Science Foundation Ireland

For what's next

Annual Report and Accounts 2014

Front cover image
Winner of the SFI Image of the Year Competition 2014.

This image entitled 'Starship Enterprise,' taken by Dr Anthony Maher, won SFI's Research Image of the Year competition at the SFI Science Summit in Athlone. Dr Anthony Maher is a Pharmaceutical Executive and former researcher at the Synthesis and Solid State Pharmaceutical Centre (SSPC) in University of Limerick. Dr Maher is a member of Kerry's Senior Football All Ireland winning team 2014.

Description

Most of the medicines that we take are made up of compacted powders - the individual particles are in fact tiny crystals of the active compound. Some compounds are known to have a number of different crystal forms, known as polymorphs. The different polymorphs of a compound have different physical and chemical properties, inferring a relative stability hierarchy. One aspect of the research at the Synthesis and Solid State Pharmaceutical Centre (SSPC) focuses on understanding polymorphic compounds and the mechanisms that control their properties, such as crystal structure, purity, shape and size, and exploiting these mechanisms in order to increase the range of medicines available to the public. This optical micrograph image shows a form II piracetam crystal (rough, dissolving) undergoing a polymorphic transformation to a more stable form III crystal (smooth, defined faces) in methanol at 25°C.

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Ireland

1st in Nanosciences

2nd in Immunology

Ireland is 16th in global scientific ranking.*

5th in Materials Sciences

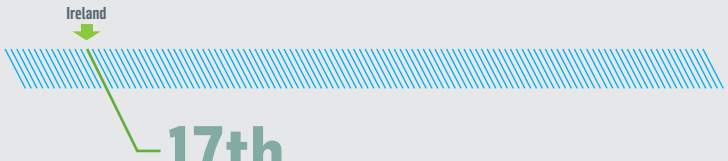
3rd in Animal and Dairy

2nd in Computer Sciences

sfi Science Foundation Ireland

* Based on international scientific citation per paper

Source: Essential Science Indicators℠ from Thomson Reuters



17th (of 94 countries) in the European research rankings for 2014, based on funding generated out of European funding programmes.

ResearchRanking.org (based on data published by the European Commission)

11th (of 143 countries) in the Global Innovation Index 2014

Insead

9th (of 28 countries) on Innovation Union Scoreboard (2014)

Innovation Union Scoreboard

SFI awards directly supported over **1,200** collaborations with industry

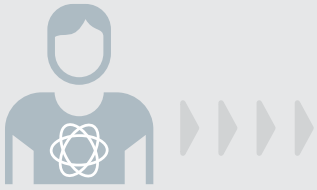
650 MNC

561 SMEs

2,851 people were working on SFI supported research projects.

SFI supports over **1,000** Post graduate students

448 individuals advanced in careers from SFI research teams



- 65% remained in Ireland.
- 20% moved to positions in industry.

SCIENCE WEEK

Science Week reached over **250,000** people through over **800** events

SFI awards directly supported **1,843** international academic collaborations in **57** countries

+200 INDUSTRY PARTNERS

12 SFI Research Centres

€355 million from SFI

€190 million Industry Commitment

SFI awards directly supported

2,029 Scientific Publications

45% are co-authored with internationally based researchers; 8% have a co-author from industry.

343 new awards were approved in 2014

across **23** programmes

with a value of **€274 million.**

SFI researchers were involved in organising **764** national and international conferences 528 were in Ireland

Vision

Ireland will be a global leader in scientific and engineering research, discovery and innovation.

Mission

Science Foundation Ireland will progress Ireland's society and economy by supporting the best scientific and engineering research while building an awareness of the role, impact and opportunities science creates.

Core Values

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 on-going 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

I am pleased to report that 2014 has been a significant year in which we have continued with our mission of placing science at the heart of Ireland's economy and society. We are on-target to meet our goals, as set out in our strategic plan: Agenda 2020.

Overview

As we present the Science Foundation Ireland (SFI) annual report and financial returns for 2014, I would like to take the opportunity to reflect on what has been an important year for the organisation. 2014 has been a year in which SFI has continued to make progress on our targets and work, along with Government, with our academic and industry partners to help ensure that an effective research eco-system exists in Ireland.

