in one of the last stages of the public water cleaning process - nanofiltration. Over time, a layer of particles builds up on these membranes used for filtration which means they need to be replaced. This image captures the layer of particles that have built up on the membrane (brown), bacteria growing on this layer (green) and a view through a tear into the structure of the membrane itself (blue).

Rory Heffernan is a PhD research student in Prof Eoin Casey's research group at UCD. Rory captured the image in collaboration with Dr Ian Reid (UCD NIMAC).

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SFI supported approximately

2600
People



Including

451

Lead Scientists

SFI RESEARCH CENTRES

SFI has seven new cutting-edge research centres in place throughout the country and will work with over 150 industry partners.

Industry has committed

€100 million

SFI has committed **€200 million** over the next six years.

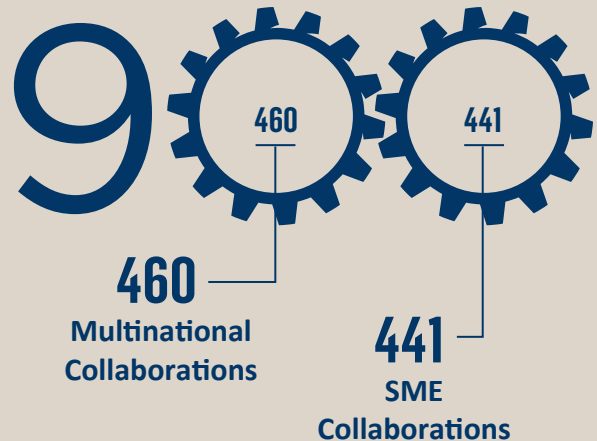
SFI award holders secured

€125 million

in external funding.

45% of this was from the EU

SFI awards directly supported over 900 collaborations with industry



SFI SUPPORTED RESEARCHERS
ENGAGED IN OVER 2990
OUTREACH/PUBLIC TALKS/LECTURES



38 SFI funded Scientific Conferences and Workshops in 2013

6,986 international delegates

3,349 national participants

Projected economic value to Ireland of up to **€8 million**

Note: Figures do not include public engagement and outreach support events



SFI approved **307** new awards to **20** research bodies in Ireland

SFI invested over **€152** million in projects



Ireland is ranked **20th** in the world for overall international scientific citations per paper

1st in Immunology

1st in Animal and Dairy

3rd in Nanosciences

4th in Computer Science

6th in Materials Science



606

individuals progressed from SFI funded teams.

65%

of these remained in Ireland.



Ireland highlighted as one of

FIVE

up and coming countries in the world to watch for scientific research excellence.

SFI Core Values

Excellence:

“Delivering what we promise and exceeding expectations”

SFI is an exemplar funding agency which funds research of the highest international quality and of strategic value to Ireland. SFI staff are committed to achieving excellence within our organisation.

Integrity:

“We do the right thing”

SFI will ensure high standards in all aspects of its work, carried out with consistency, honesty, impartiality and responsibility. We ensure respect for ethical standards and stay accountable to our stakeholders.

Passionate:

“We genuinely care about every aspect of what we do and are totally committed to the individual, the organisation and our community.”

SFI staff are a passionate workforce, aiming high, always achieving and exceeding our goals.

Collaborative:

“Working together for science in society; Working together for each other”.

We are approachable and supportive of each other and the community in which we work. We are consultative and responsive and are committed to collective responsibility in delivering our work.

Progressive:

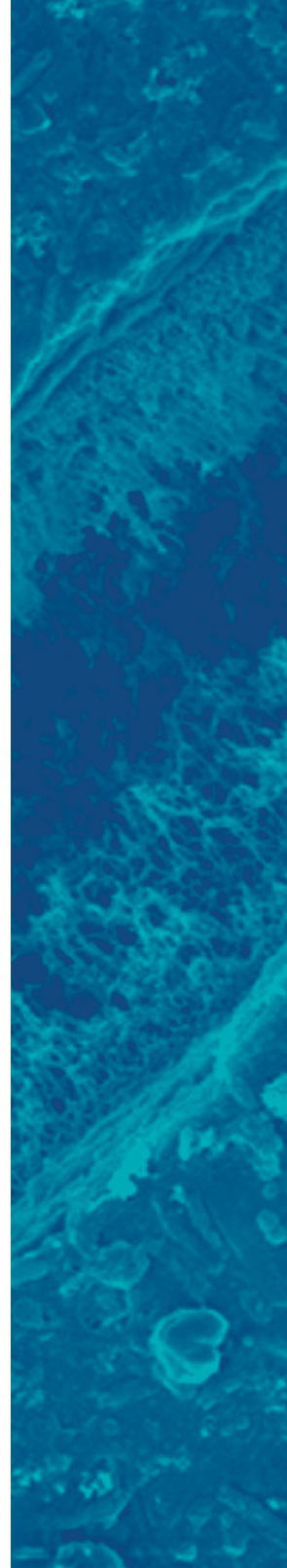
“We are an innovative, dynamic and visionary funding agency.”

SFI fosters an environment that stimulates and rewards original thinking. We are continually evolving to support world class scientific research in Ireland.

Respect:

“We value everybody within and outside the organisation for their time, views and contribution to achieving SFI strategy”.

SFI fosters an open and inclusive environment, where everyone is respected and treated with dignity.



Agenda 2020

Agenda 2020 is SFI's strategic plan over the period 2012 to 2020. It has four primary objectives:

1 To be the best science funding agency in the world at creating impact from excellent research and demonstrating clear value for money invested. This will mean:

- a. Investing strategically and selectively, guided by ongoing research prioritisation including the completed national research prioritisation exercise;
- b. Investing in SFI's translational research capability to enhance the progression of research from discovery to delivery;
- c. Developing a set of research centres that are recognised internationally, that attract international research talent and capital, and that attract, anchor and spin out related companies in Ireland; and
- d. Increasing the numbers of SFI-trained researchers employed in industry.

2 To be the exemplar in building partnerships that fund excellent science and drive it out into the market and society. This will require:

- a. Building strategic partnerships and
- b. Diversifying the funding sources for Ireland's scientific base.

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.

Chairman's Statement

Ann Riordan
Chairman, SFI



I am pleased to present SFI's annual report and financial statements for 2013.

2013 was a very significant year for SFI. The organisation expanded its remit under

the Industrial Development (Science Foundation Ireland) (Amendment) Act 2013, allowing SFI to fund applied as well as oriented basic research. This is an important step in the development of the relationship between industry and academia in Ireland. SFI can now fund research projects on an all-Ireland basis as well as participate in international collaborative funding schemes. The expanded remit also allows SFI to further enhance outreach activities in science, technology, engineering and maths (STEM) at both primary and secondary education levels as well as increasing public awareness of the sciences.

2013 marked the first full year of the implementation phase of SFI's strategic plan Agenda 2020. This ambitious plan aims to position Ireland as a global knowledge leader, a society with scientific and engineering research at its core, driving economic, social and cultural development. The SFI Board continues to closely monitor the implementation of the plan against the key performance indicators as outlined in Agenda 2020.

SFI's delivery under Agenda 2020 began with the announcement of a significant new investment of €200 million, with additional industry funding of €100million, in seven new world-class SFI Research Centres; AMBER, APC, Infant, I-PIC, INSIGHT, MaREI and SSPC.

SFI will continue to invest in SFI Research Centres. Our annual plan provides for some further centre awards, subject to satisfactory peer review, in 2014 in line with strategic priority areas identified as part of the implementation of the Government's Research Prioritisation Exercise through the Prioritisation Action Group (PAG). Investment in research projects and centres in 2014 will complement and catalyse Irish participation in the European 'Horizon 2020' programme to maximise Ireland's potential for winning funding from this new EU funding scheme.

SFI was successful in meeting all of its targets under the Government's Action Plan for Jobs during the year. It is clear that SFI continues to play an important role alongside IDA Ireland and Enterprise Ireland in creating an environment conducive to attracting, retaining, expanding and initiating industry and creating jobs in Ireland.

In 2014 SFI will continue to build industry partnerships that fund excellent scientific research that will drive both economic and societal benefits including the development of careers for researchers in industry and academia through a broad range of career development schemes.

In implementation of the National Research Prioritisation Exercise through the PAG, SFI has continued to build strategic partnerships for collaborative funding initiatives with other national agencies, for example, HRB, IRC and Teagasc.

The development of Ireland's international reputation and standing in the area of scientific research remains a key focus for SFI. It was impressive that Ireland received a special mention as one of five 'Up and Coming' destinations for high level research based on the quality and quantity of scientific research being carried out in our Higher Education Institutes by Nature Magazine, the eminent scientific publishing journal.

2013 also saw the launch of the SFI Discover Programme for education and public engagement activities in line with SFI's commitment under Agenda 2020 to promote the study of, education in and awareness of STEM. A key focus of SFI Discover is to increase the number of STEM graduates. In 2013 Smart Futures engaged with approximately 28,000 students through STEM outreach, careers events, competitions and online channels. Another enormously successful Science Week in November was the highlight of an important year for the promotion of STEM in Ireland. Over 800 events took place across the country with over 250,000 participants in schools, colleges, universities, libraries, companies and community groups taking part.

As I begin my tenure as Chair of SFI I am particularly excited about doing so at a time when SFI is in a position to make an even greater contribution to scientific research excellence and the development of industry, enterprise and

'Future Agri-Food' agreement between SFI and Teagasc

employment in Ireland. In addition to ensuring that the organisation's focus and efforts in these areas remain a priority, I am also committed to working with the Board, the Director General and SFI Executive team and the Government to realise SFI's broader vision.

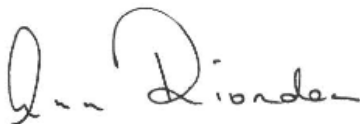
One immediate priority for me will be to validate through independent assessment SFI's excellent corporate governance performance and compliance to the highest standards of corporate governance codes and ethics.

On behalf of the Board I would like to thank my predecessor Prof Patrick Fottrell who retired in 2013 and acknowledge his considerable contribution to SFI since his appointment in 2003. His dedication and expertise have played a significant role in the development of SFI and the establishment of a world-class research environment in Ireland.

I would like to acknowledge the Government's continued commitment to SFI through An Taoiseach, Enda Kenny TD; Minister for Jobs, Enterprise and Innovation, Richard Bruton TD; and Minister for Research and Innovation, Seán Sherlock TD.

Finally I would also like to thank the enormous effort of the Director General, Prof Mark Ferguson and the SFI staff during what was a very intense but highly productive year for SFI and arguably one of the most important and formative years in the organisation's existence.

Together we are aiming to build on last year's achievements in creating impact for Ireland's society and economy through excellent scientific research.



Ann Riordan
Chairman

In February, a collaboration agreement, 'Future Agri-Food', was signed between SFI and Teagasc. This agreement aims to strengthen and accelerate research and innovation in Ireland's agri-food sector which employs in the region of 150,000 people in Ireland. Agri-food is Ireland's largest indigenous industry having delivered a record €9 billion in exports in 2012. SFI and Teagasc will now jointly fund research grants between scientists from the agriculture and food disciplines, and scientists from other scientific and engineering disciplines.

The joint initiative aims to bring a broad range of disciplines and technologies to bear on strengthening innovation in the agri-food sector and to offer opportunities to scientists in a wide range of disciplines including genomics, robotics, material science, nanotechnology, immunology and ICT. The convergence of this broad range of disciplines will help underpin the profitability, competitiveness and sustainability targets set out in the Department of Agriculture's "Food Harvest 2020" strategy.



Prof Mark Ferguson, Director General, SFI;
Mr Seán Sherlock, TD, Minister for Research and
Innovation; Prof Gerry Boyle, Director of Teagasc;
and Mr Simon Coveney, TD, Minister for Agriculture,
Food and Marine.

Director General's Statement

Research excellence, local engagement, global impact.



2013 was an outstanding and productive year for SFI and the research community it supports.

Science Foundation Ireland (SFI) and the Irish research community, both academic and commercial, strongly welcome the

Government's continued

commitment to investment in scientific research and its appreciation of the importance of such investment for future economic and societal development in Ireland. SFI both contributes to and executes Government policy. All of the Action Plan for Jobs targets and actions assigned to SFI for 2013 were accomplished. Additionally, a number of important initiatives were executed as part of the Prioritisation Action Steering Group (PAG), established by Government and chaired by Mr Seán Sherlock, TD, Minister for Research and Innovation, to enact the findings of the Irish Government's Research Prioritisation Steering Group Report published in March 2012.

During 2013, 99.2% of research expenditure from SFI was focused in the priority areas identified in the Key Performance Indicators as set out in SFI's Agenda 2020. SFI has contributed significantly to Irish public sector reform. All new Scientific Project Manager staff within SFI are now hired on five year fixed term contracts and there has been a reduction in the number of senior staff.

SFI is a lean and efficient organisation with 47 staff, administering over 700 live awards with €343 million of future commitments and yearly commitments of €150 million. The total administration costs of SFI represent approximately 3.5% of its total budget. This puts SFI best in class internationally: comparable figures in other national science funding agencies range between 5 and 15%. SFI is also best in class by a number of other international benchmarks. For example, it leads on important research agendas concerning impact, integrity, industrial collaboration and efficiency, as evidenced not only by leadership positions in international fora but also by other countries adopting strategies and schemes developed by SFI, e.g. impact assessment.

The legal remit of SFI was expanded in 2013 by the passage of the Industrial Development (SFI) Amendment Act, as summarised in the Chairman's Statement.

A major development during 2013 was the announcement of the seven successful applications to SFI's Research Centre Programme. The key objectives of the SFI Research Centres programme are to:

- ▶ Develop a set of world-leading, large-scale Research Centres that will provide major economic impact for Ireland
- ▶ Achieve, maintain and enhance research excellence and leadership
- ▶ Increase the level of industrial and commercial investment in R&D activities with existing Irish-based companies
- ▶ Attract large Foreign Direct Investments in corporate R&D centres
- ▶ Spin-out new, high-tech start-up companies and grow existing SMEs
- ▶ Leverage non-exchequer funding

These seven Research Centres are:

- ▶ AMBER (Advanced Materials and Bio-Engineering Research)
- ▶ APC (Alimentary Pharmabiotic Centre)
- ▶ INFANT (Irish Centre for Fetal and Neonatal Translational Research)
- ▶ Insight (Centre for Big Data Analytics)
- ▶ I-PIC (Irish Photonic Integration Centre)
- ▶ MaREI (Marine Renewable Energy Ireland)
- ▶ SSPC (Synthesis and Solid State Pharmaceutical Centre)

These Centres represent the largest ever Government/Industry co-funded research investment of its kind in Ireland with €200 million of new exchequer funds from SFI over six years matched by over €100 million of co-investment by 150 industry partners including both multinational companies and SMEs. These Research Centres support key growth areas targeted in the National Research Prioritisation Exercise Report and also in the Action Plan for Jobs, e.g. Big Data Analytics. The Centres also target research into major societal challenges

Delivering disruptive innovation in digital media and intelligent content

including health and energy. These Centres will directly support over 800 top class researcher positions, at least half of which are classed as high value jobs. Moreover, it is anticipated that the Centres will, during their lifetime, leverage additional non-exchequer (e.g. industrial, EU, etc.) funding, which, if targets are met, would lead to the creation of an additional 1,000 jobs.

These SFI Research Centres were reviewed by outstanding international experts, not only in scientific research but also in its commercial translation. They are therefore amongst the best in class internationally, both for excellent cutting edge research and additionally impact into the economy and society. These Centres will be able to grow and adapt to change through the SFI Spokes programme, which is a mechanism to support the expansion and sustainability of the SFI Research Centres, and to keep them competitive.

The Spokes programme allows new industry partners, new academic partners, new research projects and new capabilities to be added to each Centre. Additionally, shared Spokes programmes will allow the development of strong linkages between each of the Centres. The Spokes programme includes an annual competitive call against a fixed budget, together with an industry friendly rolling call, where applications will be considered at any time and reviewed on a fast track timetable.

SFI intends to expand the Research Centres Programme in 2014 and has issued a call for proposals in thematic areas of national priority.

The SFI Research Centres, with their significant involvement of, and co-funding by, industry, represent one important strand of SFI's agenda of developing the academic/ industrial research interface in Ireland, focusing on excellence and impact.

Further important developments of this interface during 2013 were the launch of the SFI Partnership Programme and the first round of funding through the SFI Industrial Fellowship Programme. The SFI Industrial Fellowship Programme allows any of the researchers funded by SFI to submit a proposal to spend up to one year working on a collaborative research project in industry anywhere in the world. The Fellowships also allow for industrial colleagues to work within Irish academic research laboratories.

CNGL is an academia-industry research consortium dedicated to delivering disruptive innovations in digital media and intelligent content such as multilingual content analysis.

Supported by SFI, CNGL's economic and social impact to date includes seven spinout companies, Digital Linguistics, emizar, Iconic Translation Machines, Scream Technologies, Wripl, Xcelerator (KantanMT); €1.25 million in venture capital raised; the creation of 30 new high-value jobs for Ireland and the attraction of a further €7 million in funding from non-exchequer sources, including 15 large-scale European Union-funded projects.

CNGL held a showcase of its research which combines the expertise of world-leading researchers at four universities (Trinity College Dublin, Dublin City University, University College Dublin and University of Limerick) with its partners in Microsoft, Symantec, Intel, McAfee, Cisco, DNP, Xanadu, Welocalize, Alchemy Software Development, VistaTEC, and many other industry leaders.

Prof Vincent Wade, Director of CNGL, outlined how CNGL research focuses on both the challenges and opportunities associated with the explosion of content. CNGL is helping companies to make the most of their content in order to engage with their global customers better than ever before, tailor information and delivery strategies to enable global reach, detect fraud, manage risk, personalise education programmes, and deliver multilingual customer care."



Prof Mark Ferguson, Director General, SFI, CNGL researchers Sheila Castilho and Teresa Lynn, Minister for Small Business, Mr John Perry TD, and Prof Vincent Wade, Director, CNGL.

Director General's Statement cont'd

SFI hopes that this Industry Fellowship scheme will allow the development of a good academic/ industrial research ecosystem and will provide an important career development pathway for the approximately 2,600 people which SFI supports in Higher Education Institutes in Ireland each year.

Data from scientific funding agencies around the world show that approximately 90% of researchers supported by such agencies move on to employment in the private sector. This is an outstanding contribution to economic development and the SFI Industry Fellowship Programme represents an important career development pathway, particularly for junior researchers to experience industrial research anywhere in the world.

The scheme allows, for example, multinational companies to recruit outstanding researchers to generate preliminary research data which assist them to win a major mandate or investment from corporate HQ and then to expand research activities collaboratively in Ireland. Equally, the scheme allows small and medium enterprises, where most of the expenditure is on staff salaries, to engage in research activities to help further their business. The SFI Industry Fellowship scheme represents an important form of career development.

In 2013, SFI also launched calls to support researchers wishing to develop a research or academic career through the new Starting Investigator Research Grant (SIRG) and Career Development Awards (CDA) Programmes. These new programmes, together with the President of Ireland Young Researcher Award (PIYRA) and Fellowship opportunities, in collaboration with the Wellcome Trust, represent a major commitment by SFI to providing opportunities for the development of outstanding young researchers in Ireland.

The output from and impact of SFI-funded research is impressive. During 2013, SFI directly supported 2,656 people in Ireland with many of these classed as high value jobs. SFI-funded researchers in turn leveraged an additional €125 million of funding, which is approximately equivalent to the funding provided by SFI, i.e. one to one leveraging. This in turn supported an additional 520 high value jobs.

These SFI-supported researchers have over 900 industrial collaborations with companies, both in Ireland and internationally. SFI researchers filed 54 patents, licenced 27 technologies to industry and created four spin out companies.

SFI Researcher of the Year 2013

Prof Fergus Shanahan, from University College Cork (UCC), was named SFI Researcher of the Year 2013 at the SFI Science Summit in November 2013. Professor Shanahan, who is one of the leading international experts in the area of gastrointestinal research, was presented with the award by Mr Seán Sherlock, TD, Minister for Research & Innovation in recognition of his significant contribution to understanding how intestinal bacteria influence both health and disease in the gut and beyond. Prof Shanahan is the Director of the Alimentary Pharmabiotic Centre (APC) an SFI-funded Research Centre.



Mr Seán Sherlock, TD, Minister for Research and Innovation, Prof Fergus Shanahan, Director, APC, UCC and Prof Mark Ferguson, Director General, SFI.

Putting ultra-thin materials into a wider context

SFI-supported researchers have 1,955 national and international collaborations in over 48 countries and published 2,237 scientific papers during 2013.

This output contributes significantly to Ireland's international reputation. Evidence for this is the high ranking of Ireland in international scientific citation indices. In 2013, Ireland was rated first in immunology, third in nanotechnology, fourth in computer science and sixth in materials science: a remarkable achievement for a small country.

Irish researchers supported by SFI won €56 million of competitive research funding from European Union programmes and further opportunities will be available in future years through the new EU Horizon 2020 programme. SFI has established a number of mechanisms to encourage and support applications to Horizon 2020. These include support for applicants to the European Research Council schemes, important career development (SIRG, CDA, PIYRA) and investigator programmes (IVP) which act as feeders to subsequent significant applications for EU funding, and new collaboration agreements with Northern Ireland and the UK.

Perhaps less well known is the modest support (approximately €500,000) which SFI provides to Irish researchers to organise scientific conferences and workshops in Ireland, which vary in scale from small to large. These conferences and workshops allow for exchange of scientific information and debate and are an important part of catalysing research advances, both in academia and industry, nationally and internationally. SFI conferences and workshop awards funded in 2013 will bring approximately 7,000 international delegates to Ireland, who will contribute an estimated €8 million to the local economy.

SFI enhanced its STEM (Science, Technology, Engineering and Mathematics) outreach activities in 2013 with more than 1,450 media reports, 775 public lectures and 763 school visits. Participation in Science Week expanded considerably in 2013, both in terms of absolute numbers and regional coverage within Ireland, making it the most successful Science Week to date.

Important evidence that SFI-funded researchers form a key part of the Irish enterprise ecosystem is shown in a sample of job data.



▲ Prof Valeria Nicolosi

Sometimes it's good to get out of the lab and get a fresh perspective. And for SFI-funded researcher Prof Valeria Nicolosi, a long-haul trip to China to take part in a World Economic Forum event did just that. Prof Nicolosi, a European Research Council (ERC) Research Professor at the AMBER SFI Research Centre in Trinity College Dublin, was invited to the Annual Meeting of the New Champions in Dalian, China, in September 2013. The event brought scientists, politicians and businesspeople together to discuss technologies in areas such as new materials, health, drug delivery and medical devices and how they could be used to tackle grand societal challenges. The ERC asked Prof Nicolosi to take part in Dalian to explain her research and discuss its implications. "I was there as one of the young scientists, and there were also young global leaders, young global shapers, politicians and CEOs of the biggest companies there too," she says.

Prof Nicolosi's own research looks at the possibilities of using ultra-thin 'two-dimensional' materials, just a single atom thick, in devices that store and release energy. By generating nano-flakes of the materials, she is increasing their surface area and taking advantage of their new physical and chemical properties to store and release energy efficiently.

Small Advanced Economies Gather in Dublin to Discuss Research Impact and Metrics



Prof Mark Ferguson, Director General, SFI, Mr Philip Ong, Deputy Chief Executive Officer, National Research Foundation, Prime Minister's office, Singapore, Dr Peter Crabtree, General Manager, People, Science and Enterprise Policy branch, Science, Skills & Innovation Group, Ministry of Business, Innovation and Employment, New Zealand and Sir Peter Gluckman, Chief Science Advisor to the New Zealand Prime Minister.

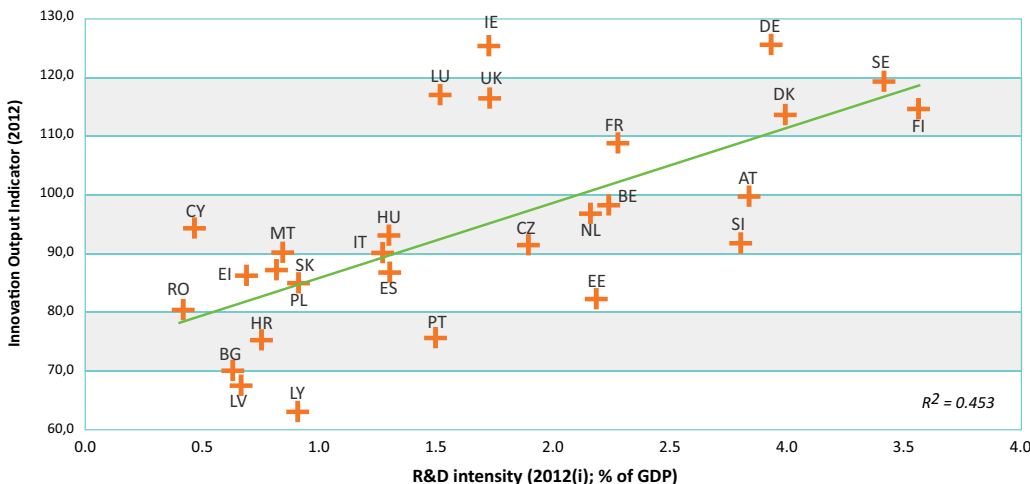
An international working group from six of the world's small advanced economies (New Zealand, Singapore, Israel, Denmark, Finland and Ireland) met in Dublin in September. The meeting, was hosted by SFI and discussed the potential development of common metrics to help measure the impact of scientific research in similarly sized small countries.

During 2013, SFI and SFI-funded researchers had prior links to the companies which are related to 40% (2,588) of the 6,449 jobs featured in IDA's 2013 press releases in all fields. Of course, the total number of jobs include areas which do not fall within SFI's legal remit. If one restricts the analysis to the fields covered by SFI's legal remit, then SFI and SFI researchers have links to the companies related to 64% (1,988) of the 3,085 jobs featured in those projects within SFI's remit. Moreover, SFI researchers have links to almost 300 SMEs within Ireland. Such links are often critical in founding and growing SMEs, facilitating, for example, financing from venture capital and other sources.

2013 was the first year for the collection of an important new set of output and impact metrics via our online SESAME system. This facilitates future analysis of programmes, impact and return on investment by an efficient data collection system, which allows us to dispense with the previous annual survey and census.

During 2013, SFI undertook considerable international benchmarking, particularly as part of the Six Small Advanced Economies Initiative (New Zealand, Singapore, Israel, Denmark, Finland and Ireland). These international benchmarking analyses are important: to set targets, to learn from initiatives in other countries, and for Ireland to demonstrate leadership in areas such as research impact assessment.

Table 1: Ireland (IE) is the most R&D efficient country in the EU, extracting the top percentile innovation output from a below average public expenditure on R&D.



Source: DG Research and Innovation - Analysis and Monitoring of national research policies unit
 Data: Eurostat, OECD, IUS 2014, UN (Comtrade)
 Notes (1) LU: 2010

Additional benchmarking analyses, e.g. by the European Union, show Ireland to be the most R&D efficient country in the EU. Ireland extracts top percentile innovation output from a below average public expenditure on R&D, as illustrated in Table 1 which is reproduced from EU DG Research and Innovation Eurostat Data analysing and monitoring national research policies.

This efficiency is something everyone should be proud of but, of course, we should strive to do even better. However, we are starting from an excellent base. In that regard I would like to pay significant tribute to the outgoing Chairman of SFI, Prof Pat Fottrell, who served in this role, with distinction, from the early days of SFI. Under Prof Fottrell's guidance and the hard work of previous Boards, Directors General and staff, SFI and the research community in Ireland have grown significantly in quality and quantity over the past 12 years.

This year also saw the retirement of two long standing Board members: Dr Jim Mountjoy and Prof Martina Newell-McLoughlin, who again gave distinguished service to SFI. I would like to thank them and all of the staff and Board members of SFI for the commitment, enthusiasm and hard work which they put in to achieving the objectives of the Foundation. I would also like to welcome Ms Ann Riordan as the new Chairman of SFI, and new Board members, Mr Aidan Donnelly and Ms Geraldine Ruane, who bring considerable diverse experience to help and guide the Foundation.

Working with the research community, both academic and industrial, SFI intends to continue to develop and support programmes that fund excellent scientific research with impact, into the economy and society. One such initiative will be an increased focus on recruiting outstanding research leaders to Ireland through the SFI Research Professorship Programme.

This commenced in 2013 with the recruitment of the first individual under this scheme, Prof Michael Zaworotko to the Bernal Chair of Crystal Engineering at the University of Limerick. We are delighted that Prof Zoworotko has relocated from the USA to Ireland. He is a leading international expert on crystallisation and co-crystallisation, scientific research topics of major importance to the pharmaceutical manufacturing industry which contributes significantly to Ireland's GDP.

Prof Zoworotko is an outstanding researcher, among the top 20 most cited chemists in the world. He has enjoyed significant collaborative interactions with many major international pharmaceutical companies. We look forward to welcoming more outstanding researchers to Ireland under our Research Professorship Scheme in the coming years.

As promised, at the end of 2013, SFI published a review of how it and the research community are performing with respect to the key performance indicators outlined in SFI's strategic plan, Agenda 2020. This 2013 review showed that we were on target for most KPIs, but also highlighted some areas where we need to put more focus, e.g. recruitment of a Nobel Prize winner to Ireland or where they may be risks, e.g. from other countries investing significantly more in publically funded R&D (as a percentage of GDP) and thus displacing some of Ireland's high ranking. In that regard the benchmarking conducted to date, including the independent benchmarking by the EU referred to above, (which shows Ireland to be the most efficient EU country in R&D expenditure), together with analysis of past performance, (for example as summarised in this annual report for 2013), would indicate that a modest increase in SFI's budget should produce disproportionately large positive results; SFI and its research community look forward to testing this hypothesis and exceeding expectations in future years.



Professor Mark WJ Ferguson
Director General, SFI
and Chief Scientific Adviser
to the Government of Ireland

2013

Overview of Key Milestones

JANUARY

- ▶ SFI participated in the BT Young Scientist Competition & Exhibition 2013
- ▶ Funding of 85 Investigator Programme awards totalling €60 million which will directly support 250 researchers through to 2018
- ▶ CRANN took a lead role in a €1 billion EU research project on Graphene



⋈ Colm O'Neill, CEO, BT Ireland, Emer Hickey, Sophie Healy-Thow and Ciara Judge, from Kinsale Community School Cork and Mr Ruairi Quinn, TD, Minister for Education and Skills.

FEBRUARY

- ▶ €300 million investment in seven SFI Research Centres - largest ever combined state/industry co-funding research announcement of its kind in Ireland
- ▶ SFI and Teagasc signed the "Future Agri-Food" agreement
- ▶ SFI hosted a Joint Programming Conference as part of the Irish Presidency of the Council of the EU
- ▶ A team from Banbridge Academy, Co. Down won the Debating Science Issues Final
- ▶ SFI/EI Technology Innovation Development Award (TIDA) Feasibility Study call opened



⋈ Mr Seán Sherlock, TD, Minister for Research and Innovation, Prof Mark Ferguson, Director General, SFI and Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation.

MARCH

- ▶ An Taoiseach, Enda Kenny, TD, announced the establishment of the SFI St. Patrick's Day Science Medal in Washington
- ▶ Minister Bruton launched Re-Play, a €2 million research project funded by EU FP7, which involves scientists from Ireland, Spain, UK, Switzerland and Greece
- ▶ The first of 15 regional SciFest Science Fairs took place in Dublin
- ▶ Lero, the Irish Software Engineering Research Centre, expanded its international research programme with United Technologies Research Centre Ireland

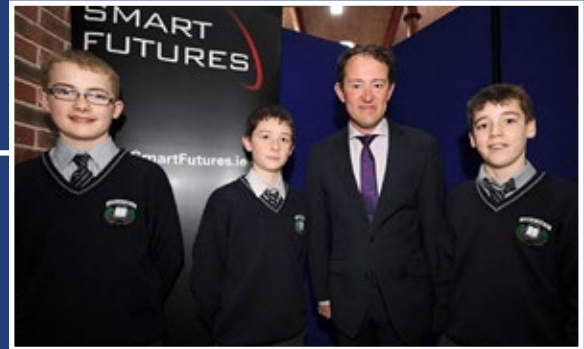


⋈ An Taoiseach, Enda Kenny TD.

APRIL

- ▶ Smart Futures STEM Careers Week took place
- ▶ SFI Industry Fellowships Programme call opened
- ▶ RTÉ Archives announced collaboration with SFI Research Centre INSIGHT and the Digital Repository of Ireland (DRI), to develop a content discovery platform to open up RTÉ Archives

⇩ Mr Seán Sherlock, TD, Minister for Research and Innovation with students participating in Smart Futures.



MAY

- ▶ SFI's Technology Innovation Development Award (TIDA) Programme awards announced
- ▶ A new research partnership "Graduate Research Opportunities Worldwide" (GROW) between SFI and the National Science Foundation (NSF) in the US announced
- ▶ Lero – the Irish Software Engineering Research Centre was invited to present nine papers at the International Conference on Software Engineering, (ICSE 2013) in California



⇩ Prof Mark Ferguson, Director General, SFI, Mr Seán Sherlock TD, Minister for Research and Innovation, Prof Tia Keyes, DCU and Dr Nick Bennett, DCU pictured at TIDA announcement.

JUNE

- ▶ Funding of €50 million announced by SFI Research Centre, Alimentary Pharmabiotic Centre (APC)
- ▶ Ireland highlighted as one of five upcoming countries in the world to watch for scientific research excellence by Nature magazine
- ▶ Brian Corbett, Tyndall National Institute, receives the Intel Outstanding Researcher Award 2013
- ▶ 491 primary schools nationwide received an Award of Science & Maths Excellence as part of the Discover Primary Science & Maths Programme



⇩ Prof Fergus Shanahan, Director of APC, UCC, Prof Mark Ferguson, Director General of SFI and Mr Seán Sherlock TD, Minister for Research and Innovation.

2013

Overview of Key Milestones

JULY

- ▶ Funding of €40 million to the SFI Research Centre Synthesis & Solid State Pharmaceutical Centre (SSPC) based in University of Limerick announced
- ▶ Inaugural Festival of Curiosity took place in Dublin

✧ Dr Mary Shire, Vice President Research, UL, Mr Michael Noonan, TD, Minister for Finance, Prof Don Barry, President of the University of Limerick and Jan O'Sullivan, TD, Minister for Housing and Planning.



AUGUST

- ▶ Researchers at UCC developed an electronic early-warning scorecard to help medical staff identify deteriorating patients which may improve patient outcomes
- ▶ Prof Paul Moynagh and team at NUI Maynooth identify breakthrough for inflammatory bowel disease
- ▶ SFI Career Development Award (CDA) Programme and SFI Starting Investigator Research Grant (SIRG) Programme calls opened



✧ Dr Simon Woodworth, Senior Researcher at the HISRC at UCC, demonstrating the platform to nurses in St Luke's Hospital, Kilkenny.

SEPTEMBER

- ▶ Ireland's first centre for perinatal research, Irish Centre for Fetal and Neonatal Translational Research (INFANT) announced with funding of €13.6 million
- ▶ Prof Michael Zaworotko, who is among the top 20 research chemists in the world, appointed as Bernal Chair of Crystal Engineering University of Limerick
- ▶ SFI hosted an international working group from six of the world's small advanced economies (New Zealand, Singapore, Israel, Denmark, Finland and Ireland)
- ▶ Minister for Communications, Energy and National Resources, Pat Rabbitte, TD, opens a showcase of telecommunications research developed by the telecommunications research centre, CTVR



✧ Prof Mark Ferguson, Director General, SFI, Prof Patrick Prendergast, Provost, TCD, Mr Pat Rabbitte, TD, Minister for Communications, Energy and National Resources, and Prof Linda Doyle, Director of CTVR.

OCTOBER

- ▶ Tyndall National Institute launched AgriSense, a US-Ireland animal health research project
- ▶ Mr Richard Bruton, TD, Minister for Enterprise, Jobs and Innovation, announced funding of €58 million in SFI Research Centre - Advanced Materials and BioEngineering Research (AMBER)
- ▶ Ireland's Ambassador to Great Britain, Dan Mulhall, hosted a special networking event in London with representatives from Ireland's biomedical research community and the UK based Wellcome Trust
- ▶ SFI and industry invested €19.8 million in CNGL (Centre for Global Intelligent Content) intelligent content research
- ▶ Industrial Development (Science Foundation Ireland) (Amendment) Act 2013 signed in to law



⤴ Dr Alan O'Riordan, Tyndall National Institute; Dr Riona Sayers, Teagasc, and Kieran Drain, CEO, Tyndall, at the launch of AgriSense in Cork.

NOVEMBER

- ▶ €29 million of funding announced in the SFI Research Centre, Marine Renewable Energy Ireland (MaREI) at UCC
- ▶ Science Week 2013, 'Exploring the XTRA-Ordinary' takes place
- ▶ Over 300 researchers attend SFI Science Summit - Delivering 2020
- ▶ Prof Fergus Shanahan, UCC, named SFI Researcher of the Year
- ▶ Student Paul Clarke, wins the top prize at SciFest@SFI Discover 2013



⤴ Michael Murphy, President UCC, Prof Mark Ferguson, Director General, SFI, Minister for Research and Innovation, Seán Sherlock, TD and Prof Tony Lewis MaREI Interim Director.

DECEMBER

- ▶ €88 million of funding announced in SFI Research Centre, Insight, the Centre for Data Analytics
- ▶ RCSI Led EU Consortium receives €8.7 million in funding to develop materials to regenerate cardiac tissue following heart attacks
- ▶ Ann Riordan appointed Chairman of SFI
- ▶ SFI Discover call funds six strategic education and outreach projects



⤴ Kevin Sweeney, Post Doc, Insight with Oonagh Giggins, PhD, Insight, Minister for Research and Innovation, Mr Seán Sherlock, TD, and Minister for Jobs, Enterprise and Innovation, Mr Richard Bruton TD.

2013

Overview of Activities

2013 marked the first full year of the implementation of SFI's Strategic Plan, Agenda 2020, which couples scientific research excellence with impact to ensure that the state's investment in scientific research is realised for the betterment of the Irish economy and society.

Excellent Research with Impact

SFI supported approximately 2,600 people in Ireland including 451 lead researchers in 2013.

SFI-funded awards resulted in 2,237 publications in 2013.

Of the total number of publications from active awards, 40% have an international co-author. 50% of publications are available in open access repositories.

Pain Researchers Win Prize for Best Research Paper



Dr David Finn, Leader of the Galway Neuroscience Centre, Co-Director of the Centre for Pain Research at NUI Galway.

In March 2013, Dr David Finn of NUI Galway, was awarded the Royal Academy of Medicine in Ireland's Doctor Award for best research paper published in an indexed journal in 2012, in the Pain/Anaesthesia category.

The paper was published in the British Journal of Pharmacology.

Ireland maintained its position in the international ranking of top 20 countries for scientific research capability.

Country Ranking (Thomson Reuters) Listed by Citations per Paper

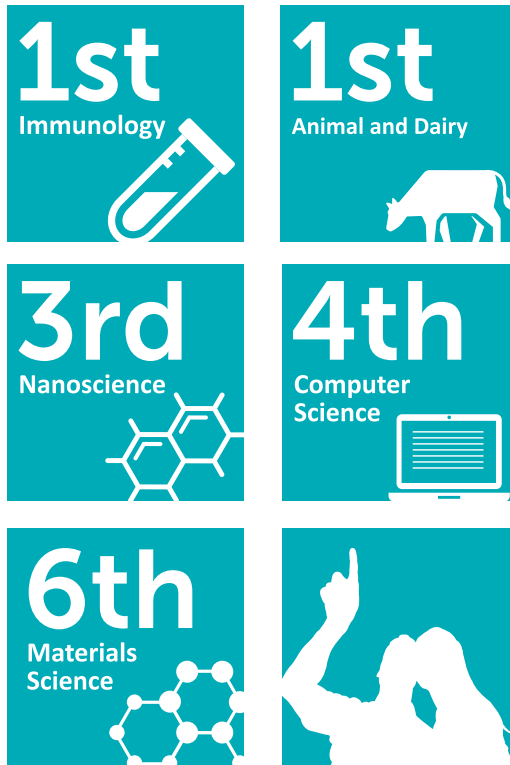
1	SWITZERLAND
2	DENMARK
3	USA
4	NETHERLANDS
5	SCOTLAND
6	ENGLAND
7	SWEDEN
8	BELGIUM
9	FINLAND
10	GERMANY
11	CANADA
12	AUSTRIA
13	ISRAEL
14	NORWAY
15	WALES
16	FRANCE
17	AUSTRALIA
18	ITALY
19	NORTHERN IRELAND
20	IRELAND

Source: Essential Science IndicatorsSM from Thomson Reuters

Over the past number of years, through SFI investment, Ireland's position in the international ranking of scientific research capability has remained strong. In particular Ireland's standing in the following areas:

- 1st** Immunology
- 1st** Animal and Dairy
- 3rd** Nanoscience
- 4th** Computer Science
- 6th** Materials Science

Citation per Paper (OECD Countries), InCites



Ireland received a special mention by Nature magazine, the eminent scientific journal, as one of five 'Up and Coming' destinations for high level research based on the quality and quantity of scientific research being carried out in Ireland's research institutes.

This highlights Ireland's respected international profile among the global science community and shows clear value and recognition of the research being funded.

Enterprise Development, Economic Recovery and Job Creation

A major highlight of 2013 was the launch of seven SFI Research Centres which marked the largest State public/private research partnership of its kind in Ireland. The SFI Research Centres have cash and in-kind contributions from over 150 industry partners and directly support over 800 jobs. The Centres create an innovative environment that is both conducive to the development of new Irish-based technology companies and attractive to existing industries.

Mathematics Problem-Solving Workshop with Industry



Dr Patrick Walsh, CEO, Limerick Wave Ltd and Patrick Kelly demonstrate their marine energy technology to Mr Seán Sherlock, TD, Minister for Research and Innovation at the Mathematics Applications Consortium for Science and Industry (MACSI) hosted problem-solving challenge for industry.

In June, the Mathematics Applications Consortium for Science and Industry (MACSI), UL, launched the 93rd European Study Group with Industry (ESGI). This was a week-long intensive problem-solving challenge for industry.

Study group problems can come from a wide range of industry areas including energy, agriculture, banking, medicine and transport, and include optimising delivery to consumers to analysing how water drips through a coffee percolator. Each problem has the potential to be cracked using mathematics as a tool to analyse and solve it.

The study group had a particularly strong participation from SMEs in 2013, and attracted over 90 academics from all over the world, who worked together on solving problems that companies presented and which will have a direct economic impact.

Companies which submitted a challenge to the study group included RUSAL Aughinish Alumina, Europe's largest alumina refinery; Electricity Exchange, a virtual power plant; and Limerick Wave, a local marine energy start-up.

SFI Research Centres

The SFI Research Centres form a key part in SFI's ambitious Agenda 2020 plan.

SFI has committed **€200 million** to the centres to support research of scale, excellence and impact.

SFI now has seven cutting-edge research centres throughout the country, supporting **800** researchers.

The centres will work with over **150** industry partners.

Industry is projected to commit in order of **€100 million** over the next six years to these centres to execute cutting-edge, world-class research.



Advanced Materials and BioEngineering Research Centre (AMBER)

Budget €50.5m (SFI €27.3m, Industry €23.2m)

- ▶ Development of enhanced nanoscale electronic devices for data processing and memory applications
- ▶ New materials to support innovation in medical devices and delivery systems, implants based on novel therapies, and regenerative tissue engineering
- ▶ Novel materials for new products in areas such as the bottling industry, solar energy, medical devices, medical diagnostics, and chemical and biological filtration
- ▶ Novel formulations and packaging to improve the distribution of pharmaceuticals.