An effective eco-system will ensure that we have an environment conducive to attracting, retaining, expanding and initiating the type of industry that will lead to the creation of more high value jobs which at the same time positively impacts our society, both in Ireland and worldwide.

In the past twelve months, SFI has continued to deliver on important Agenda 2020 targets. In the context of operating a modern public service organisation, staffed in a lean and flexible manner, with efficient and effective management, we are building partnerships that fund excellent science and clearly demonstrate value for money invested.

The highlights for the Board during 2014 included:

Understanding the Business

In order to gain a deeper appreciation of the research being carried out by the people and projects that SFI invests in, the Board was pleased to spend time at a number of SFI research centres.

We visited the Alimentary Pharmabiotic Centre (APC) at University College Cork, which ranks second in the world for probiotics research, with six present and former APC researchers ranking in the top 20 authors of more than 15,000 authors globally. It was an honour to meet the talented clinicians, clinician-scientists, postgraduate students and some of its industry partners working in this important area of scientific discovery.

The Board was also privileged to spend time with key personnel at Insight, the SFI funded research Centre for Data Analytics. Insight positions Ireland at the heart of global data analytics research. Insight is a joint initiative between DCU, NUI Galway, UCC, UCD and other partner institutions, bringing together more than 200 researchers from these and other Higher Education Institutions, with 30 industry partners. Industry partners include RTÉ, The Irish Times, Cisco, Microsoft, Alcatel-Lucent, Santry Sports Clinic, IRFU, Avaya, TE Labs, TreeMetrics, NitroSell, Avego, UTRC, Shimmer and many more.

A further highlight during 2014 was the meeting of the Board with Bill Liao, co-founder of CoderDojo, who presented his insights on the teaching of computer programming and STEM subjects in schools. The Board also met Prof Carel Le Roux who outlined his experience of the SFI President of Ireland Young Researcher Award programme. Later in the year Dr Thomas Christensen, head of operations of the Novo Nordisk Foundation made a Board presentation on the research funding landscape in Denmark which, along with Ireland, is one of the six small advanced nations in scientific research.

During the year the Board also gained increased exposure to senior management enabling its members to gain a deeper understanding of the organisation which was helpful in terms of wider strategy discussions.

Strategic Discussions

The Board held in-depth discussions with management on strategy and the investment portfolio which totals over 700 active awards. There was particular attention paid to investments in individually-led grants, versus large centre-type activities. It is of interest that the current funding split between the large centres and partnerships as compared to the individual investigator-led awards is 45% Vs 55%.

> Significant funding approved for five new centres of research focused on digital content, communications infrastructure, medical devices, geosciences and software led by Trinity College, the National University of Ireland Galway, University College Dublin and the University of Limerick

The Board also reviewed engagement between SFI-funded researchers, Multinational Corporations (MNCs) and Small and Medium Enterprises (SMEs). SFI-funded researchers currently engage in 1,200 collaborations with industry (650 MNCs and 561 SMEs).

On perhaps a more topical note, the Board also held in-depth discussions on investment in earlier stage versus more applied research. It is of note that SFI invests very broadly across the continuum of basic to applied research. SFI uses the EU Commission Technology Readiness Levels (TRL) specified in the Horizon 2020 to define its funding. The spread of SFI funding is over levels one to six with greater than 60% in TRL one and two. There are in fact nine levels in this matrix with level nine denoting technology that is ready for commercial development.

Key Funding Decisions

In September, when satisfied that a robust process had been followed, the Board approved the funding of €155 million to five new Research Centres (see page 11) and commended the staff involved on the quality and detail of the documentation provided to assist the Board in coming to its decision.

A list of grant approvals by the Executive Committee was presented to the Board at each of its meetings.

SFI approved 343 new awards during 2014. In line with its approved delegated authority, the Grant Approval Committee approved 21 of these awards (15 Investigator Awards, 4 Spokes awards, 1 Research Professorship and 1 Partnership Programme) totalling €35.6 million.