Industry partners include Intel, DePuy, Medtronic, Thomas Swan, Sigmoid, Eblana, Western Digital and SAB Miller

Academic partners include lead institution Trinity College Dublin, University College Cork and the Royal College of Surgeons in Ireland.

www.ambercentre.ie



Alimentary Pharmabiotic Centre (APC)

Budget €42.6 (SFI €28m, Industry €14.6m)

- ▶ Gut microbiota and health status
- ▶ Health-promoting bacteria and food constituents for incorporation into 'functional foods' for improved health
- ▶ Novel bioactives to treat intestinal and infectious diseases
- ▶ Societal issues: disease prevention, improved cognition and healthy ageing

Industry partners include Kerry Group, Suntory, Cremo, General Mills, Alimentary Health.

Academic partners include lead institution University College Cork and Teagasc (Ireland's Agriculture & Food Development Authority).

www.apc.ucc.ie



Centre for Data Analytics (Insight)

Budget €75.1m (SFI €44.4m, Industry €30.7m)

- ▶ Data analytics
- ▶ Machine learning and data mining
- ▶ Media analytics and optimisation
- ▶ Optimisation and decision analytics
- ▶ The semantic web, linked data, and the sensor web
- ▶ Connected health

Industry partners include RTÉ, Cisco, Microsoft, Sports Surgery Clinic, the IRFU, TE Labs, TreeMetrics, NitroSell, Avego, Fujitsu, Adidas, Shimmer and many more.

Academic partners Insight is a joint initiative between DCU, NUI Galway, UCC and UCD and other partner institutions.

www.insight-centre.org

NANOTECH

PERINATAL RESEARCH

MARINE RENEWABLE ENERGY

BIG DATA

MATERIALS TECHNOLOGY FUNCTIONAL FOODS PHARMA FOOD FOR HEALTH



Institute of Fetal and Neonatal Translational Research (INFANT)

Budget €12m (SFI €6m, Industry €6m)

- ▶ Perinatal research
- ▶ Novel screening and diagnostic tests
- ▶ Novel methods of monitoring pregnancy and newborns

Industry partners include Waters Corporation, IBM, Incereb, Inspiration Healthcare, Kvikna, Pfizer, BrepCo Pharmaceutical, Alere, MedSci Net, Newsweaver.

Academic partners include lead institution University College Cork and Royal College of Surgeons in Ireland.

www.infantcentre.ie



Irish Photonic Integration Research Centre (I-PIC)

Budget €23.2m (SFI €15.2m, Industry €8m)

Photonic Device and System Integration Strategies for applications such as:

- ▶ Point-of-Care Diagnostics
- ▶ Advanced telecommunications networks
- ▶ Cell and Tissue Analysis

Industry partners include Intel, British Telecom, Somex, InfiniLED, Radisens, Firecomms, Luxcel Biosciences, X-Celeprint, Eblana, Pilot Photonics, M/A-COM.

Academic partners include lead institution Tyndall National Institute and University College Cork, Cork Institute of Technology (CIT) and Dublin City University (DCU).

www.ipic.ie



Marine Renewable Energy Ireland (MaREI)

Budget €25m (SFI €14.7m, Industry €10.3m)

- ▶ Marine renewable energy devices
- ▶ Novel materials for marine renewable energy systems
- ▶ Power take off and energy storage for marine renewable energy systems
- ▶ Marine renewable energy decision support and data management

Industry partners including ESB Energy International, DePuy, Shell, E&P Ireland Ltd, Marsh Technology, SSE Renewables, Techworks marine and many other global market leaders and indigenous SMEs in the area of energy, marine technology, software and hardware.

Academic partners include lead institution University College Cork and University College Dublin, Cork IT, University of Limerick, NUI Galway, NUI Maynooth, Marine Institute and Teagasc.

www.marei.ie



Synthesis & Solid State Pharmaceutical Centre (SSPC)

Budget €31.8m (SFI €22m, Industry €9.8m)

- ▶ New frontiers in pharmaceutical synthesis
- ▶ Crystal growth and design
- ▶ Drug product formulation and manufacture

Industry partners include Pfizer, GlaxoSmithKline Eli Lilly SA, Janssen Pharmaceuticals, Merck Sharpe & Dohme, Bristol Myers Squibb, Roche Ireland, Alkermes, Abbvie, UCB (Schwarz Pharma), APC Limited, Scale-Up Systems, Clarochem Ireland, Innopharma Labs, Eirgen Pharma Ltd, Glantreo, Amebis.

Academic partners include lead institution University of Limerick and TCD, UCC, UCD, Athlone IT, Waterford IT and NUI Galway.

www.ul.ie/sspc

Three recipients of the 2013 PIYRA awards in Áras an Uachtaráin



Dr Carel Le Roux, Dr Valeria Nicolosi, President of Ireland Michael D Higgins, Dr Matthew Campbell and Prof Mark Ferguson, Director General, SFI.

The President of Ireland Young Researcher Award (PIYRA) is SFI's most prestigious award to recruit and retain outstanding young researchers. This programme emphasises the importance that SFI places on the early development of research careers. The award recognises outstanding engineers and scientists who, early in their careers, have already demonstrated or shown exceptional potential for leadership at the frontiers of knowledge. In 2013, SFI made three PIYRA awards to Drs Carel Le Roux, Matthew Campbell and Valeria Nicolosi.

SFI launched three new industry-facing programmes in 2013:

- ▶ SFI Research Centre Spokes Programme provides a mechanism for new industry partners to join the existing SFI Research Centres.
- ▶ SFI Industry Fellowship Programme to support and develop academic relationships with industry through exchanges between academia and industry in Ireland and abroad.
- ▶ SFI Strategic Partnership Programme aimed at funding compelling research opportunities on a flexible basis. The scheme aims to support standalone initiatives of scale with strong potential for delivering economic and societal impact to Ireland.

In 2013, there was a significant investment of €9.7 million in 83 new SFI Technology Innovation Development Awards (TIDA) applied research projects. The SFI TIDA Programme, in collaboration with Enterprise Ireland, enables researchers to focus on the first steps of an applied research project. Another facet of the TIDA programme is the entrepreneurship training that is delivered by the DCU Ryan Academy for Entrepreneurship. The numbers attending the course have increased significantly over the past three years with 70 individuals trained in 2013.

Pre-commercial outputs from SFI-funded researchers attributed to SFI awards continue to be strong in 2013 and include:

- ▶ 4 spin out companies
- ▶ 27 licence agreements
- ▶ 54 patents filed
- ▶ 11 patents awarded
- ▶ 8 patents were identified as having been exploited (for example through licences or spin outs)
- ▶ 3 standards contributed

SFI researchers reported over 1,800 collaborations with industry in 2013, 901 of which were linked directly to their SFI award; 460 with multinational corporations and 441 with SMEs. The two main reasons for these collaborations cited by SFI researchers included:

- (1) learning about and/or testing the potential of ideas and options for possible new directions of future R&D (33%) and
- (2) providing a flexible and cost-effective extension of the R&D resources available to the organisation (32%).

Supporting the Development of Early Career Researchers

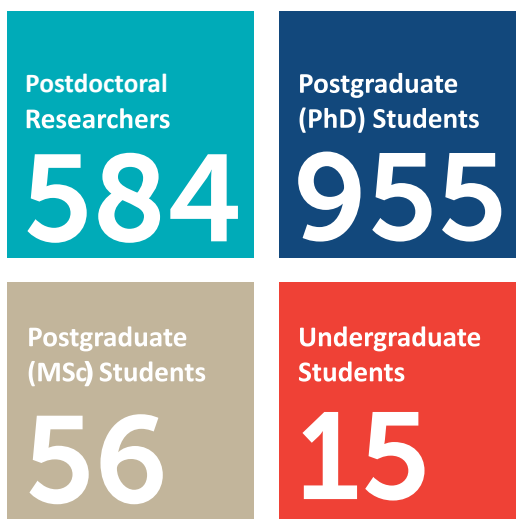
SFI is committed to supporting and developing early- and mid-career researchers with the greatest potential to become excellent, fully independent research leaders. In 2013 SFI managed a comprehensive suite of funding programmes to achieve this objective. SFI re-launched the Starting Investigator Research Grant (SIRG) Programme and for the first time launched a new programme targeting early and mid-career investigators who hold faculty positions, the Career Development Award (CDA). These added to the existing SFI suite of early and mid-career investigators schemes that include the President of Ireland Young Researcher Award (PIYRA), the Wellcome Trust Research Career Development Fellowship (RCDF), the SFI Industry Fellowship Programme and TIDA feasibility training.

SFI partnered with the Irish Research Council (IRC) on an IRC employment based programme providing PhD students and postgraduate researchers with an employment-focused educational experience.

Furthermore, in 2013, SFI launched the SFI Internship Programme that has provided young researchers with the opportunity to work in the grant administration and policy sectors of SFI.

Research Team Compositions

In 2013, SFI teams supported 1,610 early and mid-career researchers.



SFI St Patrick's Day Science Medal



An Taoiseach, Enda Kenny, TD, during the St Patrick's Day programme in Washington DC.

To encourage and recognise the contributions and engagement by the Irish Diaspora to science, technology, engineering and mathematics, The Taoiseach, Enda Kenny TD, launched the call for submissions for the SFI St. Patrick's Day Science Medal in Washington at the annual St. Patrick's Day reception in March 2013.

The Medal is awarded to a distinguished Irish scientist, engineer or technology leader living and working in the USA.

This initiative builds on SFI's relationship with the scientific diaspora networks notably the Wild Geese Network of Irish Scientists and the Irish Technology Leaders Group (ITLG).



Fostering relationships between the Irish biomedical research community and the Wellcome Trust

SFI-HRB Wellcome Trust Networking Event. Prof Mark Ferguson, Director General, SFI, Mr Dan Mulhall Ambassador at Embassy of Ireland, London, Prof Jeremy Farrar, Director of the Wellcome Trust and Enda Connolly, Chief Executive of the Health Research Board (HRB).

Enhancing Ireland's International Reputation

Ireland's reputation as a location for world class research continues to grow. In 2013 there were over 1,955 academic collaborations, 71% of which were with international partners. The international collaborations cover most of the globe. The largest number are with European academic institutes (62%), with North America and Asia comprising 27% and 6% respectively.

SFI-funded researchers reported a total of 3,996 publications in 2013. Of these, 2,237 publications were attributed to SFI awards, 40% of which were co-authored with international colleagues. These collaborations provide a good basis for building partnerships under Horizon 2020.

SFI-funded researchers were involved in the organisation of 715 national and international conferences and workshops in 2013. 417 of these were in Ireland (58%), 193 were in Europe (27%) and 105 in countries outside of Europe (15%), including the United States (56 conferences) and China (15 conferences).

Number of National and International Conferences 2013

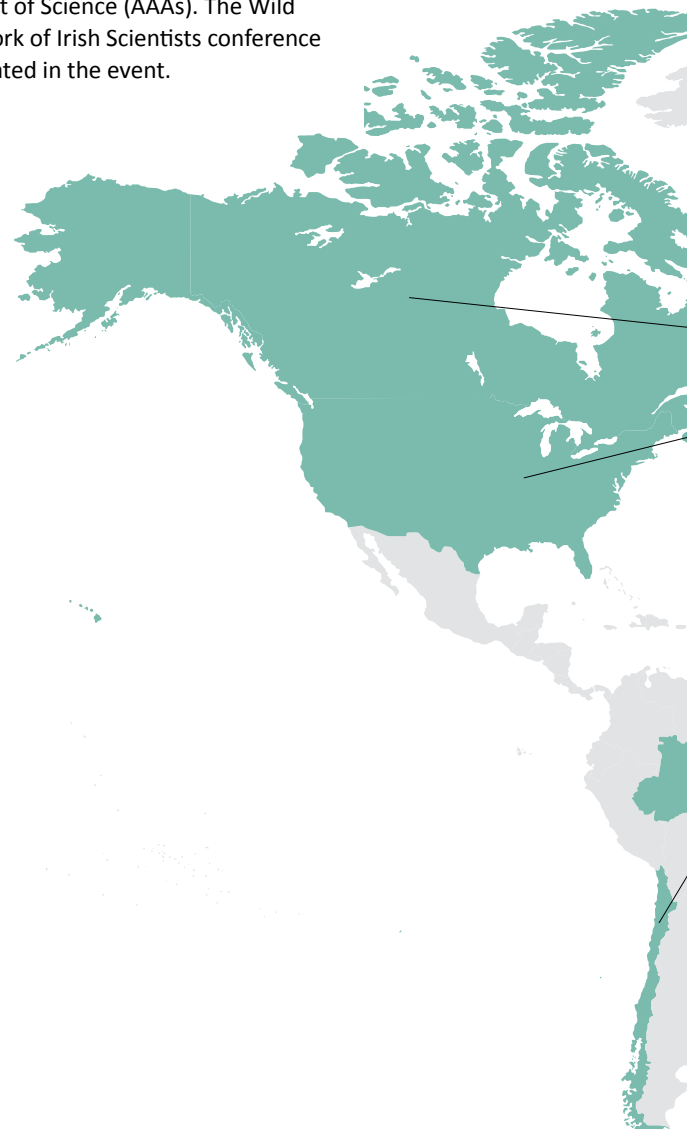
417	193	105
58% Ireland	27% Europe	15% Rest of World

In addition, the SFI Conference and Workshops Programme funded 55 conferences, workshops and public engagement and outreach events in 2013.

The SFI International Strategic Cooperation Awards (ISCA) to consortia of Irish HEIs has begun to build strategic partnerships with China, Brazil, and India. The 2013 iteration of the ISCA call aimed to strengthen these partnerships and build new partnerships with Japan, thereby enhancing Ireland's reputation as a location for world-class research and a state that actively supports and develops foreign direct investment.

SFI engaged in a number of International events throughout 2013:

- ▶ In February, SFI partnered with the Embassy of Ireland, Washington DC, and the US Office of the Science and Technology Advisor to the Secretary (STAS) to host an event on Networks of Diasporas in Engineering and Science (NODES). This is an initiative that seeks to develop science diaspora knowledge networks between the United States and other countries. This event was held during, and in association with, the annual American Association for the Advancement of Science (AAAs). The Wild Geese Network of Irish Scientists conference also participated in the event.



- ▶ SFI-HRB-Wellcome Trust Networking Event, October 2013. Ireland's Ambassador to Great Britain, Dan Mulhall, hosted a special networking event for representatives from Ireland's biomedical research community and the UK based global charitable foundation, the Wellcome Trust. The event was intended to help foster relationships between the Irish biomedical research community and the international funding body.
- ▶ An Taoiseach, Mr Enda Kenny TD made a Trade visit to Japan in early December. Prof Mark Ferguson travelled as part of the Irish delegation. Whilst in Japan, he met with Japan Science and Technology Agency (JST), the Japan Society for the Promotion of Science (JSPS), and the Council for Science and Technology Policy (CSTP). Prof Ferguson also spoke at a Green Energy Symposium organised with Japan External Trade Organization (JETRO) about research in Ireland in this area. The ISCA Japan consortium was launched during the Taoiseach's visit.

International Academic Collaborations by Country in 2013 (Attributed to Active SFI Census Awards)

Australia	34	Latvia	1
Austria	20	Luxembourg	1
Belarus	2	Netherlands	46
Belgium	21	New Zealand	14
Brazil	16	Northern Ireland	29
Bulgaria	1	Norway	5
Canada	45	Pakistan	1
Chile	2	Poland	7
China	28	Portugal	8
Czech Republic	5	Russia	2
Denmark	24	Saudi Arabia	5
Estonia	2	Singapore	11
Finland	17	Slovenia	5
France	91	South Africa	3
Georgia	1	Spain	54
Germany	124	Sweden	38
Greece	4	Switzerland	22
Hungary	2	Taiwan	2
India	11	Turkey	4
Iran	2	Uganda	1
Israel	3	United Kingdom	271
Italy	51	United States	323
Japan	12	Vietnam	2
Korea, South	9	Grand Total	1,383
Kuwait	1		



Irish Presidency combining National Research Programmes



Mr Seán Sherlock TD, Minister for Research and Innovation, Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn and Prof Mark Ferguson, Director General, SFI.

In February, SFI hosted the Joint Programming Conference 'Agenda for the Future & Achievements to Date'. This was a key event in Ireland's Presidency of the Council of the EU. The conference took place in Dublin Castle and was attended by over 320 delegates from 48 countries.

The conference brought together policy makers, national research funders, joint programming participants, researchers, top European research and higher education institutes, large industrial companies and innovative SMEs from a wide array of application sectors, and other stakeholders to discuss experiences in relation to Joint Programming, assess the progress and impact to date and consider future challenges and priorities.

Keynote speakers included Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn, Director-General of DG Research and Innovation, Robert-Jan Smits, Rimantas Vaitkus, Vice-Minister of Education and Science, Lithuania, Maria da Graça Carvalho, Member of European Parliament, Josef Zboril, Member of the European Economic & Social Committee and Prof Mark Ferguson, Director General, SFI. The outcome and key findings of the conference were submitted to the May Competitiveness Council for discussion.

European Activities

Horizon 2020, the €80 billion funding programme for scientific research within the EU was approved under the Irish Presidency in 2013 and will support research across the EU over the period 2014-2020.

With the increased funding under Horizon 2020, SFI developed a strategic plan to facilitate the research community in Ireland in leveraging funding from the EU Commission. SFI researchers secured €56 million of external funding from EU sources in 2013.

The European Research Council (ERC) plays a significant role in funding European research, with a budget of €7.5 billion over the lifetime of FP7 (2007–2013). It will continue to support the most talented individuals and teams under Horizon 2020, and its budget is expected to rise to a total of €13 billion.

Irish-based researchers have been successful in winning 35 grants across the various schemes offered by the ERC.

SFI and the IRC act as National Contact Points (NCPs) and National Delegates for this programme and SFI will work in partnership with the IRC, to increase Ireland's participation and success in all ERC schemes.

As part of the support and focus on increasing awards, the SFI ERC Development Programme supports researchers who have submitted a proposal to the ERC Starting, Consolidator, and Advanced Grant programmes, and who have been deemed fundable, but were ultimately not funded by the ERC due to a lack of available programme budget. The programme aims to support or improve a resubmission to an ERC funding scheme thereby increasing Irish success in the ERC calls.

A further SFI programme, the SFI ERC Support award, assists Irish host institutions in providing the appropriate support to successful ERC awardees. Finally, SFI has created preferential eligibility criteria to enable successful ERC award holders in Ireland to apply to a number of SFI programmes.

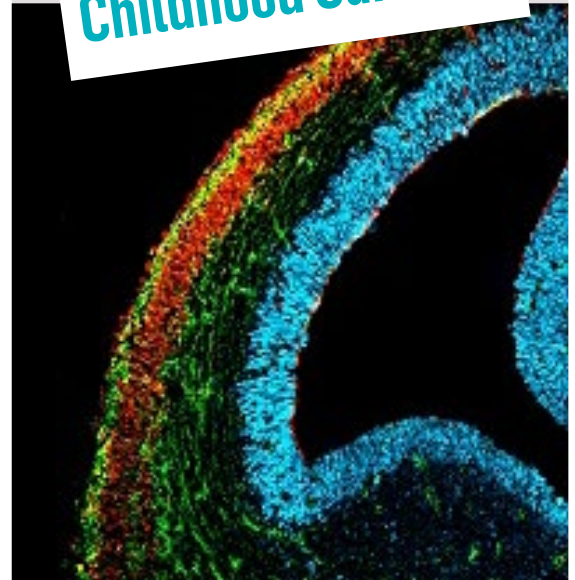
Irish Presidency of the Council of the European Union

Ireland held the Presidency of the Council of the EU for the seventh time from January to June 2013. SFI was involved with various activities and events throughout the Presidency.

SFI hosted the EU Joint Programming Conference “Agenda for the Future and Achievements to Date” as part of the Irish Presidency.

On behalf of SFI Prof Mark Ferguson, Director General, SFI, participated in numerous events and activities as part of Ireland’s Presidency. These included EU Science: Global Challenges, Global Collaboration Conference; European Data Forum (EDA); IUA Conference: Researcher Careers and Mobility; Changing Research Business Model and Impact Conference; European Risk Summit; EU Parliamentary Workshop on the Precautionary Principle in Policy Making and Competitiveness Council Meetings.

Advances in Understanding a Childhood Cancer



Front cover of August issue of *Developmental Cell* features work from the Bracken Lab which demonstrates that the CHD5 protein is present in mature neurons (red), but not immature neuroblasts or neural stem cells (blue).

Neuroblastoma is the most common cancer in children younger than two years. It is a cancer of special nerve cells called neuroblasts, which are found throughout the body. Normally, these immature cells grow and mature into functioning nerve cells. However, in Neuroblastoma, they fail to mature and become cancer cells instead.

A significant advance in the understanding of Neuroblastoma has been made by scientists from the Smurfit Institute of Genetics at Trinity College Dublin. The TCD group, led by Dr Adrian Bracken, and funded by SFI, published their findings in the leading international journal, *Developmental Cell*, in August 2013.

The study centres on a molecule in cells called CHD5. The CHD5 gene is deleted in children with the worst form of Neuroblastoma. The research showed that without CHD5, neuroblasts are incapable of maturing or “differentiating” to mature neurons.

Understanding the role of genes whose deletion or inactivation is associated with disease is central to designing intelligent therapeutic strategies. It is hoped that this research will lead to new and improved treatments for children with this disease.

Leveraging additional funding

SFI researchers leveraged €125 million in 2013 from external sources, including €56 million in funding from EU sources. The ratio of funding from non-Irish Exchequer to Irish-Exchequer is almost 2:1, which is an improvement on the ratio in 2012 of 1.5: 1; while the ratio of National funding to International funding was close to 1:1.