Values

This year the Board decided to focus on and revisit the core values underpinning our culture. The Board and each member of staff engaged in a process to explore their own values and their alignment to SFI's vision and mission. The following are the agreed values collaboratively authored by SFI's employees:

Excellence:
Delivering what we promise and exceeding expectations.

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

Progressive:
We are an innovative, dynamic and visionary funding agency.

Integrity:
We do the right thing.

Collaborative:
Working together for science in society; working together for each other.

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

These SFI values have been embedded within the organisation and drive our behaviour. Adherence to these values will allow us to achieve excellence in all that we do, the right way, and maintain a vibrant, diverse and inclusive culture that enables our people to do their best work and achieve their full potential.

Corporate Governance and Risk Management

During 2014, the Board established a Corporate Governance Committee with a remit to gain accreditation from the National Standards Authority of Ireland (NSAI) in relation to our corporate governance standards.

> Review demonstrates best practice in corporate governance; experience, effectiveness, diversity and succession noted or addressed with positive outcome

An independent evaluation of SFI's compliance with existing corporate governance codes including the OECD principles, the Combined Code on Corporate Governance and the Code of Practice for the Governance of State Bodies was carried out early in 2015. I am pleased to report that we have been awarded SWiFT 3000 certification by NSAI, receiving an assessment rating of 3.8575 from a maximum rating of 4.0, demonstrating that the Board operates to best practice corporate governance principles.

The Board, through the Audit and Risk Committee, also commissioned an independent review of our risk register and appetite, including a review of risk management processes, which continue to be strengthened on an on-going basis.

Board Composition and Succession

The Board established a Management Development/Board Nominations Advisory Committee early in the year to work on succession planning and development for both the Board and management, in line with the Code of Practice for the Governance of State Bodies and State Board Appointment process, and thorough processes are in place.

Ms Ann Riordan, Chairman SFI, Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Government of Ireland and Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation.

Our members bring complementary and relevant skills to the Board. In addition to wide international experience, these skills include expertise in finance and accounting, award winning research, ICT/microelectronics, medical devices, pharmaceuticals, biotechnology, entrepreneurship, venture financing, outreach/communication, international research funding, small and medium enterprises, as well as government, corporate governance and leadership experience. Over 40% of our members are women who bring rich diversity to the Board.

I am delighted that Sir Tom Blundell, Director of Research and Prof Emeritus in Biochemistry, University of Cambridge and Mr Barry O'Sullivan, CEO of Altocloud, have joined the Board in November 2014. Both bring a wealth of experience and expertise and have already added considerably to the Board discussions.

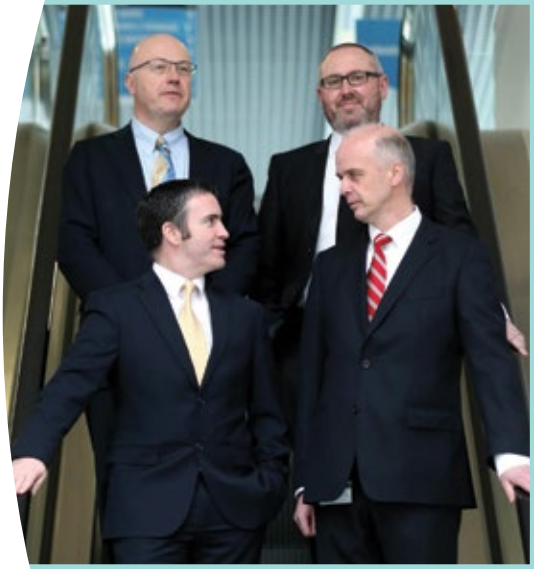
On behalf of the Board, I would also like to pay tribute to Mr Peter MacDonagh and Mr Sean Aherne, who presented themselves for retirement in July and thank them for their valuable contribution and service to SFI during their long tenure on the Board. I would also like to thank Mr Donal Keane, the outgoing Secretary to the Board and Ms Lisa Murphy, Secretariat Manager, for their support to me as incoming Chairman and their excellent service and I would like to welcome the new Secretary to the Board, Ms Kim Lavelle.