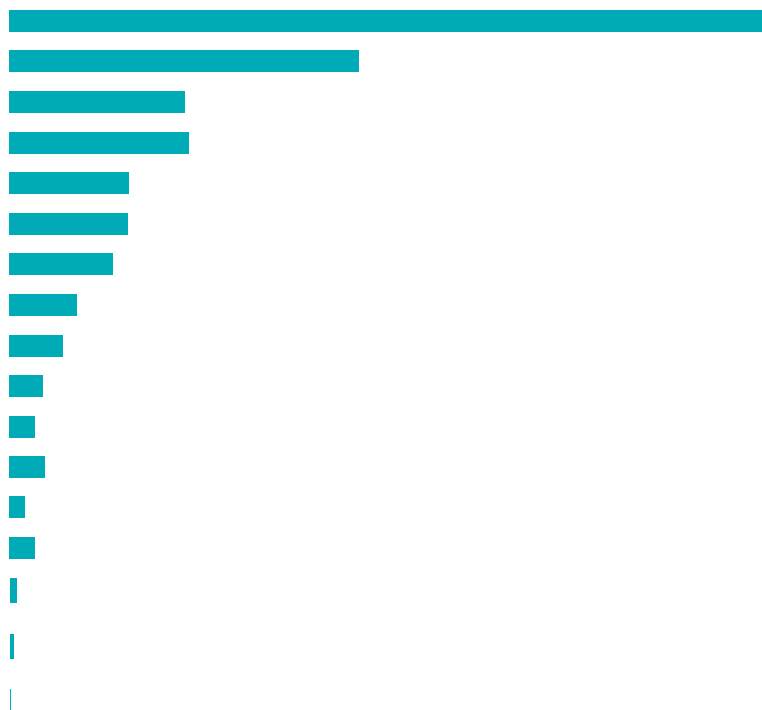
SFI researchers leveraged €125m in 2013 from external sources

Summary of External Funding secured by SFI-funded Researchers in 2013

	Irish Exchequer	Non-Irish Exchequer	National	International
2013	43,173,517	82,025,608	52,705,583	60,325,096
Ratio	1:1.9		1:1.1	
2012	67,469,365	103,571,525	70,446,495	86,250,058
Ratio	1:1.5		1:1.2	

Amount of External Funding secured by SFI-funded Researchers in 2013

	2013
European Union	55,767,703
Enterprise Ireland (EI)	19,182,809
Charity/Non-Profit Organisation (Irish)	9,532,066
Private Enterprise	9,668,446
Irish Research Council (IRC)	6,561,937
Department of Agriculture Fisheries and Food	6,526,117
Health Research Board (HRB)	5,738,466
Other Source	2,500,000
Other Irish Government Source	2,314,938
Teagasc	1,420,630
Charity/Non-Profit Organisation (International)	1,178,511
Other International Government Source	1,477,291
Environmental Protection Agency (EPA)	918,563
Other International Interest Organisation	1,895,991
Higher Education Authority Ireland (HEA)	482,957
Department of Communications, Energy and Natural Resources (DCENR)	27,100
National Science Foundation US (NSF)	5,600
Total	125,199,125



Partnerships

National Partnerships

SFI has built strategic partnerships with other national agencies for collaborative funding initiatives. These include:

- ▶ The 'Future Agri-Food' collaboration agreement between SFI and Teagasc, in which they have agreed to jointly fund research grants between scientists from the agriculture and food disciplines and scientists from other scientific and engineering disciplines.
- ▶ SFI and the IRC who are collaborating on two separate initiatives that will fund projects in the employment based programme and in STEM education and outreach.
- ▶ SFI and the Higher Education Authority who have a number of Science Policy projects that will investigate topics such as the impact of R&D spend on innovation and economic return to the state. A total of three projects were funded, of which two were co-funded with the HEA.
- ▶ SFI and its sister agency Enterprise Ireland continue to work closely on the commercialisation focused TIDA.
- ▶ The SFI-HRB-Wellcome Trust Partnership continues funding successful biomedical research projects.

- ▶ US Ireland R&D Partnership is a unique initiative involving funding agencies across three jurisdictions: United States of America (USA), Republic of Ireland (ROI) and Northern Ireland (NI). Under the US-Ireland R&D Partnership Programme, a '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 to a number of their existing funding programmes.

International Partnerships

- ▶ SFI established a new partnership with the National Science Foundation (NSF) in the US under the Graduate Research Opportunities Worldwide (GROW) initiative.
- ▶ The SFI International Strategic Cooperation Awards (ISCA) to consortia of Irish HEIs have begun to build strategic partnerships with China, Brazil and India. The 2013 iteration of the ISCA call aims to strengthen these partnerships and build new partnerships with Japan.

GROW Initiative



NSF Acting Director Cora Marrett and Prof Mark Ferguson, Director General, SFI.

SFI established a new partnership with the National Science Foundation (NSF) in the US to develop and facilitate research opportunities in Ireland for the best young research talent in the NSF's Graduate Research Fellowship Programme under the Graduate Research Opportunities Worldwide (GROW) initiative.

This allows over 5,000 of the top US researchers funded by the NSF to spend up to one year researching in international institutions which now includes Ireland.

These researchers will now be able to apply to all of the major research groups and centres funded by SFI as part of the GROW programme.

Public Engagement and Education

In 2013, SFI's remit was broadened to provide funding to promote the study of, education in and awareness of STEM.

SFI launched the SFI Discover Programme which includes education and public engagements and competitive, internationally reviewed funding calls to support STEM engagement projects.

SFI Discover continues to address the need to increase the number of students studying STEM at primary and secondary level. The programme also works towards having the most engaged and scientifically informed public through its activities and events.

Education Primary

Discover Primary Science and Maths (DPSM) is the main programme at primary level and has been designed to be accessible to all primary schools running the Social, Environmental and Scientific Education (SESE) curriculum. Key activities during 2013 included:

6,390 Teachers registered across 2,970 schools (91%).

42 Discover Centres with accredited science programmes suitable for school visits, etc.

51 teachers attended Maths Summer courses delivered in three locations.

470 schools received the Award of Science & Maths Excellence in 2013.

4,000+ teachers in **250** schools have registered to receive after school training 2013/2014.

Hands-on classroom activities mapped to the curriculum are available on website.

The award winning website had

400,000 page views
75,000 visits / 47,000 unique

6,390 Teachers registered across 2,970 schools



Aoibhinn Ní Shúilleabháin with students at the launch of the Discover Primary Science and Maths Awards

Education Secondary

Smart Futures the STEM careers initiative continued to provide information and resources about careers in science, technology and engineering to second-level students, teachers, careers guidance counsellors and parents.



A Smart Futures Advisory Forum was established to provide strategic support to the implementation of the initiative.

The Forum brings together a number of industry, education and government representatives to participate in an advisory group.

Work has commenced on developing a strategy for Smart Futures for the period to 2016. The strategy focuses on a mechanism to deliver co-ordinated career advice for STEM subjects to secondary students, teachers, career guidance professionals and parents. During 2013, Smart Futures in collaboration with Engineers Ireland STEPS programme directly engaged with over 28,000 students.

Awareness

During 2013, SFI moved to consolidate the mechanisms for funding STEM public engagement and education to third parties through competitive calls under the SFI Discover Programme. In line with all SFI award programmes applications are sent for external international review.

Two new programmes were established:

- ▶ The SFI Discover Strategic Projects Call aimed to support national and regional projects of a significant scale and impact that encourage people of all ages and from all walks of life to be informed, inspired and involved in STEM. 6 projects received funding under this call.
- ▶ SFI Discover Programme Projects Call aimed to support and develop the education and outreach STEM sector in Ireland by investing in developing and extending capacity in this area and also exploring and encouraging novel means of public engagement and communications. 36 projects received funding under this call.

250,000 people participate in Science Week 2013

Science Week 2013; Exploring the XTRA-Ordinary' proved highly successful with over 800 events taking place across the country involving over 250,000 participants in schools, colleges, universities, libraries, companies and community groups.

Seven regional festivals took place in Sligo, Mayo, Galway, Limerick, Cork, Waterford and, for the first time, a Midlands Science Festival. Science Week, in partnership with The Irish Times, produced a science supplement the week before Science Week to promote the events around the country as well as profiling careers in science, technology, engineering and maths, and other science related content. This was distributed by The Irish Times to all secondary schools throughout the country.

In addition, a number of projects supported under the SFI Discover Call such as Science on the Dart and I'm a Scientist Get Me Out of Here took place during the month of November.



SciFest saw a total of 5,368 students exhibiting

SciFest 2013 is a series of one-day science fairs currently implemented locally in schools and regionally in the Institutes of Technology. By supporting second-level students in developing and exhibiting their projects in STEM SciFest aims to encourage a love and understanding of the STEM subjects through inquiry-based learning. Overall, SciFest 2013 saw a total of 5,368 students exhibiting some 2,262 projects, an increase of 32% in participation on the previous year. It should be noted that the winner of SciFest 2013 also won the BT Young Scientist Competition 2014 with a different project.



Paul Clarke, St Paul's College, Raheny, wins top prize at SciFest 2013, pictured with Prof Mark Ferguson, Director General, SFI.



SciFest

SFI continued to deliver public engagement and education activities throughout the country. These included:

- ▶ SFI expanded its presence at the BT Young Scientist Exhibition, the event saw approximately 45,000 people visit the exhibition over the three days.
- ▶ A successful partnership has been in place with Engineers Ireland's education and outreach programme, STEPS, since 2006 with the particular aim of increasing the numbers studying engineering at third level. Engineers Week in February saw 33,000 participants involved in 497 events nationally. STEPS played a key role in delivering actions under the Smart Futures programme.
- ▶ European Space Agency/European Space Education Resource Office (ESERO) Ireland is a joint initiative between the European Space Agency (ESA) and SFI Discover to provide educational material and activities which will make science more exciting to young people by using space observation and exploration as an engaging theme across all SFI Discover initiatives. The partnership with ESA was extended in 2013 for a further three years up to 2015. Initiatives undertaken as part of this partnership include the Irish CanSat competition. The winning Irish team in 2013 (Colaiste an Phiarsaigh from Cork) came second in their category at the European Competition.
- ▶ The Inaugural Festival of Curiosity featured more than 70 events in Dublin City centre during July all linked by the common thread of curiosity. Events included debates, kids workshops, pop-up science, talks, plays, workshops, Dublin's Mini-Maker Faire and a live version of the BBC's Science Club, where comedian Dara Ó Briain, journalist Alok Jha and various Irish scientists including SFI-supported Shane Bergin and Aoife McLysaght. The festival was supported by SFI, Dublin City Council, The RDS, Bayer and Matheson.
- ▶ The Oscillator exhibition in the Science Gallery was supported by SFI during 2013.
- ▶ The Science Zone at the The Big Day Out, which is part of the St Patrick's Festival, took place on 16th March in Dublin City Centre.

€60 million awards made in SFI investigator programme

Prof Michael Gilchrist, UCD, Dr Emma Creagh, TCD, Prof Mark Ferguson, Director General, SFI, Mr Seán Sherlock, TD, Minister for Research and Innovaton and Prof Stephen O'Brien, UL



SFI Awards 2013

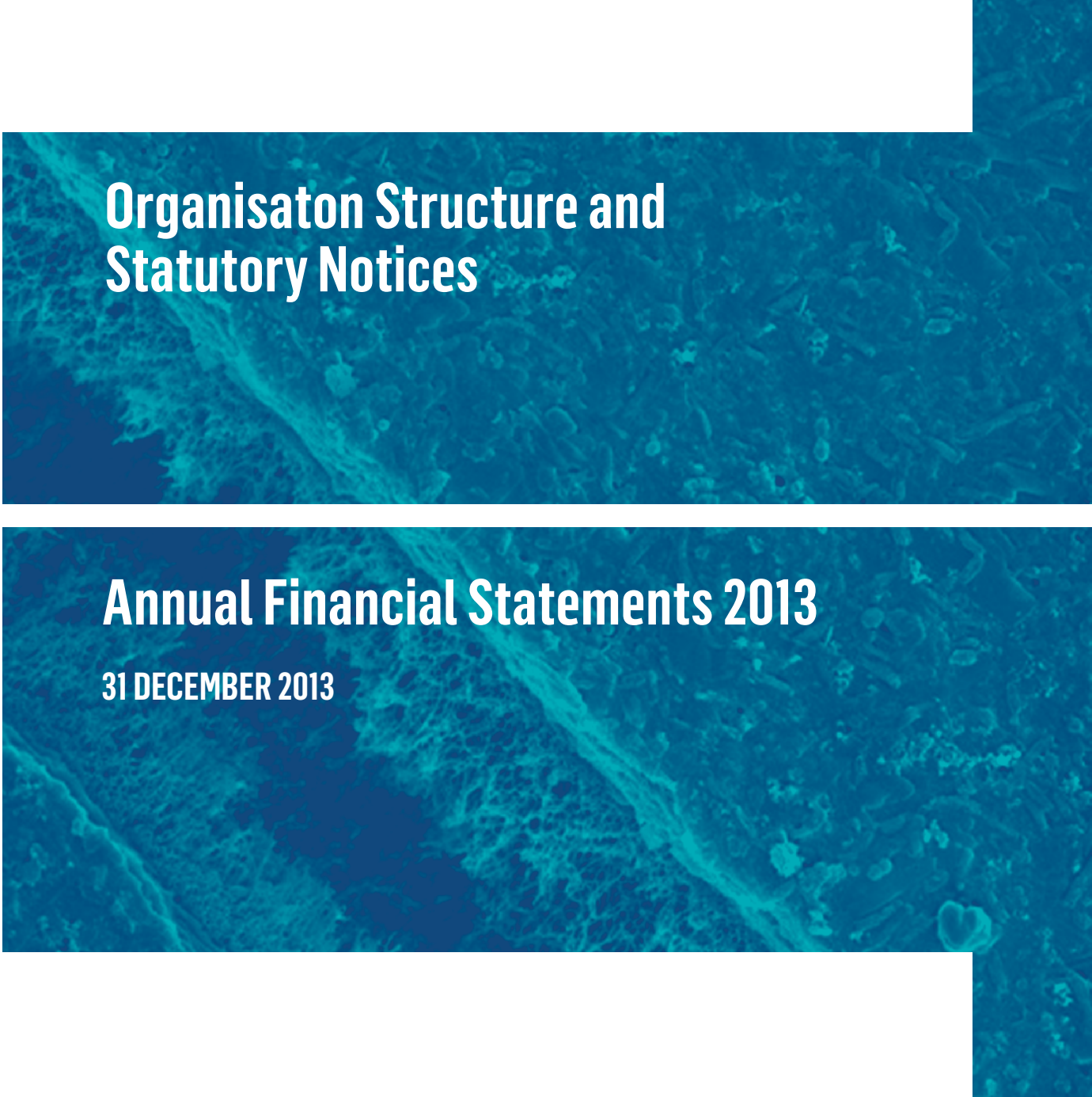
SFI supported 307 new awards in 20 research bodies in Ireland in 2013.

Significant 2013 SFI funding announcements include:

- ▶ €200 million investment from SFI over six years in seven world class SFI Research Centres in key strategic areas of importance to the economy.
- ▶ €60 million was invested in 83 pioneering research projects through the SFI Investigator Programme. These research projects directly support 250 researchers, through to 2018 and focus on a range of areas identified in the NRPE as key for developing new commercial products and services from scientific research, including ICT, health/life sciences, energy and manufacturing competitiveness. Thus far, the projects have links to 36 companies.
- ▶ In 2013, 83 TIDA awards and 21 Industry Fellowship awards were made in NRPE-related areas.
- ▶ Through the SFI International Strategic Cooperation Awards (ISCA), consortia of Irish HEIs have begun to build strategic partnerships with China, Brazil, Japan and India. In December, SFI awarded funding of €4.5 million for six ISCA awards for the above countries.

- ▶ The revised SFI Research Professorship Programme supports national strategic priorities by assisting research bodies in their recruitment of world-leading researchers for Professorial Chairs, or similar research leadership positions in targeted scientific areas. Professor Michael Zaworotko, formally with the Department of Chemistry, University of South Florida, was awarded an SFI Research Professorship Award in May 2013 and has been appointed as the Bernal Chair of Crystal Engineering at the University of Limerick. He ranks 20th in the world in terms of highest citation impact score in the field of chemistry.
- ▶ Three awards were made under the President of Ireland Young Researcher Awards (PIYRA).
- ▶ The SFI ERC Development Programme made three awards.
- ▶ The SFI ERC Support Programme made eight awards.

Full details and analysis of all SFI awards approved in 2013 are on pages 55 to 70.

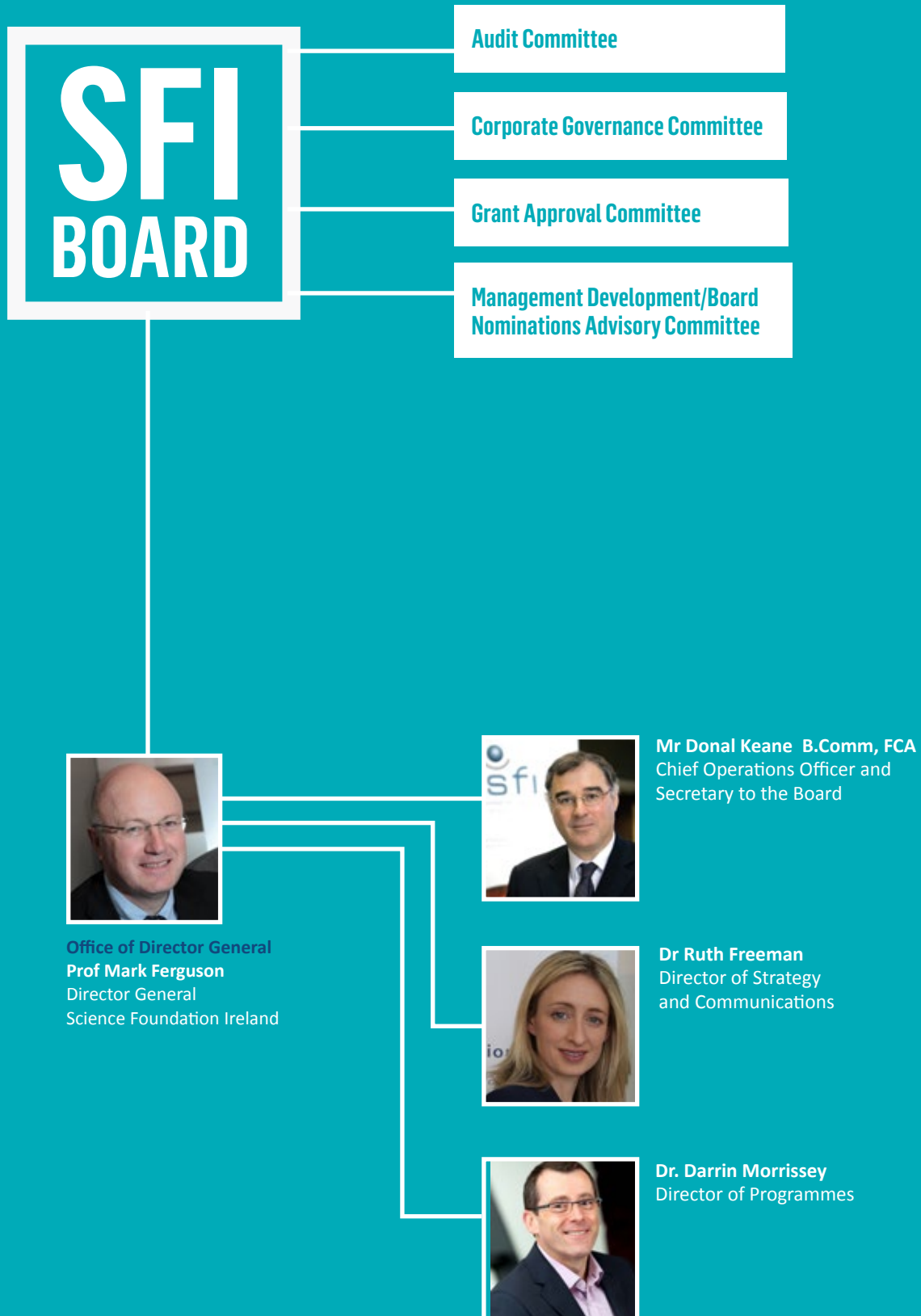
A large, abstract image of a microscopic biological specimen, possibly a cross-section of a tissue or organ, rendered in shades of blue and teal. The image shows intricate, fibrous structures and cellular details, creating a complex, textured background for the text.

Organisaton Structure and Statutory Notices

Annual Financial Statements 2013

31 DECEMBER 2013

Organisational Structure*



* Organisaton Chart as of June 2014.

Board Members*



Ms Ann Riordan
Chairman,
Science Foundation Ireland



Ms Bernie Cullinan
Deputy Chairperson,
Science Foundation Ireland
and CEO of Pragma
Advisory



Prof Mark Ferguson
Director General, Science
Foundation Ireland and
Chief Scientific Adviser to
the Government



Mr Sean Ahearne
Senior Director of
Operations
American Medical Systems
Ireland Ltd



Dr Rita R. Colwell
Distinguished University
Professor, University of
Maryland, College Park and
Johns Hopkins University
Bloomberg School of Public
Health



Mr Dermot Curran
Assistant Secretary General/
Director of the Innovation
and Investment Division of
the Department of Jobs,
Enterprise and Innovation



Mr Aidan Donnelly
Chief Executive,
ServeCentric Ltd



Ms Mary Doyle
Deputy Secretary General,
Department of Education
and Skills



Dr Pat Duane
Global VP Operations
Creganna Tactx Medical



Mr Peter MacDonagh
Research Consultant



Prof Liam Madden
Corporate Vice President
of Engineering, Xilinx



Ms Geraldine Ruane
Business Consultant

* In compliance with Sections 9(3) and 9(4) of the Industrial Development (Science Foundation Ireland) Act 2003 relating to Board Membership, and in consideration that the maximum length of service had been reached, the following Board Members retired in July 2013.

Prof Patrick Fottrell, Dr Jim Mountjoy and Dr Martina Newell-McGloughlin.

Full details on Board appointments can be found in the Statutory and Other Notices - Note 5

Statutory and Other Notices

1. Board Members – Register of Interests

The Board operates to the best practice corporate governance principles and in accordance with the guidelines set out in the Code of Practice for the Governance of State Bodies, as issued by the Department of Finance, both in its activities and in its use of committees. In accordance with these guidelines, SFI Board Members register their interests in other undertakings with the Secretary.

2. Ethics in Public Office Acts, 1995 and Standards in Public Offices Act, 2001

Ethics in Public Office Acts, 1995 and Standards in Public Offices Act, 2001

SFI became subject to the Ethics in Public Office Acts 1995 and 2001 on the 1 January 2005. SFI has complied with the provisions of the Act.

3. Freedom of Information Act, 1997 and Freedom of Information (Amendment) Act, 2003.

SFI became a prescribed body under the Freedom of Information Act, 1997 from 31 May 2006. SFI complies fully with the Act. Requests for information under this Act should be addressed to the FOI Officer, SFI, Wilton Park House, Wilton Place, Dublin 2.

4. Prompt Payment of Accounts Act, 1997

4.(i) Prompt Payment of Accounts Act, 1997

SFI comes under the remit of the Prompt Payment of Accounts Act, 1997 which came into effect on 2 January 1998, and the European Communities (Late Payment in Commercial Transactions) Regulations 2002, which came into effect on the 7 August 2002. It is the policy of SFI to ensure that all invoices are paid promptly. Specific procedures are in place that enable SFI to track all invoices and ensure that payments are made before the due date. Invoices are registered daily and electronic payments are issued as required to ensure timely payments. Management is satisfied that SFI complied with the provisions of the Act in all material respects.

4. (ii) Prompt payment to Suppliers

SFI is committed to meeting its obligations under the 15 day Prompt Payment Rule, which came into effect on 1st July 2011.

This provision ensures that payments to suppliers in respect of all valid invoices received will be made within 15 calendar days.

SFI reports quarterly in the “About SFI - Customer Service” section of the website on the implementation of the 15 day Prompt Payments Rule.

5. Board Meetings/Attendance

The SFI Board normally consists of 12 members appointed by the Minister for Jobs, Enterprise and Innovation, as set out in Section 8 of the Industrial Development (Science Foundation Ireland) Act 2003. The quorum for the SFI Board is five members. Six scheduled SFI Board meetings were held in 2013 as follows:

Date	Venue	Number of Attendees
04 February 2013	Board Room, Wilton Park House	11/11
15 April 2013	Board Room, Wilton Park House	10/12
10 June 2013	Board Room, Wilton Park House	11/12
09 September 2013	Board Room, Wilton Park House	8/9
21 October 2013	Board Room, Wilton Park House	8/9
16 December 2013	Board Room, Wilton Park House	12/12

Board Members 2013

Name of Director	Attendance at Board Meetings (6 meetings)
Patrick Fottrell (Chairman) (1)	3 out of 3
Ann Riordan (Chairman) (2)	1 out of 1
Jim Mountjoy (Deputy Chairman) (1)	2 out of 3
Bernie Cullinan (Deputy Chairman) (3)	6 out of 6
Sean Aherne	5 out of 6
Rita Colwell	6 out of 6
Dermot Curran	6 out of 6
Aidan Donnelly (4)	1 out of 1
Mary Doyle	5 out of 6
Pat Duane	6 out of 6
Mark Ferguson	6 out of 6
Peter MacDonagh	6 out of 6
Liam Madden (5)	4 out of 5
Martina Newell-McGloughlin (1)	2 out of 3
Geraldine Ruane (4)	1 out of 1

- (1) In compliance with Sections 9(3) and 9(4) of the Industrial Development (Science Foundation Ireland) Act 2003 relating to Board Membership, and in consideration that the maximum length of service had been reached, the following Board Members retired in July 2013
 - Prof Patrick Fottrell (Chairman);
 - Dr Jim Mountjoy; and
 - Dr Martina Newell McGloughlin.
- (2) Ms Ann Riordan was appointed by the Minister as Chairman of the Board in December 2013.
- (3) Ms Bernie Cullinan was appointed by the Minister as Deputy Chairman of the Board in August 2013.
- (4) Ms Geraldine Ruane and Mr Aidan Donnelly were appointed by the Minister as members of the Board in December 2013
- (5) Prof Liam Madden was appointed by the Minister as a member of the Board in February 2013.

Members of Committees of the Board 2013

Grant Approval Committee

Dr Martina Newell-McGloughlin (Chairperson to July 2013), Mr Peter MacDonagh (Chairperson from July 2013), Dr Rita Colwell, Prof Mark Ferguson, Mr Martin Lyes (from October 2013).

SFI Audit Committee

Ms Bernie Cullinan (Chairperson), Mr Aidan Hodson, Mr Sean Aherne and Dr Pat Duane.

Board Sub Committee Meetings

1. The Audit Committee held six meetings.
2. The Grant Approval Committee held three (virtual) meetings.

6. Employment Equality Acts 1998 and 2004

SFI wholeheartedly supports the principle of equal opportunities in employment. It opposes all forms of discrimination on the grounds of colour, race, nationality, sexual orientation, ethnic or national origin (and/or area of origin), religion, gender, marital status, age or disability. SFI's commitment to implementing equal opportunities is reflected in its policies, practices and procedures, recruitment, promotion, training, use of non-discriminatory language in company documents and publications. The objective is to ensure that all staff are selected and treated only on the basis of their abilities, knowledge and qualifications.

7. Safety, Health and Welfare at Work Act 2005

In accordance with the above Act, SFI in consultation with IDA implements appropriate measures to protect the safety, health and welfare of all employees and visitors within its offices.

8. Clients' Charter

SFI has published a Clients' Charter setting out its commitment to a high quality of service. This Charter includes a procedure for dealing with complaints. In 2012, no complaints were received under the Charter.

9. Reporting by Public Sector Bodies

Under Statutory Instrument (SI) 542, 2009 the public sector has specific energy reporting obligations. SFI's offices are located in Wilton Park House, Wilton Place, Dublin 2. The building facilities are managed by IDA. In each area relevant to energy usage and services to the building, SFI is satisfied that IDA endeavours to employ the most energy efficient and environmentally friendly means available. In compliance with Statutory Instrument (SI) 542, 2009, SFI has reported details of energy usage for 2012 and 2013 through the public sector monitoring & reporting (M&R) website.

10. Board Expenses

The total board expenses for 2013: €38,850.

Expenditure Heading	€
Foreign Travel	€30,630
Domestic Travel	€1,476
Accommodation/Subsistence/Incidental expenses	€6,744

11. Director General's Remuneration

The Director General's salary for the year was €182,334 and standard public sector pension arrangements apply. No performance related bonus was applicable. Prof Ferguson is also Chief Scientific Advisor to the Government, a role formerly under the administration of Forfás. There is no remuneration for this role and all administration costs for the office are absorbed by SFI.

Report of Comptroller & Auditor General

Report for presentation to the Houses of the Oireachtas

I have audited the financial statements of Science Foundation Ireland for the year ended 31 December 2013 under the Industrial Development (Science Foundation Ireland) Act 2003. The financial statements, which have been prepared under the accounting policies set out therein, comprise the accounting policies, the income and expenditure account, the balance sheet, the cash flow statement and the related notes. The financial statements have been prepared in the form prescribed under Section 24 of the Act, and in accordance with generally accepted accounting practice in Ireland.

Responsibilities of the Members of the Board

The Board is responsible for the preparation of the financial statements, for ensuring that they give a true and fair view of the state of Science Foundation Ireland's affairs and of its income and expenditure, and for ensuring the regularity of transactions.

Responsibilities of the Comptroller and Auditor General

My responsibility is to audit the financial statements and to report on them in accordance with applicable law.

My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation.

My audit is carried out in accordance with the International Standards on Auditing (UK and Ireland) and in compliance with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements, sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of

- ▶ whether the accounting policies are appropriate to Science Foundation Ireland's circumstances, and have been consistently applied and adequately disclosed
- ▶ the reasonableness of significant accounting estimates made in the preparation of the financial statements, and
- ▶ the overall presentation of the financial statements.

I also seek to obtain evidence about the regularity of financial transactions in the course of audit.

In addition, I read Science Foundation Ireland's annual report to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies, I consider the implications for my report.

Opinion on the financial statements

In my opinion, the financial statements, which have been properly prepared in accordance with generally accepted accounting practice in Ireland, give a true and fair view of the state of Science Foundation Ireland's affairs at 31 December 2013 and of its income and expenditure for 2013.

In my opinion, proper books of account have been kept by Science Foundation Ireland. The financial statements are in agreement with the books of account.

Matters on which I report by exception

I report by exception if

- ▶ I have not received all the information and explanations I required for my audit, or
- ▶ my audit noted any material instance where money has not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- ▶ the information given in Science Foundation Ireland's annual report is not consistent with the related financial statements, or
- ▶ the statement on internal financial control does not reflect Science Foundation Ireland's compliance with the Code of Practice for the Governance of State Bodies, or
- ▶ I find there are other material matters relating to the manner in which public business has been conducted.

I have nothing to report in regard to those matters upon which reporting is by exception.


Seamus McCarthy
 Comptroller and Auditor General
 28 June 2014

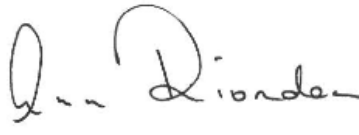
Statement of Board Members' Responsibilities

For 2013 Annual Financial Statements

Section 24 (2) of the Industrial Development (Science Foundation Ireland) Act, 2003, requires Science Foundation Ireland to keep, in such form as may be approved by the Minister for Jobs, Enterprise and Innovation with the consent of the Minister for Public Expenditure and Reform, all proper and usual accounts of money received and expended by it and, in particular, to keep in such form as aforesaid all special accounts as the Minister may from time to time direct. In preparing those financial statements, Science Foundation Ireland is required to:

- ▶ select suitable accounting policies and apply them consistently;
- ▶ make judgements and estimates that are reasonable and prudent;
- ▶ prepare the financial statements on the going concern basis unless it is inappropriate to presume that Science Foundation Ireland will continue in operation;
- ▶ disclose and explain any material departures from applicable Accounting Standards.
- ▶ The Board is responsible for keeping proper books of account which disclose with reasonable accuracy at any time its financial position and which enable it to ensure that the financial statements comply with the overall requirements of Section 24 of the Industrial Development (Science Foundation Ireland) Act, 2003. These books of account are located at the Foundation's headquarters, Wilton Park House, Wilton Place, Dublin 2. The Board is also responsible for safeguarding its assets and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

On behalf of the Board:



Ms Ann Riordan
Chairman

Date: 9 June 2014



Prof Mark Ferguson
Director General

Date: 9 June 2014

Statement on Internal Financial Control

On behalf of the Board of Science Foundation Ireland I acknowledge our responsibility for ensuring that an effective system of internal financial control is maintained and operated.

The system can only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or detected in a timely period.

The Board has taken steps to ensure an appropriate control environment is in place by:

- ▶ Clearly defining and documenting management responsibilities and powers;
- ▶ Establishing formal procedures for monitoring the activities and safeguarding the assets of the organisation;
- ▶ Developing a culture of accountability across all levels of the organisation.

The Board has also established processes to identify and evaluate business risks by:

- ▶ Working closely with Government and various Agencies to ensure that there is a clear understanding of Science Foundation Ireland goals and support for the Agencies' strategies to achieve those goals.
- ▶ Carrying out regular reviews of strategic plans, both short and long term, and evaluating the risks to bringing those plans to fruition
- ▶ Setting annual targets for each area of our business followed by regular reporting on the results achieved;

The system of internal financial control is based on a framework of regular management information, administration procedures including segregation of duties, and a system of delegation and accountability. In particular it includes:

- ▶ A comprehensive budgeting system with an annual budget which is reviewed and agreed by the Board;
- ▶ Regular reviews by the Board of periodic and annual financial reports which indicate financial performance against forecasts;
- ▶ Setting targets to measure financial and other performance;
- ▶ Formal project management disciplines.
- ▶ Clearly defined capital investment control guidelines.

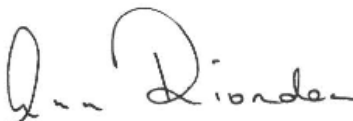
Science Foundation Ireland has established an Internal Audit function, in accordance with the Framework set out in the Code of Practice on the Governance of State Bodies, which reports directly to the Audit Committee. An annual Internal Audit work plan is agreed by the Audit Committee. The work of internal audit is informed by analysis of the risks to which the body is exposed. The Audit Committee meets six times a year and reviews the outcome of the specific internal audits and the on-going adequacy and effectiveness of the system of internal financial control. These reports highlight deficiencies or weaknesses, if any, in the system of internal financial control and the recommended corrective measures to be taken where necessary.

A Risk Management Committee, made up of the Senior Management team, meets on a regular basis to review and manage risks identified throughout the Foundation. These risks are ranked and updated on a comprehensive SFI Risk Register, which is reported as a standing item on the SFI Audit Committee agenda.

The Board's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of Internal Audit and the Audit Committee which oversees the work of Internal Audit, the control exercised by the Executive managers within SFI who have responsibility for the development and maintenance of the financial framework, and comments by the Comptroller and Auditor General in his Management Letter.

I confirm that the Board conducted a review of the effectiveness of the system of internal financial controls for 2013.

Signed on behalf of the Board.



Ms Ann Riordan
Chairman

Date: 9 June 2014

Accounting Policies

The basis of accounting and significant accounting policies adopted by Science Foundation Ireland are as follows:

1) Basis of Accounting

The Financial Statements have been prepared under the historical cost convention in the form approved by the Minister for Jobs, Enterprise and Innovation with the consent of the Minister for Public Expenditure and Reform under the Industrial Development (Science Foundation Ireland) Act 2003, and by the Industrial Development (Science Foundation Ireland) (Amendment) Act, 2013. The Financial Statements are prepared on an accruals basis, except where stated below and are in accordance with generally accepted accounting practice. Financial Reporting Standards, recommended by the Accounting Standards Board, are adopted as they become effective.

2) Income Recognition

Income from Oireachtas Grant and Grant refunds represent actual cash receipts in the year.

3) Fixed Assets

Fixed Assets are stated at cost less accumulated depreciation. Depreciation is calculated in order to write off the cost of fixed assets over their estimated useful lives (see Note 6).

4) Capital Account

The Capital Account represents the unamortised funds utilised for the acquisition of Fixed Assets and is written down in line with the depreciation policy for these assets.

5) Foreign Currencies

Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rates ruling at the Balance Sheet date. Revenues and costs are translated at the exchange rates ruling at the dates of the underlying transactions. The resultant surpluses or deficits are dealt with in the Income and Expenditure Account.

6) Superannuation

Science Foundation Ireland is established as an agency of Forfás in accordance with Section 6 (1) of the Industrial Development (Science Foundation Ireland) Act, 2003. Staff employed at the Foundation are legally employees of Forfás and are seconded to the Foundation, consequently, under Sections 2 and 3 of the Second Schedule of the Industrial Development Act, 1993, Forfás is responsible for all employee pension entitlements. Forfás prepares and administers pension schemes for the granting of pension entitlements to its staff including staff seconded to Science Foundation Ireland. Forfás is also responsible for pension reporting requirements, including those set out under FRS 17.

7) Operating Leases

The rentals under operating leases are accounted for as they fall due.

8) Research Grant Payment

Amounts paid to Research Bodies on foot of research grants awarded are charged to the Income and Expenditure account in the year of issue.

Income and Expenditure Account

For the year ended 31 December 2013

	Notes	2013 €'000	2012 €'000
Income			
Oireachtas Grant	1	161,550	171,039
Other Income	2	247	922
Profit on Disposal of Fixed Asset		-	12
		161,797	171,973
Expenditure			
Pay	3	3,866	3,978
Administration Expenses	4	5,315	5,753
IREL (E Journals) Subscription	5	-	5,000
Depreciation	6	237	232
Grants	7(a)	152,310	156,927
		161,728	171,890
Operating Surplus for the Year		69	83
Balance at beginning of Year		552	416
Transfer from Capital Account	8	137	53
Accumulated Surplus at end of Year		758	552

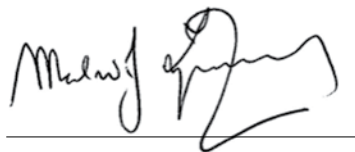
There are no recognised gains or losses, other than those dealt with in the Income and Expenditure Account.

The Accounting Policies, Cash Flow Statement and Notes 1 to 16 form part of these Financial Statements.

On behalf of the Board:



Ms Ann Riordan
Chairman



Prof Mark Ferguson
Director General

Date: 9 June 2014

Date: 9 June 2014

Balance Sheet

As at 31 December 2013

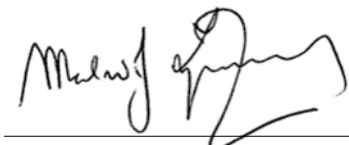
	Notes	2013 €'000	2012 €'000
Fixed Assets			
Tangible Fixed Assets	6	249	386
Current Assets			
Cash at Bank		588	556
Accounts Receivable	9	384	349
		972	905
Accounts Payable	10	214	353
Net Current Assets		758	552
Net Assets		1,007	938
Represented By:			
Capital Account	8	249	386
Income and Expenditure Account		758	552
		1,007	938

The Accounting Policies, Cash Flow Statement and Notes 1 to 16 form part of these Financial Statements.

On behalf of the Board:



Ms Ann Riordan
Chairman



Prof Mark Ferguson
Director General

Date: 9 June 2014

Date: 9 June 2014

Cash Flow Statement

For the year ended 31 December 2013

	Notes	2013 €'000	2012 €'000
Reconciliation of Surplus for Year to Net Cash Flow from Operations			
Surplus for Year		69	83
Bank Interest	2	(2)	(7)
(Profit) on Disposal of Fixed Assets		-	(12)
Depreciation Charge	6	237	232
(Increase) in Accounts Receivable	9	(35)	(238)
(Decrease)/Increase in Accounts Payable	10	(139)	193
Net Cash Flow from Operations		130	251
Cash Flow Statement			
Net Cash Flow from Operations		130	251
Returns on Investment and Servicing of Finance			
- Bank Interest	2	2	7
Cash Flow before Capital Expenditure		132	258
Capital Funding			
Receipts from Sale of Tangible Fixed Asset		-	12
- Purchase of Tangible Fixed Assets	6	(100)	(179)
Increase in Cash		32	91
Reconciliation of Increase in Cash to Cash at Bank			
Movement in Cash for the Year		32	91
Cash at Bank at 01 January		556	465
Cash at Bank at 31 December		588	556

Notes to the Accounts

For the year ended 31 December 2013

1 Oireachtas Grant

(a) Science Foundation Ireland

Funded by Department of Jobs, Enterprise and Innovation Vote 32, Science and Technology Development Programme

		2013	2012
		€'000	€'000
Pay	Subhead B.4.2	4,050	4,123
Administration Expenses	Subhead B.4.2	5,200	4,116
E Journals Subscription	Subhead B.4.2	-	5,000
Research Grants	Subhead B.4.2	152,300	156,000
Research Grants*	Subhead B.4.3.1	-	200
		161,550	169,439
		-	1,600
		161,550	171,039

*International Leverage funding received from the Department of Jobs, Enterprise and Innovation as a contribution to SFI's funding of the International Strategic Cooperation Award Programme (ISCA) which supports new and existing research-based collaborations between Ireland's Higher Education Institutions (HEIs) and partner organisations in three designated countries: Brazil, the People's Republic of China and India.

(b) The Discover Science & Engineering Programme was set up to encourage and develop an interest in Science, Technology, Engineering and Maths (STEM) amongst primary, secondary and third level students, and the wider public. Science Foundation Ireland took over administration of this programme from Forfás with effect from 1 January 2012.

In 2013 Expenditure relating to the Discover Science and Engineering Programme is included in Administration Expenses as the related funding is included as part of Science Foundation Ireland's total Oireachtas Allocation.

In 2012 Income and related Expenditure were accounted for separately under Oireachtas funding of €1.6m.

The 2012 Expenditure has been restated for comparative purposes.

(c) Under Section 11 of the Industrial Development Act, 1993, as amended by Section 4 (a) of the Industrial Development Act, 2009, the aggregate amount of grants made by the Minister to Forfás and its Agencies, to enable them to discharge their obligations and liabilities shall not exceed €7,000,000,000. At 31 December, 2013 the aggregate amount so approved was €4,907,260,754.

Notes to the Accounts

For the year ended 31 December 2013

2 Other Income

(a) Research Grant Funding:

	2013 €'000	2012 €'000
EU Nano Science Fund [Note (i)]	-	26
Starting Investigator Research Grant (SIRG) Funding [Note (ii)]	-	691
Health Research Board - Co Fund US/Ireland R & D Partnership	10	10
	10	727
Joint Programming Initiative		
EU funded Conference held 28 February to 3 March 2013 in Dublin Castle	115	-
Bank Interest	2	7
Total	127	734
(b) Discover Science and Engineering [Note 8a]		
European Space Agency [Note (iv)]	120	188
	247	922

(i) EU Nano Science E+ Collaborative Research Call set up to encourage Transnational networking and Co-ordination of Nano science research to generate new knowledge on the fabrication, study, control, or manipulation of individual nanoscale projects.

(ii) EU Marie Curie Fund contribution towards awards made in 2012.

(iii) Contributions received under Grant Co-Funding above are included in Total Grant payments expended in 2013 of €152,310,480.

(iv) Funding arising from an annual contract between Science Foundation Ireland and ESA for the implementation of a European Space Education Resource Office (ESERO) in Ireland. Related Expenditure is covered under Discover Science & Engineering.