Board Effectiveness

In order to encourage continuous evaluation of the Board's effectiveness, the Board engaged in various self-evaluation activities and an evaluation dimension was incorporated into each meeting. Feedback from this process was acted upon and an external evaluation of Board effectiveness was carried out as part of the NSAI SWiFT 3000 corporate governance certification process. A robust induction programme is in place for new Board members and a number of Board members attended training sessions delivered by the Institute of Directors.

CASE STUDY #1

SFI and Pfizer - Building Strategic Partnerships that Fund Excellent Science, Creating Value to Society and Industry



SFI announced a unique partnership with Pfizer aimed at promoting biotherapeutic breakthroughs in Ireland, through academic-industry collaboration.

This innovative SFI-Pfizer Biotherapeutics Innovation Award Programme supports highly competitive, collaborative research projects between Pfizer and Irish academics that could help to deliver and promote important potential breakthroughs in the areas of immunology and rare diseases. It also creates a platform for building future collaborations between academia and industry in the area of biomedical research.

Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Government of Ireland, Dr William Finlay, Director of Global Biotherapeutics Technologies, Pfizer, Mr Damien English TD, Minister for Skills, Research and Innovation and Prof James O'Donnell, Trinity College Dublin.

Acknowledgements

On behalf of the Board I would like to thank Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation; Mr Sean Sherlock TD, the former Minister for Research and Innovation; Mr Damien English TD, Minister for Skills, Research and Innovation; and the officials at the Department of Jobs, Enterprise and Innovation for their support and encouragement throughout 2014. Our gratitude is also due to those organisations that work closely with us, including the universities and other higher education institutes, the Higher Education Authority and our sister agencies, Enterprise Ireland and IDA Ireland and to the other research funding agencies Health Research Board (HRB), Irish Research Council (IRC) and Teagasc.

I would like to pay tribute to the Director General and the staff of SFI for their commitment to achieving excellence in all that they undertake and their focus on achieving our strategic objectives as set out in Agenda 2020.

And finally, I would like to thank the Board for their support of me during 2014 and acknowledge their great time commitment to SFI through their attendance at meetings and contributions to committee(s)/board.

Annual Report

The Boards' objective is to meet high standards of disclosure and we consider this Annual Report and Financial Statements to provide a fair, balanced and understandable account of SFI's year in 2014, with the information required to assess our performance, investment portfolio and strategy.

As we look forward to 2015, we will continue to focus on achieving our strategic goals and attune our strategy, if necessary, in line with the Government's new Strategy for Science, Technology and Innovation, which is expected to be published during the course of the coming year.

Ann Riordan
Chairman
Science Foundation Ireland

Director General's Statement

Vision: Ireland will be a global leader in scientific and engineering research, discovery and innovation, driving a strong sustainable economy and a better society.

Before I discuss SFI and the work we are doing, I'd like to take a moment to paint the bigger picture for Ireland.

We live in a country, society and a world that is rapidly changing. Technology, innovation and science are key drivers of this change.

In our recent history, Ireland has done exceptionally well in terms of foreseeing and responding to this change. For a small nation we have competed and succeeded – 'punching above our weight' is our norm. We have attracted leading international companies, investment from overseas, and built a society and economy made up of smart and informed people who trade in ideas and innovation. But it is only getting more competitive and we need to push on even further. We need to be competitive, be the creators and owners of new ideas and innovations. We need to continue to upskill our people, strengthen and future proof our economy and society. We need to lead and innovate. Innovation starts with discovery and science, it is led by talented and passionate people who have ideas. SFI is here to enable, support and empower these very people.

SFI is the state agency that funds excellent scientific research and its application: discovery to delivery. We are at the frontier of many fields catalysing "What's next". We invest in and support the best researchers with great ideas which lead to excellent projects that have the potential to make a real difference to Ireland and its people, positively impacting our economy and society. We foster collaboration with industry and charity, nationally and internationally. We promote STEM (Science, Technology, Engineering and Maths) to everyone; inspiring and supporting young people towards exciting futures in STEM – good for them and good for Ireland.

SFI delivers outstanding value for money. By focusing our efforts and resources on the best people and ideas, we bring about exceptional returns on the investment we make on behalf of Irish citizens – supporting Ireland's future through technological advances, people's quality of life and creating high value jobs both now and in the future.