3 Pay

	2013 €'000	2012 €'000
Pay Costs comprise:		
Wages and Salaries	3,587	3,657
Social Welfare Costs	274	313
Superannuation Costs	5	8
Total	3,866	3,978
Sanctioned Positions	49	52.5
Actual employed	49	41

Science Foundation Ireland deducted pension levies from staff of €236,155 (2012: €268,040) which were paid over to the Department of Jobs, Enterprise and Innovation.

The Director General's salary for the year was €182,334 and standard public sector pension arrangements apply. Relocation expenses of €15,000 as approved by the Department of Public Expenditure and Reform were paid during the year to the Director General. No performance related bonus was applicable. Prof Ferguson is also Chief Scientific Advisor to the Government, a role formerly under the administration of Forfás. There is no remuneration for this role and all administration costs for the office are absorbed by SFI. Total expenses for the year, incurred by the Director General in the discharge of both roles, amounted to €29,439.

Notes to the Accounts

For the year ended 31 December 2013

4 (a) Administration Expenses

	2013	2012
	€'000	€'000
Board Members' Remuneration and Expenses - (see 4 (b) below)	128	160
Programme Management	743	910
Facilities	939	1,092
Professional Fees	95	248
Legal Fees*	95	139
Support Services	49	-
Public Engagement	105	85
Publications and On Line Content	176	158
Events and Partnerships	460	441
Discover Science & Engineering - Expenses	28	168
Discover Science & Engineering - Communications	212	319
Discover Science & Engineering - Programme Activities	1,439	1,301
IT Support & Infrastructure	355	321
Travel & Subsistence Costs	102	104
HR Management	194	141
Office Furniture & Equipment	14	12
General Office Expenses**	157	131
Audit Fee	24	23
Total	5,315	5,753

* SFI, and certain identified staff members within SFI, were subjected to a sustained and anonymous campaign of harassment from June 2012 onwards on a small number of internet "blog sites", and through unsolicited e-mails and postings on twitter. Legal advice was sought to assess the options available to SFI with respect to (a) potentially identifying the source of the offensive material, (b) assessing whether civil or criminal proceedings could be taken against any parties and (c) giving consideration to how best to prevent further material being published. Discussions with the legal advisors are on-going. Legal Fees of €74,595 in relation to this matter were incurred in 2013 (2012: €123,717).

** Staff related expenditure of €2,967 is included in the General Office expenses figure.

Notes to the Accounts

For the year ended 31 December 2013

4 (b) Board Remuneration and Expenses

		2013	2012
		€	€
Board Remuneration			
Board Members			
Ann Riordan (Chairman)	Appointed on 5 December 2013	1,476	-
Patrick Fottrell (Outgoing Chairman)	Retired on 25 July 2013	11,970	20,520
Mark Ferguson		-	-
Sean Ahearne		11,970	11,970
Rita Colwell		11,970	11,970
Bernie Cullinan		11,970	11,970
Pater MacDonagh		11,970	11,970
Pat Duane		11,970	11,970
Dermot Curran		-	-
Mary Doyle		-	-
Liam Madden	Appointed on 1 February 2013	-	-
Geraldine Ruane	Appointed on 5 December 2013	860	-
Aidan Donnelly	Appointed on 5 December 2013	860	-
John Travers	Retired on 25 July 2012	-	6,770
Martina Newell McGloughlin	Retired on 25 July 2013	6,982	11,970
James Mountjoy	Retired on 25 July 2013	6,982	11,970
		88,980	111,080
Board Members Expenses			
Ann Riordan (Chairman)	Appointed on 5 December 2013	-	-
Patrick Fottrell (Outgoing Chairman)	Retired on 25 July 2013	-	300
Mark Ferguson		-	-
Sean Ahearne		-	-
Rita Colwell	US Based	20,433	22,093
Bernie Cullinan		-	725
Pater MacDonagh	EU based	2,332	2,915
Pat Duane		741	1,445
Dermot Curran		-	-
Mary Doyle		-	-
Liam Madden	Appointed on 1 February 2013	-	-
Geraldine Ruane	Appointed on 5 December 2013	-	-
Aidan Donnelly	Appointed on 5 December 2013	-	-
Martina Newell McGloughlin	Retired on 25 July 2013	11,980	20,224
James Mountjoy	Retired on 25 July 2013	-	-
General Board Expenses		3,364	1,610
		127,830	160,392

Board members are paid fees as determined by the Minister of Jobs, Enterprise and Innovation with the consent of the Minister for Public Expenditure & Reform. Certain Board members are excluded from receiving fees from SFI under the "One Person One Salary" remuneration arrangements whereby public servants cannot receive Board fees in addition to a salary. In addition one US Board member, Prof Liam Madden, has waived his Board fee.

Prof Liam Madden did not charge any travel expenses to Science Foundation Ireland in the year in question. General Board expenses include €1,466 in respect of a Board function to mark the retirement from the Board of the outgoing Chairman, Prof Patrick Fottrell and two other long serving members.

Notes to the Accounts

For the year ended 31 December 2013

5 IReL (E Journals) Subscription

2013	2012
€'000	€'000
-	5,000

IReL is a funding initiative which provides access to electronic journals and databases to the 7 Universities, RCSI and to a lesser extent to the 14 Institutes of Technology. This funding allows IRIS Electronic Information Services, the consortium which administers the initiative, to purchase electronic resources for use by the Universities and Institutes of Technologies.

The Department of Jobs, Enterprise and Innovation assumed responsibility for payment of part of the annual subscription to IReL in 2011 and made payments of €5m for both 2011 and 2012, through SFI to IRIS, which is based at University College Dublin. Such payments are no longer being channelled through SFI.

6 Tangible Fixed Assets

	Computer Equipment €'000	Computer Software €'000	Fixtures & Fittings €'000	Total €'000
Cost				
At 1 January 2013	610	538	184	1,332
Additions	80	20		100
Disposals				-
At 31 December 2013	690	558	184	1,432
Depreciation				
At 1 January 2013	584	179	183	946
Charge for Year	50	186	1	237
Disposals				-
At 31 December 2013	634	365	184	1,183
Net Book Amount				
At 1 January 2013	26	359	1	386
Net Movement for Year	30	(166)	(1)	(137)
At 31 December 2013	56	193	0	249

The cost of Tangible Fixed Assets is written off in equal instalments over their expected useful lives as follows:

(i)	Computer Equipment & Computer Software	3 years
(iii)	Fixtures & Fittings	5 years

Notes to the Accounts

For the year ended 31 December 2013

7 Grants

	2013 €'000	2012 €'000
(a) Analysis of Grants Paid		
Agriculture	753	1,258
Astronomy	169	220
Biochemistry	3,930	3,054
Biomedicine	12,615	14,576
Chemistry	14,884	9,492
Computational & Mathematical Biology	14,272	1,144
Computer & Information Sciences	8,490	25,367
Earth & Environmental Sciences	1,263	792
Energy	11,036	7,458
Engineering	9,483	5,764
Food Science	112	-
Genetics & Genomics	3,964	3,966
Immunity & Infection	6,973	11,033
Materials Science	13,416	13,162
Mathematics	2,695	3,269
Microbiology	11,448	4,193
Molecular & Cell Biology	12,135	14,054
Multidisciplinary	86	1,795
Networking & Communications Systems	7,844	13,743
Neuroscience & Behaviour	2,652	5,798
Physics	9,383	11,665
Outreach activities	138	-
Strategic Funds	4,569	5,124
Total	152,310	156,927

The analysis of Grant payments have been reclassified to reflect the results of the National Research Prioritisation strategy adopted by the Government following input from the research community, the enterprise sector and research funding departments and agencies.

(b) Grant Commitments

Outstanding Grant Commitments as at 01 January*	205,330	294,042
Grants Approved during the year	297,194	77,035
Decommitments during the year	(6,973)	(8,820)
Grant Payments made in the year	(152,310)	(156,927)
Outstanding Commitments as at 31 December	343,241	205,330

* Charles Parsons Energy Awards, formerly under the Department of Communications, Energy and Natural Resources (DCENR) were transferred to the Department of Jobs, Enterprise and Innovation (DJEI) in December 2009, at which time Science Foundation Ireland were requested to formally manage and administer the awards.

Under the agreed instalments final payments on these awards amounting to €3,936,000 were made in December 2013.

Notes to the Accounts

For the year ended 31 December 2013

8 Capital Account

	2013 €'000	2012 €'000
At 1 January	386	439
Transfer from Income & Expenditure Account		
- To fund Fixed Asset acquisitions	100	179
- Cost of Disposals	-	(548)
- Amortised in line with asset depreciation	(237)	(232)
- Depreciation on Disposals	-	548
Net Movement	(137)	(53)
At 31 December	249	386

9 Accounts Receivable

	2013 €'000	2012 €'000
General Debtors*	53	92
Prepayments	331	257
Total	384	349

* * General Debtors includes ESA funding due for 2013 of €40,000 (2012: €65,778)

10 Accounts Payable

	2013 €'000	2012 €'000
General Creditors	21	52
Accruals	150	115
Deferred Income JPI 2013*	-	153
Interagency Balance - IDA**	41	-
Interagency Balance - Forfás**	2	33
Total	214	353

* EU funding for JPI Joint Programming Conference "Agenda for Future & Achievements to Date" which took place in Dublin in early 2013 under the Irish Presidency of the Council of the European Union. Unused funds were repaid to the EU in 2013.

**Interagency Balances relate to the balances owed by Science Foundation Ireland to IDA and Forfás at 31 December 2013, being the difference between the amount of money paid to IDA and Forfás by Science Foundation Ireland and the actual money spent by IDA and Forfás on behalf of Science Foundation Ireland.

11 Commitments under Operating Leases

Science Foundation Ireland is a tenant of IDA (formerly under Forfás tenancy) in Wilton Park House and currently has no commitments under operating leases on the building, but pays rent to IDA as a contribution to the lease costs incurred by IDA.

Notes to the Accounts

For the year ended 31 December 2013

12 Taxation

Section 227 of the Taxes Consolidation Act, 1997, provides an exemption from tax on the income of non-commercial state bodies except where interest is subject to tax at source (e.g. DIRT). The net amount of such income is credited to the Income & Expenditure Account.

SFI is liable to employer taxes in Ireland and complies with related withholding, reporting and payment obligations.

13 Board Members - Disclosure of Transactions

In the normal course of business, Science Foundation Ireland may enter into contractual arrangements with undertakings in which Science Foundation Ireland Board Members are employed or otherwise interested. Science Foundation Ireland has adopted procedures in accordance with the guidelines issued by the Minister for Public Expenditure and Reform in relation to the disclosure of interests by Board Members and these procedures have been adhered to by Science Foundation Ireland during the year.

There were no transactions involving Board members during the year.

14 Contingencies and Legal Actions

There are no contingencies or legal actions which require specific provision in the Financial Statements.

15 Pensions

A government decision has been taken to dissolve Forfás. The draft Industrial Development (Forfás) Dissolution Bill 2013, includes a provision to recognise Science Foundation Ireland as a separate legal employer and to establish a superannuation scheme for Science Foundation Ireland staff. The aforementioned will require Science Foundation Ireland to account for the associated pension liabilities under FRS 17 when the Bill is enacted. At the time of writing the Bill has yet to be passed.

16 Approval of Financial Statements

The Financial Statements were approved by the Board of Science Foundation Ireland on 9th June 2014.

Grant Commitments and Payments Analysis 2013

2013 Payments by Programme	
	€'000
SFI Research Centres	48,186,875
Investigators	37,828,797
CSET	19,037,920
SRC	10,688,899
TIDA	8,758,342
Research Frontiers Programme	4,366,664
International Strategic Cooperation Award	4,096,484
Charles Parsons Energy Research Awards	3,936,338
SIRG	2,996,350
STOKES	2,291,168
European Research Council Support Award	2,047,428
Industry Fellowship	1,658,828
President of Ireland Young Researcher Award (PIYRA)	1,442,357
US Ireland R&D Partnership	732,364
Research Professorship Programme	720,750
Centres	650,000
European Research Council Development Award	597,995
Conference & Workshop	589,664
SFI Internship	503,184
Engineering - Professorship and Lectureship programme	400,412
SFI Discover Programme Strategic Projects	320,000
Translational Research Awards	177,647
Maths Initiative	141,524
Joint Programming Initiatives	90,497
NanoSci-E+ Transnational Call	62,123
Walton	55,943
HRB/Wellcome Trust	44,320
North-South supplement	8,174
Research Infrastructure	(3,903)
SFI Scholarship Summer Research Internship	(4,810)
Short Term Travel Fellowship	(111,840)
Grand Total	152,310,493

2013 Payments by Institution	
	€'000
University College Dublin	36,410,650
Trinity College Dublin	35,156,303
University College Cork	23,452,668
University of Limerick	15,042,645
National University of Ireland, Galway	11,005,887
Tyndall National Institute	9,922,508
Dublin City University	9,912,460
National University of Ireland Maynooth	3,424,580
Royal College of Surgeons in Ireland	2,418,193
Waterford Institute of Technology	1,253,729
University of Ulster	731,402
Dublin Institute of Technology	639,770
Cork Institute of Technology	483,534
Dublin Institute for Advanced Studies	478,184
Queen's University Belfast	398,711
Institute of Technology Tallaght	306,152
Institute of Technology Sligo	252,119
Health Research Board	221,967
Teagasc	194,802
Royal Dublin Society RDS	183,000
NIBRT	123,864
Institute of Technology Carlow	111,307
Dundalk Institute of Technology	91,829
Royal Irish Academy	33,805
St. Patrick's Day Festival	31,977
Athlone Institute of Technology	28,447
Grand Total	152,310,493

Note: Certain awards made to NUIG are co-funded by the European Regional Development Fund and the National Strategic Reference Framework EU Structure Funds (NSRF).



2013 Grant Commitments by Programme	
	1'000
SFI Research Centres	203,118,155
Investigator Programme - Investigator Award	45,673,472
Investigator Programme - Investigator Project	13,833,803
TIDA	9,739,223
Research Professorship Programme	6,230,733
International Strategic Cooperation Award	4,551,649
President of Ireland Young Researcher Award (PIYRA)	3,240,531
European Research Council Support Award	2,274,920
Industry Fellowship	1,843,144
US-Ireland R&D Partnership	1,826,364
European Research Council Development Award	1,493,093
SFI Internship	972,797
Conference & Workshop	729,364
HRB/Wellcome Trust	719,728
SFI Discover Programme Strategic Projects	580,000
Joint Programming Initiatives	248,819
Principal Investigator Supplement	79,921
TIDA Training Award 2013	21,000
US Ireland R&D Partnership Planning Grant	17,396
Grand Total	297,194,111

2013 Number of Awards by Institution	
Trinity College Dublin	73
University College Dublin	62
National University of Ireland, Galway	28
Dublin City University	25
University College Cork	23
National University of Ireland Maynooth	19
University of Limerick	16
Royal College of Surgeons in Ireland	14
Tyndall National Institute	14
Waterford Institute of Technology	8
Dublin Institute of Technology	7
Health Research Board	3
Institute of Technology Sligo	3
Institute of Technology Tallaght	3
Royal Irish Academy	3
Royal Dublin Society RDS	2
Cork Institute of Technology	1
Dublin Institute for Advanced Studies	1
Institute of Technology Carlow	1
St. Patrick's Day Festival	1
Grand Total	307

2013 Number of Awards by Programme	
TIDA	83
Conference & Workshop	55
Investigator Programme - Investigator Project	50
Investigator Programme - Investigator Award	33
Industry Fellowship	21
SFI Internship	11
European Research Council Support Award	8
SFI Research Centres	7
International Strategic Cooperation Award	6
TIDA Training Award 2013	6
US Ireland R&D Partnership Planning Grant	6
US-Ireland R&D Partnership	5
HRB/Wellcome Trust	3
President of Ireland Young Researcher Award (PIYRA)	3
European Research Council Development Award	3
SFI Discover Programme Strategic Projects	3
Principal Investigator Supplement	2
Joint Programming Initiatives	1
Research Professorship Programme	1
Grand Total	307

List of SFI awards made in 2013

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
K.B Hodnett	SFI Research Centres	Synthesis and Solid State Pharmaceutical Centre (SSPC)	University of Limerick	28,131,618
Paul Townsend	SFI Research Centres	I-PIC Irish Photonic Integration Research Centre	Tyndall National Institute	19,612,064
Fergus Shanahan	SFI Research Centres	Alimentary Pharmabiotic Centre (APC) - Interfacing Food & Medicine	University College Cork	35,940,483
Louise Kenny	SFI Research Centres	Irish Centre for Fetal and Neonatal Translational Research (INFANT)	University College Cork	7,648,779
Conchur O Bradaigh	SFI Research Centres	Marine Renewable Energy Ireland (MaREI) - The SFI Centre for Marine Renewable Energy Research	University College Cork	18,906,913
Stefano Sanvito	SFI Research Centres	Advanced Materials and BioEngineering Research Centre (AMBER)	Trinity College Dublin	35,171,607
Barry Smyth	SFI Research Centres	INSIGHT - Irelands Big Data and Analytics Research Centre	University College Dublin	57,706,691
Amir Khan	Investigator Programme - Investigator Award	Molecular Aspects of Immune Evasion and Subversion of Membrane Trafficking by Pathogens	Trinity College Dublin	1,226,974
Martin Caffrey	Investigator Programme - Investigator Award	Membrane Structural and Functional Biology. Tackling communicable and non-communicable diseases at the membrane level.	Trinity College Dublin	2,486,071
Igor Shvets	Investigator Programme - Investigator Award	Science of p-type transparent conducting oxides: materials towards transparent electronics	Trinity College Dublin	1,931,601
Thomas Brazil	Investigator Programme - Investigator Award	Green Power Amplifier Technologies for Future Wideband Reconfigurable Wireless Communication Systems (GrepATech)	University College Dublin	986,845
Paul Townsend	Investigator Programme - Investigator Award	Next Generation Photonic Access and Data Communication Systems	Tyndall National Institute	2,570,494
Yurii Gun'ko	Investigator Programme - Investigator Award	Chiral inorganic nanomaterials	Trinity College Dublin	808,461
Pavel Baranov	Investigator Programme - Investigator Award	Development of computational resources for the analysis of Genome Wide Information on Protein Synthesis (GWIPS).	University College Cork	1,614,124
Kevin Sullivan	Investigator Programme - Investigator Award	Structure and assembly of vertebrate kinetochore-associated chromatin	National University of Ireland, Galway	387,000
David Gregg	Investigator Programme - Investigator Award	Data-centric ultra-low power embedded computing	Trinity College Dublin	563,270
Paul Murphy	Investigator Programme - Investigator Award	Glycoside & glycoconjugate synthesis through development and application of chelation induced anomerization	National University of Ireland, Galway	1,010,355
Graeme Watson	Investigator Programme - Investigator Award	Understanding the role of interfaces in solid oxide fuel cell efficiency: Optimising materials through predictive computer simulation	Trinity College Dublin	905,911
Ed Lavelle	Investigator Programme - Investigator Award	Modulation of innate and adaptive immunity by particulate adjuvants for improved parenteral and mucosal vaccination	Trinity College Dublin	1,797,269

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Paul McLoughlin	Investigator Programme - Investigator Award	The role of the bone morphogenetic antagonist gremlin in the pathogenesis of chronic hypoxic lung disease	University College Dublin	1,313,053
Luke O'Neill	Investigator Programme - Investigator Award	Novel regulators of the Nlrp3 inflammasome and IL-1beta: prospects for novel therapeutics and diagnostics for inflammatory diseases	Trinity College Dublin	2,385,259
Daniel J Kelly	Investigator Programme - Investigator Award	A tissue engineered biological joint replacement prosthesis for the treatment of degenerative joint disease	Trinity College Dublin	1,717,736
Kevin Devine	Investigator Programme - Investigator Award	Cell wall metabolism in Gram positive bacteria: investigating its regulation and exploiting its therapeutic potential	Trinity College Dublin	1,240,385
Dermot Brabazon	Investigator Programme - Investigator Award	Laser processing for fabrication of advanced liquid chromatographic systems	Dublin City University	821,142
Stephen Fahy	Investigator Programme - Investigator Award	Ultrafast energy dissipation in semimetals and semiconductors: Simulation based on first-principles electronic structure theory	Tyndall National Institute	1,299,545
Thomas Ritter	Investigator Programme - Investigator Award	Novel therapeutic approaches to improve corneal allograft survival by cell and gene therapy and insights into the mechanism of action	National University of Ireland, Galway	1,301,813
Stephen Connon	Investigator Programme - Investigator Award	Anhydrides as nucleophiles in new catalytic asymmetric processes: development, scope expansion and application in drug development	Trinity College Dublin	1,404,834
Ciona O'Farrelly	Investigator Programme - Investigator Award	Is Natural Resistance to Hepatitis C in an Irish Cohort Associated with JAK/STAT Resistance to HCV Targeting? Towards New Anti-Viral Strategies	Trinity College Dublin	1,742,265
Johannes Klaas Slingerland	Investigator Programme - Investigator Award	Topological Order and Fault Tolerant Quantum Computation	National University of Ireland, Maynooth	720,022
Paul Moynagh	Investigator Programme - Investigator Award	Defining the roles and mechanisms of action of Pellino proteins in immunity and inflammatory diseases	National University of Ireland, Maynooth	2,042,513
John Costello	Investigator Programme - Investigator Award	Stagnation Layers in Laser Ablation Based Analytical Techniques	Dublin City University	816,951
Yvonne Nolan	Investigator Programme - Investigator Award	The nuclear receptor TLX as a cell intrinsic regulator underlying inflammation and stress-induced changes in hippocampal neurogenesis: relevance to cognitive disorders	University College Cork	1,082,496
Kenneth Dawson	Investigator Programme - Investigator Award	Biological Identity of Nanoparticles Dispersed in Biological Media	University College Dublin	1,760,953
Geraldine Butler	Investigator Programme - Investigator Award	Post-genomic analysis of biofilm and virulence characteristics of the pathogenic yeast, Candida parapsilosis.	University College Dublin	1,361,100
Leonie Young	Investigator Programme - Investigator Award	SRC-1 mediation of cancer cell reprogramming in endocrine resistant breast cancer	Royal College of Surgeons in Ireland	681,544
Suzi Jarvis	Investigator Programme - Investigator Award	Nanoscale aqueous-substrate interfaces	University College Dublin	1,233,926
Werner Blau	Investigator Programme - Investigator Award	Systematic Bottom-Up Assembly of Nanocarbon Based Photonic Materials	Trinity College Dublin	597,214

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Mani Ramaswami	Investigator Programme - Investigator Award	Translational control of neuronal mRNAs: its mechanisms, and roles in memory and neurodegeneration.	Trinity College Dublin	1,430,853
Stephen O'Brien	Investigator Programme - Investigator Award	Applied mathematical modelling applied to enterprise, science and technology (MACSI)	University of Limerick	2,760,315
John Boland	Investigator Programme - Investigator Award	Atom Level Engineering of Material-on-Insulator Devices and Sensors	Trinity College Dublin	1,671,178
Ken Duffy	Investigator Programme - Investigator Project	Quantitative analysis of immune cell fate: stochastic competition and censorship	National University of Ireland, Maynooth	228,820
Paula Colavita	Investigator Programme - Investigator Project	Understanding lipid/carbon interactions for the rational design of biomaterials	Trinity College Dublin	306,216
Eithne Dempsey	Investigator Programme - Investigator Project	Implementation of Gold Quantitation Immuno-Electrochemistry (AURO-QUANT)	Institute of Technology Tallaght	353,600
David Finlay	Investigator Programme - Investigator Project	Characterising the role of mammalian Target Of Rapamycin Complex 1 (mTORC1)/Srebp1c signaling in directing the differentiation and function of T cell subsets.	Trinity College Dublin	261,650
Gerard McGlacken	Investigator Programme - Investigator Project	The Direct Arylation of Pyrones, Coumarins, Pyridones and Quinolones	University College Cork	377,093
Leigh Jones	Investigator Programme - Investigator Project	The Strategic Construction of Magnetic Coolant Materials	National University of Ireland, Galway	178,476
Gary Donohoe	Investigator Programme - Investigator Project	Characterising the neural basis of social cognition deficits in schizophrenia using imaging genetics	Trinity College Dublin	284,651
Nathan Stevenson	Investigator Programme - Investigator Project	Automated assessment of brain maturation in the preterm infant using EEG	University College Cork	145,698
Bernie Creaven	Investigator Programme - Investigator Project	Novel Dual SOD/CAT mimics: New Therapeutic Strategy for Oxidative Stress Related Diseases?	Institute of Technology Tallaght	203,300
Emma Creagh	Investigator Programme - Investigator Project	Identification & Functional Characterisation of Novel Inflammatory Mediators	Trinity College Dublin	209,747
Ann Marie Healy	Investigator Programme - Investigator Project	Co-processing of active pharmaceutical ingredients with functional excipients to prevent unintentional generation of amorphous phase	Trinity College Dublin	188,919
Mary Frances Heaney	Investigator Programme - Investigator Project	"Clickable" Azobenzenes, New Molecular Glues for Generation of Photoresponsive Biomolecular Scaffolds capable of Answering Biological Questions	National University of Ireland, Maynooth	213,839
Nial Friel	Investigator Programme - Investigator Project	Advances for the probabilistic analysis of network data	University College Dublin	289,240
Garry Fleming	Investigator Programme - Investigator Project	DENTAL glass-ionomer restoratives: Development of an Enhanced Novel Tailored Aesthetic Ligand based glass-ionomer restorative	Trinity College Dublin	309,617
Miguel Bustamante	Investigator Programme - Investigator Project	Genesis and Development of Extreme Events in Fluids	University College Dublin	285,811

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
John Atkins	Investigator Programme - Investigator Project	Using ribosome profiling to study translation initiation/elongation and facilitate optimization of protein synthesis	University College Cork	381,034
David Clarke	Investigator Programme - Investigator Project	Characterization of choA, a gene encoding a novel cholesterol-degrading activity in the human gut microbiome	University College Cork	244,360
Nicolas Touzet	Investigator Programme - Investigator Project	Physiology and molecular biology of microalgae for the biorefining of valuable metabolites	Institute of Technology Sligo	380,744
Dagmar Stengel	Investigator Programme - Investigator Project	Iodine in commercially valuable Irish seaweeds: variability, pathways, and implications for industrial applications	National University of Ireland, Galway	244,843
Corrado Santocanale	Investigator Programme - Investigator Project	Cdc7 regulation of Claspin stability and its effect on cell cycle checkpoint function	National University of Ireland, Galway	292,484
Xinmin Zhan	Investigator Programme - Investigator Project	Green Farm: Development of On-Farm Co-Digestion of the Organic Fraction of Municipal Solid Waste and Animal Manure for Bioenergy Production and Resource Recycling	National University of Ireland, Galway	361,011
Katherine Howell	Investigator Programme - Investigator Project	Elucidating the potential therapeutic role of Erythropoietin in the treatment of Emphysema	University College Dublin	348,344
Martin Glavin	Investigator Programme - Investigator Project	Breast Cancer detection and classification using Ultra Wideband Radar Tomography	National University of Ireland, Galway	246,467
Rachel McLoughlin	Investigator Programme - Investigator Project	Understanding cellular immunity to Staphylococcus aureus is required for novel anti-S. aureus vaccine design	Trinity College Dublin	384,042
Rachel McDonnell	Investigator Programme - Investigator Project	Cartoon Motion: Stylised facial animation from motion capture	Trinity College Dublin	272,270
Rachel Evans	Investigator Programme - Investigator Project	High-Efficiency Conjugated Polymer-Inorganic Hybrids as Luminescent Solar Concentrators for Photovoltaics	Trinity College Dublin	325,522
David O'Connell	Investigator Programme - Investigator Project	Novel affinity matrices for purification of biotherapeutics	University College Dublin	262,289
Vojislav Krstic	Investigator Programme - Investigator Project	Next-generation III-V Quasi-1D Nanowires for Advanced Future Information-Processing Circuitry	Trinity College Dublin	362,475
James Lunney	Investigator Programme - Investigator Project	Pulsed laser deposition of thin films at atmospheric pressure	Trinity College Dublin	252,595
David Chew	Investigator Programme - Investigator Project	Microanalysis of detrital apatite: a new provenance proxy in sedimentary systems	Trinity College Dublin	279,827
Derek Morris	Investigator Programme - Investigator Project	Gene discovery in schizophrenia using family-based sequencing methods	Trinity College Dublin	354,646
Tara McMorrow	Investigator Programme - Investigator Project	Molecular mechanisms of cilia loss in mammalian epithelial cells	University College Dublin	318,940
Wenxin Wang	Investigator Programme - Investigator Project	Development and Delivery of Nonviral S/MAR Minicircles for Long-term Type VII Collagen Gene expression for the Treatment of Recessive Dystrophic Epidermolysis Bullosa	National University of Ireland, Galway	267,292

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Sean Doyle	Investigator Programme - Investigator Project	A Vaccination Strategy Against <i>Aspergillus fumigatus</i> Infection	National University of Ireland, Maynooth	358,498
Grace Morgan	Investigator Programme - Investigator Project	Nano-Assembly of Functional Magnetic and Magneto-Optical Materials	University College Dublin	320,176
James Rohan	Investigator Programme - Investigator Project	Nanomaterials design and fabrication for Energy Storage	Tyndall National Institute	241,806
Patrick McGarry	Investigator Programme - Investigator Project	Active changes in artery structure and contractility in response to stenting	National University of Ireland, Galway	225,923
Dermot Brougham	Investigator Programme - Investigator Project	Long-circulating Magnetic Nanoparticles for Biomedical Applications through Mimetic Surface Chemistry	Dublin City University	199,000
Michael Gilchrist	Investigator Programme - Investigator Project	Characterising Mechanical Properties of Brain Tissue using Novel Micro Indentation Tests	University College Dublin	315,007
Darren Griffith	Investigator Programme - Investigator Project	Novel Strategy for Overcoming Chemoresistance and Toxicity Associated with Platinum Anti-cancer Compounds	Royal College of Surgeons in Ireland	192,030
John McInerney	Investigator Programme - Investigator Project	Pulsed semiconductor lasers for metrology and remote sensing: synchronisation and stabilisation dynamics	University College Cork	205,270
Sheila McBreen	Investigator Programme - Investigator Project	Advances in gamma-ray Space Science using Silicon Photomultipliers	University College Dublin	248,852
Fiona Lyng	Investigator Programme - Investigator Project	Identification of clinically important, high risk oral lesions using Raman spectroscopy	Dublin Institute of Technology	193,700
Alan Jones	Investigator Programme - Investigator Project	IRECCSEM: Evaluating Ireland's potential for onshore carbon sequestration and storage using electromagnetics	Dublin Institute for Advanced Studies	278,209
Jens Carlsson	Investigator Programme - Investigator Project	Taxonomy and connectivity of animal species at the Moytirra hydrothermal vent field: developing methods for assessing ecological impacts of mineral extraction in the deep-sea	University College Dublin	194,499
Jim Buckley	Investigator Programme - Investigator Project	Establishing best practice in Software Architecture Consistency Processes	University of Limerick	276,377
Fernando Rhen	Investigator Programme - Investigator Project	Nanostructured alloy for high-energy-efficient fuel cells	University of Limerick	174,880
Gianpiero Cavalleri	Investigator Programme - Investigator Project	The identification and characterisation of genomic signatures of hypoxia induced natural selection	Royal College of Surgeons in Ireland	381,150
James Rice	Investigator Programme - Investigator Project	Patterned nanomaterials using ferroelectric lithography for enhanced optical imaging	University College Dublin	241,205
Mario Fares	Investigator Programme - Investigator Project	Understanding the role of molecular chaperones in robustness and functional innovation	Trinity College Dublin	371,359

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Michael Coey	Principal Investigator Supplement	Nanoscale Interfaces and Spin Electronics	Trinity College Dublin	63,245
Emmeline Hill	Principal Investigator Supplement	A promotional film illustrating world-class science in horse genomics and the impact on the global bloodstock industry	University College Dublin	16,676
Michael Zaworotko	Research Professorship Programme	Crystal Engineering of Task-Specific Materials	University of Limerick	6,230,733
Jochen Prehn	Joint Programming Initiatives	microRNA as novel therapeutic targets and disease biomarkers in Alzheimer's Disease, Frontotemporal dementia and Amyotrophic lateral sclerosis (NEURO-MIR)	Royal College of Surgeons in Ireland	248,819
Carel Le Roux	PIYRA	Gastric bypass and the regression of kidney disease in Type 2 diabetes: identification of potential mechanisms.	University College Dublin	1,164,684
Matthew Campbell	PIYRA	Barriers of the CNS, tight junctions and novel therapeutic targets in neural disease.	Trinity College Dublin	1,010,754
Valeria Nicolosi	PIYRA	In-situ aberration-corrected transmission electron microscopy: real-time investigation of materials at atomic level	Trinity College Dublin	1,065,093
Liam Barry	TIDA Feasibility 2013	Pilot tone assisted QAM for Metropolitan optical transmission systems	Dublin City University	124,147
Dermot Diamond	TIDA Feasibility 2013	CIMAS: A portable platform for water quality monitoring at Point of Need	Dublin City University	101,500
Tia Keyes	TIDA Feasibility 2013	Microcavity Array Supported Lipid Bilayers; Biometric Test Beds for Drug-Membrane Interactions	Dublin City University	122,147
Jens Ducreé	TIDA Feasibility 2013	LoaD3 - High Performance, Multi-layer Lab-on-a-Disc System for a Cost-Efficient, Point-Of-Care Diagnostics	Dublin City University	122,278
Paul Leonard	TIDA Feasibility 2013	Protein engineering using novel artificial metalloenzymes	Dublin City University	126,955
Mary Pryce	TIDA Feasibility 2013	The Creation of Smart Electrodes by Novel Immobilisation Strategies for Use in CO2 Conversion Technologies	Dublin City University	125,509
Vitaly Efremov	TIDA Feasibility 2013	Mobile Laser diagnostics of skin conditions	Dublin City University	98,332
Greg Hughes	TIDA Feasibility 2013	Copper diffusion barrier layer formation on high carbon content dielectric materials for future interconnect applications	Dublin City University	123,645
Aoife Morrin	TIDA Feasibility 2013	A paper-based microfluidic analytical device (uPAD) for quantitative catecholamine analysis in urine	Dublin City University	80,675
Caitriona Lally	TIDA Feasibility 2013	The development of Novel Nitric Oxide releasing Biomaterials to Promote Stable Endothelialisation in Shear Environments	Dublin City University	122,309
Josef Van Genabith	TIDA Feasibility 2013	Monolingual and Bilingual Text Quality Judgements with Translation Performance Prediction	Dublin City University	119,670
Aidan Cowley	TIDA Feasibility 2013	Nanostructured Surface Areas for Filtration and Epidermal applications (nanoSAFE)	Dublin City University	105,547
Gerald Farrell	TIDA Feasibility 2013	Magneto-rheological Smart Composite With Embedded Optical Fiber Sensors For Medical Applications	Dublin Institute of Technology	111,085
Brian Norton	TIDA Feasibility 2013	Innovative metal oxide based probes for pH detection.	Dublin Institute of Technology	89,165
Max Amman	TIDA Feasibility 2013	Bandwidth Enhancement of Omni-directional Circularly Polarized Antennas	Dublin Institute of Technology	76,728
Qiang Wu	TIDA Feasibility 2013	High sensitivity optical chemical sensor for water quality monitoring	Dublin Institute of Technology	113,415
David Dowling	TIDA Feasibility 2013	Feasibility study to test the efficiency, reliability and commercial potential of Microbial Enhanced Bioswale (MEBS) systems for the treatment of Farmyard Dirty Water	Institute of Technology Carlow	118,625
Suresh C Pillai	TIDA Feasibility 2013	Development of low cost, near infrared (NIR) reflective and very low thermal conductivity advanced materials for energy efficient thermal insulations	Institute of Technology Sligo	123,358

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Siobhán McClean	TIDA Feasibility 2013	BPVacc: Development of a vaccine against melioidosis with Burkholderia pseudomallei antigens	Institute of Technology Tallaght	117,099
Charles Spillane	TIDA Feasibility 2013	Ploidy Barrier Bridger™: An Enabling Technology for Accelerating Plant Breeding and Crop Improvement	National University of Ireland, Galway	123,802
John Breslin	TIDA Feasibility 2013	Towards a social media repository of Ireland; An archive of Irish social media content, with applications in Business research and Event/ Trend Analysis	National University of Ireland, Galway	125,979
Matthew Griffin	TIDA Feasibility 2013	A Novel Way to Capture Extracellular Vesicles for Diagnostic Applications	National University of Ireland, Galway	129,221
Frank Barry	TIDA Feasibility 2013	Validation of a novel serum-free medium for production of human mesenchymal stem cells and establishment of in vivo efficacy in a bone model of repair	National University of Ireland, Galway	129,132
Paul Buitelaar	TIDA Feasibility 2013	Multi-source personalisation for E-commerce using customer reviews and linked open data	National University of Ireland, Galway	129,202
Stephen Cunningham	TIDA Feasibility 2013	The generation of an enzymatic tool-kit for the release of intact O-glycan structures	National University of Ireland, Galway	128,300
Thomas Barry	TIDA Feasibility 2013	Development of a microbial multiparametric nucleic acid diagnostics technology with potential application in the clinical, food and pharmaceutical industry sectors	National University of Ireland, Galway	81,705
Michelle Kilcoyne	TIDA Feasibility 2013	Novel method for multiple myeloma monitoring and prognostics	National University of Ireland, Galway	128,105
Stefan Decker	TIDA Feasibility 2013	VeritaWire: Towards a trusted social media newswire service	National University of Ireland, Galway	127,121
Paul Murphy	TIDA Feasibility 2013	Divergent synthesis of proprietary macrocyclic scaffolds and libraries for screening	National University of Ireland, Galway	128,799
Manfred Hauswirth	TIDA Feasibility 2013	PLoT - Personalised Linked Open Tours	National University of Ireland, Galway	129,250
John Findlay	TIDA Feasibility 2013	A new platform for surface modification involving specific attachment and slow release capacity	National University of Ireland, Maynooth	128,957
Stephen J Keely	TIDA Feasibility 2013	Farnesoid X-Receptor Agonists in Diarrhoeal Diseases – Novel Agents to Underpin and add Value to an Enabling Patent	Royal College of Surgeons in Ireland	128,849
Dermot Cox	TIDA Feasibility 2013	Development of proof-of-concept animal model for novel FcγRIIIa antagonists	Royal College of Surgeons in Ireland	128,805
Marc Devocelle	TIDA Feasibility 2013	Antimicrobial Peptide Mimetics-coated catheters.	Royal College of Surgeons in Ireland	91,765
Fergal O'Brien	TIDA Feasibility 2013	The Development of a Novel Construct for Peripheral Nerve Repair	Royal College of Surgeons in Ireland	126,852
Patrick Walsh	TIDA Feasibility 2013	A preclinical evaluation of a novel combination immunotherapy for Cancer	Trinity College Dublin	118,889
Graham Cross	TIDA Feasibility 2013	Solid State Thermal Interface Material	Trinity College Dublin	124,173
Cilona O'Farrelly	TIDA Feasibility 2013	PCR Generated Domain Antibodies: New Tools for Bovine Interferon γ Diagnostic Kits	Trinity College Dublin	113,565
Aisling Dunne	TIDA Feasibility 2013	Assessment of marine derived linear tetrapyrroles for use in the functional/nutraceutical food industry	Trinity College Dublin	128,980

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Gerard Boyle	TIDA Feasibility 2013	Measurement Technology: A non invasive tool for assessing patients in critical care.	Trinity College Dublin	105,105
John Donegan	TIDA Feasibility 2013	Monolithic optical coherent receiver	Trinity College Dublin	124,245
Johann de Silva	TIDA Feasibility 2013	High Speed Diamond Atomic Force Microscopy Probes	Trinity College Dublin	125,473
Paul Sutton	TIDA Feasibility 2013	Scalable core network for user-deployed small cells	Trinity College Dublin	107,173
Louise Bradley	TIDA Feasibility 2013	Pixel Demonstrator for Actively Tuned Reflective Plasmonic Display	Trinity College Dublin	122,273
Igor Shvets	TIDA Feasibility 2013	Non-contact measurement of high voltage from power lines	Trinity College Dublin	126,100
P. Ramesh Babu	TIDA Feasibility 2013	Flexible Pressure Sensor-Electrode Assemblies for Medical Device Applications	Trinity College Dublin	120,083
Aran Rafferty	TIDA Feasibility 2013	Novel inorganic monoliths for chromatographic applications	Trinity College Dublin	126,089
Jonathan Coleman	TIDA Feasibility 2013	Upscaling the exfoliation of inorganic layered compounds	Trinity College Dublin	106,309
Yurii Gun'ko	TIDA Feasibility 2013	Development of new nanoparticle based antibacterial coatings	Trinity College Dublin	120,832
Jian Zhao	TIDA Feasibility 2013	Low cost spectrally-efficient optical transceivers for smart and high-performance optical transmission systems	Tyndall National Institute	99,909
Lynette Keeney	TIDA Feasibility 2013	New memory cell test structure devices based on single phase multiferroics	Tyndall National Institute	128,755
Donagh O'Mahony	TIDA Feasibility 2013	Advanced substrate engineering for high efficiency III-V solar cells (ASICS)	Tyndall National Institute	123,575
Brian Corbett	TIDA Feasibility 2013	Extended wavelength photodiodes using Si-Ge wafer bonding	Tyndall National Institute	124,745
Alan Mathewson	TIDA Feasibility 2013	Wide bandwidth cantilever structures for MEMS vibrational energy saving	Tyndall National Institute	123,675
Brendan Roycroft	TIDA Feasibility 2013	Narrow linewidth tunable lasers for coherent telecommunications	Tyndall National Institute	113,477
Colm O'Dwyer	TIDA Feasibility 2013	LiONSKIN – Moldable Li-ion battery outer skin for electronic devices	University College Cork	108,334
Joe Eustace	TIDA Feasibility 2013	Randomized Trial of Superficial Nosocomial Infections in Radica™ Compared to Routinely Cleaned Isolation Rooms	University College Cork	126,850
Fergal O'Gara	TIDA Feasibility 2013	Small molecule inhibitors of HIF-1: a new class of anti-cancer therapeutics	University College Cork	128,111
Tom Moore	TIDA Feasibility 2013	Use of PSG1 protein as a therapeutic agent in wound healing	University College Cork	123,949
Therese Kinsella	TIDA Feasibility 2013	Characterization of Novel Thromboxane Receptor Antagonists: Efficacy Studies to Prioritize the Target Market.	University College Dublin	129,550
David MacHugh	TIDA Feasibility 2013	Development and Validation of Novel Circulating microRNA Biomarkers for Bovine Tuberculosis	University College Dublin	111,799
Margaret McGee	TIDA Feasibility 2013	Development of a novel phosphorylation site-specific antibody for Protein Tyrosine Phosphatase 1B	University College Dublin	121,955
Debra Laefer	TIDA Feasibility 2013	3D Printing from remote sensing	University College Dublin	111,323
Shane Ward	TIDA Feasibility 2013	Monitoring the health and welfare of broiler chickens using smart vocalisation analysis techniques - ChirpMetrics	University College Dublin	119,215
Breandán Kennedy	TIDA Feasibility 2013	Developing Intravitreal Microparticles as a Delivery Mechanism for Small Molecule Inhibitors of Ocular Neovascularisation and Inflammation	University College Dublin	125,755
Dominic Zerulla	TIDA Feasibility 2013	Development and Commercialisation of a novel Plasmonically assisted high efficiency Solar Cell Technology	University College Dublin	74,904
Orla Feely	TIDA Feasibility 2013	ASIC Implementation of a dielectric charge control circuit of RF MEMS Switches	University College Dublin	124,259