SFI helps Ireland compete and stand out internationally, building our reputation as a world leader in science, technology and engineering, attracting leading scientists to work in Ireland where their talented minds in turn help fuel Ireland's progress. Ireland is ranked 16 in the world for the quality of our scientific research and is ranked first in the world for its research in Nanoscience, second in Computer Science and Immunology, third in Animal and Dairy and fifth for Materials Science. Independent analysis by Eurostats, in the EU Commission, shows Ireland to be the most R&D efficient country in the EU, extracting maximum innovation output from a below average (as a % of GDP) public investment in research. This bodes well for the future: as our economy recovers, an increase in public investment in R&D, though SFI, should have a disproportionately large positive effect on the economy and society.

2014 was a significant year for SFI and the research community in Ireland it supports. We welcome the Government's continued commitment to invest in excellent and impactful scientific research and its understanding that this investment is crucial for both the economic and societal development of Ireland. SFI both contributes to, and implements, Government policy.

Research supported by SFI is changing people's lives and helping to create the industries of the future. For example, INFANT, one of SFI's world class Research Centres, based in Cork University Maternity Hospital and University College Cork, is working on a range of solutions with industry to improve healthcare for expectant mothers and young babies and indeed, the first predictive diagnosis for pre-eclampsia in early pregnancy was developed by the Centre.

CASE STUDY #2

World Renowned Engineering Researcher and Successful Innovator Joins University College Dublin

Prof Robert Bogdan Staszewski

University College Dublin (UCD) appointed Prof Robert Bogdan Staszewski, a world renowned engineering researcher, to lead a cutting-edge research programme which could increase Ireland's capability as a global centre for the 'Internet-of-Things'.

Prof Staszewski was awarded €5 million in funding under SFI's Research Professorship Programme. Many projections foresee that 30-50 billion devices will be wirelessly connected to the internet by the end of this decade, as smart cities, connected health and smart agriculture develop.

Prof Staszewski's research programme could lead to key technical breakthroughs to enable low cost, low power electronics fundamental to the 'Internet of Things'. This would have significant impact on Ireland's world-class microelectronics and software industries, which is part of a multi-trillion dollar global market.

Prof Staszewski is an engineer researcher who has worked for big US companies and more recently was based at Delft University of Technology, Netherlands.

The linkages and collaborations between researchers in Irish HEIs and industry are growing in number, depth and quality; so helping to attract, anchor and create companies and high value jobs in Ireland.

During 2014, SFI funded researchers have leveraged considerable non-Exchequer funding, including funding available through EU programmes like Horizon 2020 and from industry partnerships. SFI has also established partnerships with the Department for Education and Learning in Northern Ireland and the Royal Society in the UK and with companies such as Pfizer.

The most significant funding decision during 2014 supported the expansion of the number of SFI Research Centres from seven to twelve. These five new world class SFI Research Centres of scale are collaborative with industry and were established following a highly competitive process whereby proposals and the research teams were rigorously evaluated by international experts who recommended only those of outstanding scientific excellence and potential impact for funding.

This new Exchequer funding of €155 million delivered through SFI is combined with €90 million in cash and in-kind contributions from 134 industry partners (69 MNCs and 65 SMEs). The funding will support cutting-edge research in critical and emerging sectors of the economy which are key for job creation in Ireland both now and in the future. The funding will be provided over the next six years, 2014-2020. By working closely, from the outset, with outstanding industrial colleagues, the research SFI supports is not only excellent but relevant and impactful and can be rapidly propelled along the discovery to delivery pathway – representing the best in engaged scholarship.

The five new Centres are:

- **ADAPT - Centre for Digital Content**
- **CONNECT - Centre for Future Networks & Communications**
- **CÚRAM - Centre for Research in Medical Devices**
- **iCRAG - Irish Centre for Research in Applied Geosciences**
- **LERO - The Irish Software Research Centre**

These SFI Research Centres combine excellent, cutting edge, scientific research with deep and significant enterprise engagement - excellence and impact. We are confident that they will make a significant contribution to Ireland's economy, employment and reputation, as well as finding solutions to numerous societal challenges.