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David Brayden	TIDA Feasibility 2013	Incorporation of a novel permeation enhancer with hyaluronic acid-based insulin nanoconjugates to deliver oral insulin	University College Dublin	120,481
Madeline Murphy	TIDA Feasibility 2013	Novel Biomarkers for Early Diagnosis of Diabetic Nephropathy	University College Dublin	124,672
Andrew Phillips	TIDA Feasibility 2013	Development of Hybrid Catalytic Magnetic Nanoparticles for Efficient and Safe Hydrogen Storage	University College Dublin	113,523
John Crean	TIDA Feasibility 2013	Prognostic and Diagnostic exploitation of a cohort of Bone Morphogenetic Protein Superfamily targeting miRNAs in Diabetic Nephropathy	University College Dublin	118,609
Stephen Carrington	TIDA Feasibility 2013	A predictive test for endometritis in cows for improved reproductive management in dairy herds	University College Dublin	122,680
David O'Connell	TIDA Feasibility 2013	A novel protein display technology to expand and enhance biosensor measurement of therapeutic molecule kinetics	University College Dublin	106,497
Brian Rodriguez	TIDA Feasibility 2013	The Soft BioPrinter: a low-cost, rapid prototyping desktop solution for producing organotypic microtissues	University College Dublin	75,560
Kevin O'Connor	TIDA Feasibility 2013	Biocompatible biopolymer as a neural cell regeneration scaffold (smart material for tissue regeneration)	University College Dublin	114,745
Patrick Frawley	TIDA Feasibility 2013	Process Modelling : Kinetics to Optimisation of productivity and product attributes	University of Limerick	111,855
Christophe Sillien	TIDA Feasibility 2013	Non-destructive chemical imaging for 10 nm node transistors	University of Limerick	121,519
Gabriel Leen	TIDA Feasibility 2013	Evaluating the commercial feasibility of a pressure sensing technology which is based on biocompatible optical fibres for applications in urology and cardiology	University of Limerick	105,146
Peter McLoughlin	TIDA Feasibility 2013	The develop of a prototype contact lens for the treatment of a side range of acute and chronic ocular inflammatory conditions	Waterford Institute of Technology	129,196
Brendan Jennings	TIDA Feasibility 2013	A dimensioning Tool for Access Control Systems (ATLAS)	Waterford Institute of Technology	118,027
Willie Donnelly	TIDA Feasibility 2013	Real-Time Communications Quality Assessment Tool (RTC-QAT)	Waterford Institute of Technology	127,709
Ravindranathan Thampi	TIDA - Fast Track	Enabling early market entry for dye sensitised solar cells	University College Dublin	129,978
Cathal Gurrin	TIDA - Fast Track	Eye-Aware - Real-time contextual understanding for wearable computing	Dublin City University	121,569
Robert Forster	TIDA Training Award 2013	GeneSys: A high sensitivity and selectivity DNA detection platform	Dublin City University	3,500
Marina Lynch	TIDA Training Award 2013	Development of a blood-based marker for early detection of cognitive dysfunction	Trinity College Dublin	3,500
Bryan Hennelly	TIDA Training Award 2013	TIDA Training Award	National University of Ireland, Maynooth	3,500
Anne Moore	TIDA Training Award 2013	TIDA Training Award	University College Cork	3,500
Caitriona O' Driscoll	TIDA Training Award 2013	TIDA Training Award	University College Cork	3,500
Suzanne Foley	TIDA Training Award 2013	TIDA Training Award	University College Dublin	3,500
Kenneth Gavin	US-Ireland R&D Partnership	Novel Foundation for Green Energy - An Innovative Foundation for Offshore Wind Developments	University College Dublin	391,861
Guillaume Huyet	US-Ireland R&D Partnership	Femtojoule-per-bit Communications with Nanopillar Lasers on Si	Cork Institute of Technology	331,058
Alan O'Riordan	US-Ireland R&D Partnership	Multichannel disposable sensors for animal health disease diagnostics	Tyndall National Institute	379,554

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Daniel Kelly	US-Ireland R&D Partnership	Development of a Novel Bioinspired Fiber Reinforced Hydrogel that Recapitulates Developmental Processes to Regenerate the Bone-Ligament Interface	Trinity College Dublin	331,031
Martyn Pemble	US-Ireland R&D Partnership	Research into Emerging Nano-structured Electrodes for the splitting of Water (RENEW)	Tyndall National Institute	392,860
Graham Cross	US Ireland R&D Partnership Planning Grant	Performance of novel carbon-based nanoelectromechanical (NEMS) switches studied by AFM and in-situ TEM and environmental SEM microscopy	Trinity College Dublin	2,800
Noel O'Connor	US Ireland R&D Partnership Planning Grant	A PATHway through Digital Connectivity (PATH = Physical Activity Towards Health)	Dublin City University	4,494
Eugene O'Brien	US Ireland R&D Partnership Planning Grant	Future Vision of Bridge Health	University College Dublin	2,585
Orla Hardiman	US Ireland R&D Partnership Planning Grant	Multimodal Deep Phenotyping of ALS	Trinity College Dublin	3,330
Gabriel Leen	US Ireland R&D Partnership Planning Grant	TELERETI – Enabling Technology for Tele-Operated Retinal Surgery	University of Limerick	2,465
Laoise McNamara	US Ireland R&D Partnership Planning Grant	Risk factors for seated buttock deformation in pressure ulceration	National University of Ireland, Galway	1,722
Brian Fitzgerald	Conference & Workshop	37th Annual International Conference on Information Systems (ICIS), 2016	University of Limerick	50,000
Vladimir Dotenko	Conference & Workshop	9th William Rowan Hamilton Geometry & Topology Workshop	Trinity College Dublin	6,200
PWilliam Donnelly	Conference & Workshop	Future internet Assembly (FIA-Dublin)	Waterford Institute of Technology	20,000
Brian Harvey	Conference & Workshop	International BioPhotonics & Imaging Conference BioPic 2013	Royal College of Surgeons in Ireland	5,610
Edelle Moss	Conference & Workshop	Science Zone at the Festival Big Day Out	St. Patrick's Day Festival	32,000
Claire Mulhall	Conference & Workshop	The Festival of Curiosity – an annual Dublin Science Festival building on the legacy of Dublin City of Science 2012	Royal Dublin Society RDS	70,000
Robert Osburn	Conference & Workshop	The 27th Automorphic Forms Workshop	University College Dublin	2,000
Simon Wilson	Conference & Workshop	Third Symposium on Games and Decisions in Reliability and Risk	Trinity College Dublin	2,000
Brian Rodriguez	Conference & Workshop	Electromechanical Coupling and Electrostatics in Biological Systems	University College Dublin	3,160
Maria Bardosova	Conference & Workshop	ECO F 13 (Thirteenth European Conference on Organised Films)	Tyndall National Institute	7,375
Fiona Lyng	Conference & Workshop	40th Annual Meeting of the European Radiation Research Society (ERR 2013)	Dublin Institute of Technology	2,000
Plohn Cryan	Conference & Workshop	The 8th Neuroscience Ireland Conference in conjunction with the Biochemical Society Irish Area Section Annual Meeting	University College Cork	6,200
Kingston Mills	Conference & Workshop	10th International Symposium on Bordetella	Trinity College Dublin	8,000
Pauric Dempsey	Conference & Workshop	Dublin Talks.ie	Royal Irish Academy	12,000
James Gleeson	Conference & Workshop	Problem Solving with Industry (ESGI 93)	University of Limerick	10,000
Peter Gallagher	Conference & Workshop	The European Space Expo – Highlighting the Benefits of Space Science and Technology to Ireland	Trinity College Dublin	27,000

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Tomas Ward	Conference & Workshop	The Dublin Mini Maker Faire 2013	National University of Ireland, Maynooth	10,000
Damian Flynn	Conference & Workshop	Universitas 21 Graduate Research Conference in Energy (Systems, Policy & Solutions)	University College Dublin	5,500
Cathal Gurrin	Conference & Workshop	MMIM2014: The 20th International Conference on Multimedia Modelling	Dublin City University	10,000
Rachel McLoughlin	Conference & Workshop	Staph-GBI 2013	Trinity College Dublin	7,000
Rachel McDonnell	Conference & Workshop	Motion in Games 2013	Trinity College Dublin	2,300
Reinhard Schaler	Conference & Workshop	18th Annual Internationalisation and Localisation Conference	University of Limerick	5,000
Joseph Timoney	Conference & Workshop	The 16th International Conference on Digital Audio Effects (DAFX)	National University of Ireland, Maynooth	4,000
Bernie Quilligan	Conference & Workshop	UL Science Week	University of Limerick	5,000
Muriel Grenon	Conference & Workshop	The Cell EXPLORERS Roadshow	National University of Ireland, Galway	15,000
Jeremy Bird	Conference & Workshop	Motiavating and Advancing Regional Science	Institute of Technology Sligo	10,000
Sandra Collins	Conference & Workshop	Researcher for a Night	Royal Irish Academy	9,000
Philip Smyth	Conference & Workshop	Thesis in 3	University College Dublin	3,000
Desmond Fitzgerald	Conference & Workshop	UCD Science Expression	University College Dublin	25,000
Sheila Donegan	Conference & Workshop	The Robert Boyle Science Week	Waterford Institute of Technology	12,000
Eoin Gill	Conference & Workshop	Robert Boyle Summer School	Waterford Institute of Technology	5,000
John O'Donoghue	Conference & Workshop	The Mallow Festival of Science/ North Munster & Region Maths Week	University of Limerick	8,000
Jill Haynes	Conference & Workshop	STEM in Society Challenge	University College Cork	7,000
Mary Colcough	Conference & Workshop	Cool Jobs	Trinity College Dublin	10,000
Eoin Gill	Conference & Workshop	Maths week Ireland 2013	Waterford Institute of Technology	35,000
Ivan Perry	Conference & Workshop	mHealthED 2013 - New Digital Media Content and Delivery: Revolutionising Global Health Education and Training	University College Cork	10,000
Eric Moore	Conference & Workshop	Micro-Nano-Bio Convergence Systems Workshop and European Platform on Smart Systems Integration General Assembly and Annual Forum 2013 Joint Event	University College Cork	2,500
Dominic Dillane	Conference & Workshop	ENTER 2014	Dublin Institute of Technology	8,000
Stephen Gordon	Conference & Workshop	ANIMAL HEALTH: A Cornerstone of Sustainable and Profitable Farming	University College Dublin	4,000
David Gallagher	Conference & Workshop	Gathering Around Cancer	University College Dublin	5,000
Miles Turner	Conference & Workshop	PLASMAS AS A PLATFORM - Advanced laser and plasma processing in - ICT, Healthcare, Agriculture and Energy sectors	Dublin City University	3,040
Christopher Bean	Conference & Workshop	Earth Gathering	University College Dublin	10,000
Ronan Reilly	Conference & Workshop	Recent progress in the computational modelling of Chinese reading	National University of Ireland, Maynooth	2,000

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Denis Shields	Conference & Workshop	4th Annual PhD Symposium in Computational Biology & Innovation	University College Dublin	2,761
Kieran Conboy	Conference & Workshop	Lean Enterprises Software and Systems (LESS 2013)	National University of Ireland, Galway	4,000
Apryl Stalcup	Conference & Workshop	Gathering Global Perspectives on Opportunities for Industrial Innovation through Separation Science	Dublin City University	4,468
Ann Hopkins	Conference & Workshop	Irish Association for Cancer Research annual conference 2014	Royal College of Surgeons in Ireland	8,000
Sandra Collins	Conference & Workshop	Research Data Alliance - Third Plenary Conference	Royal Irish Academy	15,000
Jens Ducreé	Conference & Workshop	The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (μ TAS 2016)	Dublin City University	75,000
Valeria Nicolosi	Conference & Workshop	Flatlands beyond Graphene 2014	Trinity College Dublin	16,250
John Atkins	Conference & Workshop	Recoding: Reprogrammed Genetic Coding	University College Cork	8,000
Bruce Osborne	Conference & Workshop	Plant Biology Europe FESPB-EPSo 2014 Congress	University College Dublin	50,000
Matthew Campbell & Pete Humphries	Conference & Workshop	17th International Symposium on Signalling at the Blood-Brain and Blood-Retina Barriers	Trinity College Dublin	11,000
Nick Campbell	Conference & Workshop	7th International Conference on Speech Prosody	Trinity College Dublin	6,500
Jagdish Vij	Conference & Workshop	25th International Liquid Crystals Conference (ILCC2014)	Trinity College Dublin	32,500
Mike Coey	ERC Development	Magnetic Nucleation Mysteries	Trinity College Dublin	533,816
Balz Kamber	ERC Development	Impact basin volcanism: A comprehensive test of a possible analogue to early Earth rock forming processes	Trinity College Dublin	508,295
Caitriona Lally	ERC Development	Frontier research in arterial fibre remodelling for vascular disease diagnosis and tissue engineering	Dublin City University	450,982
Des Fitzgerald	ERC Support	SFI ERC Support - Debra Laefer	University College Dublin	300,000
Des Fitzgerald	ERC Support	SFI ERC Support - Emma Teeling	University College Dublin	299,953
Vinny Cahill	ERC Support	SFI ERC Support - Stefano Sanvito	Trinity College Dublin	263,960
Vinny Cahill	ERC Support	SRI ERC Support - Valeria Nicolosi	Trinity College Dublin	220,000
Vinny Cahill	ERC Support	SFI ERC Support - Pete Humphries	Trinity College Dublin	300,000
Bernard Mahon	ERC Support	SFI ERC Support - Rob Kitchin	National University of Ireland, Maynooth	300,000
Mary Shire	ERC Support	SFI ERC Support - David Hoey	University of Limerick	291,007
Vinny Cahill	ERC Support	SFI ERC Support - John Boland	Trinity College Dublin	300,000
Fiona McGillicuddy	HRB/Wellcome Trust	Functional consequences of obesity-induced adipose tissue inflammation on HDL acceptor capacity and reverse cholesterol transport (RCT)	Health Research Board	193,773
Elaine Dunleavy	HRB/Wellcome Trust	Assembly and function of Drosophila melanogaster centromeric chromatin during meiosis and development	Health Research Board	322,400
Marian Tsanov	HRB/Wellcome Trust	Inter-regional synaptic integration of sensorimotor signals within episodic memory networks	Health Research Board	203,556
Manfred Hauswirth	Industry Fellowship	Large-scale integration and provisioning of Internet of Things and utility streams in real smart city environments	National University of Ireland, Galway	156,000

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Therese Mahony	Industry Fellowship	Formulations and delivery systems for prevention and treatment of bovine Johne's Disease	National University of Ireland, Galway	119,571
Daniel O'Toole	Industry Fellowship	Development of a Regulatory Compliant Cell Product for Acute Respiratory Distress Syndrome	National University of Ireland, Galway	118,921
Conor Cahalane	Industry Fellowship	Development of automated coastal bathymetric methodology using applied Remote Sensing techniques	National University of Ireland, Maynooth	67,454
Mohammad Karzand	Industry Fellowship	Rateless Coding in the Cloud	National University of Ireland, Maynooth	76,132
Paul Lewis	Industry Fellowship	Novel LIDAR Web services for mapping & monitoring Road Network Infrastructure	National University of Ireland, Maynooth	85,974
Gavin McArdle	Industry Fellowship	Simulating Human Mobility in Dublin	National University of Ireland, Maynooth	78,686
Timothy McCarthy	Industry Fellowship	Delivering innovative geospatial information services for forestry applications based on unmanned aerial vehicle (UAV) sensor data fusion	National University of Ireland, Maynooth	126,675
Annette Byrne	Industry Fellowship	Collaborative Predictive Biomarker/Companion Diagnostic Programme in Oncology: Integration of Bayer Healthcare Pharmaceuticals/ Royal College of Surgeons in Ireland Translational Research Agenda through application of a Global Medical Affairs Strategy	Royal College of Surgeons in Ireland	85,224
Caroline Jefferies	Industry Fellowship	Biomarker analysis in SLE	Royal College of Surgeons in Ireland	63,697
Mike Lyons	Industry Fellowship	Specialization program on enabling high-tech innovations for resource and energy-efficiency during production, recycling and substitution of raw materials	Trinity College Dublin	59,800
Stephen O'Brien	Industry Fellowship	Design optimisation of Wavelength Division Multiplexing Devices Based on Multi-Channel Grating Filters	Tyndall National Institute	108,908
Yassine Lassoued	Industry Fellowship	Risk Information Visualisation	University College Cork	117,778
Mark Tangney	Industry Fellowship	Commercialisation of Bacterial Imaging Technology	University College Cork	31,842
Dennis Dowling	Industry Fellowship	Technical and Commercial Development of Rapid Discharge Sintering Technology	University College Dublin	23,135
Maria Luisa Guerriero	Industry Fellowship	Integrating genomic variation data into dynamic modelling to investigate cell-type specific pharmacological sensitivity in signalling pathways involving the PTEN tumour suppressor	University College Dublin	105,689
Andrew Keane	Industry Fellowship	Development of Irish Smart Grid Test Bed: Demonstration Projects	University College Dublin	99,376
Diarmuid O'Connell	Industry Fellowship	Efficient energy conversion electronic systems for small-scale vibration energy harvesters	University College Dublin	72,059
Anthony Ventresque	Industry Fellowship	MOB-SIM@ A mobility simulation platform for enabling smarter intermodal transportation	University College Dublin	110,686
Ronan Grimes	Industry Fellowship	Thermo-fluidic characterisation and modelling of a dry cooled condenser in a concentrated solar power plant	University of Limerick	50,414
Vinny Cahill	International Strategic Cooperation Award	Ireland-India ISCA Programme	Trinity College Dublin	715,000

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Alan Harvey	International Strategic Cooperation Award	Ireland-Brazil ISCA Programme	Dublin City University	650,000
Lokesh Joshi	International Strategic Cooperation Award	Ireland-Japan ISCA Programme	National University of Ireland, Galway	1,237,849
Bernard Mahon	International Strategic Cooperation Award	Ireland-China ISCA Programme	National University of Ireland Maynooth	650,000
Des Fitzgerald	International Strategic Cooperation Award	Ireland-China ISCA Programme	University College Dublin	648,800
Vinny Cahill	International Strategic Cooperation Award	Ireland-India ISCA Programme	Trinity College Dublin	650,000
Eoin Gill	SFI Discover Programme Strategic Projects Call 2013	Maths week Ireland 2014 and 2015	Waterford Institute of Technology	100,000
Joanna Quinn	SFI Discover Programme Strategic Projects Call 2013	The Festival of Curiosity 2014 and 2015	Royal Dublin Society RDS	220,000
Michael J Gorman	SFI Discover Programme Strategic Projects Call 2013	New Strategic Partnership - Science Gallery and SFI Discover	Trinity College Dublin	260,000
Caroline Jefferies	SFI Internship	SFI Internship	Royal College of Surgeons in Ireland	69,766
Brendan Kennedy	SFI Internship	SFI Internship	University College Dublin	67,995
David McHugh & Stephen Gordon	SFI Internship	SFI Internship	University College Dublin	62,835
Paul Moynagh	SFI Internship	SFI Internship	National University of Ireland, Maynooth	64,165
Brendan Loftus	SFI Internship	SFI Internship	University College Dublin	43,953
Des Fitzgerald	SFI Internship	SFI Internship	University College Dublin	74,182
Ray Stallings	SFI Internship	SFI Internship	Royal College of Surgeons in Ireland	70,503
Bernard Mahon	SFI Internship	SFI Internship	National University of Ireland, Maynooth	74,182
Des Fitzgerald	SFI Internship	SFI Internship	University College Dublin	181,010
Vinny Cahill	SFI Internship	SFI Internship	Trinity College Dublin	132,103
Alan Harvey	SFI Internship	SFI Internship	Dublin City University	132,103
Sub-Total				297,108,988
Industry Fellowship award accepted and subsequently declined				85,123
TOTAL				297,194,111

Glossary

AAAs	American Association for the Advancement of Science	INSIGHT	Centre for data analytics
AMBER	Advanced Materials and Bioengineering Research	I-PIC	Irish Photonic Integration Research Centre
APC	Alimentary Pharmabiotic Centre	JSPS	Japan Society for the Promotion of Science
CSET	SFI Centres for Science, Engineering and Technology	JST	Japan Science and Technology Agency
CSTP	Council for Science and Technology Policy	MACSI	Mathematics Applications Consortium for Science and Industry
DAFX	International Conference on Digital Audio Effects	MaREI	Marine renewable energy Ireland
DCENR	Department of Communications, Energy and Natural Resources	NCPs	National Contact Points
DJEI	Department of Jobs, Enterprise and Innovation	NIBRT	The National Institute for Bioprocessing Research and Training
DPSM	Discover Primary Science and Maths	NIH	National Institute of Health, USA
DRI	Digital Repository of Ireland	NODES	Networks of Diasporas in Engineering and Science
EDA	European Data Forum	NRPE	National Research Prioritisation exercise
EI	Enterprise Ireland	NSF	National Science Foundation
EPA	Environmental Protection Agency	SESE	Social, Environmental and Scientific Education
ESA	European Space Agency	SME	Small-Medium Enterprise
ESERO	European Space Agency/European Space Education Resource Office	SRC	SFI Strategic Research Cluster
ERC	European Research council	SSPC	Synthesis and Solid State Pharmaceutical Centre
ESGI	European Study Group with Industry	STAS	Science and Technology Advisor to the Secretary
EU	European Union	STEM	Science, Technology, Engineering and Maths
GROW	Graduate research opportunities worldwide	uPAD	microfluidic analytical device
GWIPS	Genome Wide Information on Protein synthesis		
HEA	Higher Education Authority		
HEI	Higher Education Institutions		
HRB	Health Research Board		
ICSE	International conference on software engineering		
IISCA	International Strategic Cooperation Awards		
INFANT	Irish Centre for Fetal and Neonatal translation research		

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