> We invest in and support the best researchers with great ideas which lead to excellent projects that have the potential to make a real difference to Ireland and its people, positively impacting on our economy and society.

The SFI Research Centres programme is already working extremely well: with the first seven SFI Centres funded last year developing new industry and academic partnerships through the Spokes programme, attracting and training young researchers, making important fundamental discoveries, spinning out companies, transferring technologies to existing companies and enhancing Ireland's international reputation. The Spokes programme will enable the twelve Centres to grow and adapt, allowing new industry and academic partners to join and capabilities to develop in and between the Centres.

SFI plays a key role in training and providing future skilled personnel to industry. Ireland now has the highest proportion of science and engineering graduates in the OECD and the number of PhD graduates working in industry has doubled between 2000 and 2010.

In 2014, SFI continued to support excellent early career researchers with the allocation of €23 million to 41 researchers through the SFI Starting Investigator Research Grant (SIRG) and Career Development Awards (CDA).

SIRG supports excellent postdoctoral researchers and others who have yet to hold an independent research post, in taking the first steps towards an independent research career. CDA supports excellent investigators still in the early stages of their research career, who are already in an independent (either permanent or fixed-term) academic position (transition to leadership).

In 2014, SFI signed a partnership with the Royal Society, the oldest and most prestigious scientific society in the world, which extends the prestigious Royal Society University Research Fellowship (URF) scheme to Ireland. Applicants to this programme, hoping to research in an Irish HEI, will compete and be assessed on the same criteria as those in the UK by the Royal Society, and the scientific applicants will hold these awards from the Royal Society, who will be reimbursed for the costs by SFI. This scheme broadens the opportunities for the Irish Research Community. It demonstrates internationally the quality of Irish researchers and fosters collaboration between future research leaders in the UK and Ireland.

Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation, and Mr Damien English TD, Minister for Skills, Research and Innovation announced Government and industry funding of €245 million for the establishment of five new world-class SFI Research Centres in Ireland. The new centres - ADAPT, CONNECT, CÚRAM, iCRAG and LERO – will focus on applied geosciences, software, smart networks, ICT, biotechnology and medical devices.

CASE STUDY #3

The Irish Rugby Team have Exceptional Guts

Scientists at the Alimentary Pharmabiotic Centre (APC) carried out a study in conjunction with the Irish Rugby Football Union which revealed that exercise and associated dietary changes influence gut microbial diversity.

Eanna Falvey, UCC, Sports Surgery Clinic (Dublin), Declan Kidney, IRFU; Dr Paul Cotter, Teagasc and Alimentary Pharmabiotic Centre; Dr Eileen Murphy, Alimentary Health; Prof Fergus Shanahan, Alimentary Pharmabiotic Centre, Atlantia Food Clinical Trials, UCC and Dr Michael Molloy, UCC.

The importance of our gut microbes to health and defence against disease is becoming ever more apparent. In particular, high microbial diversity has been associated with increased health whereas a low diversity of gut microbes has been associated with several diseases and syndromes, including obesity.

This study highlighted that the gut microbiota of our National Rugby team had a very high diversity relative to the Irish general public (as revealed by High Throughput Sequencing).

This high diversity is particularly linked with exercise and protein consumption and suggests that eating specific proteins and/or exercise can provide a means of increasing microbial diversity in the gut.

This is the first report which indicates that exercise increases microbial diversity in humans. It has been previously shown that diet influences microbial diversity, but it is now reported that protein consumption, in particular, positively correlates with microbial diversity.

Similar to our partnership with the Royal Society, SFI's partnerships with the Wellcome Trust, the National Science Foundation USA and the National Institutes of Health USA allow Irish researchers to compete at the same standard being evaluated by the same criteria as researchers in those countries, openly demonstrating the international quality of Ireland's researchers. These international partnerships support the creation of valuable international collaborations and leverage non Irish Exchequer funding.

Throughout 2014, SFI continued to fund scientific and engineering research in the areas of greatest strategic value to Ireland's long-term competitiveness and development. For example, the SFI Investigators' Programme supports excellent and impactful research projects proposed by individual investigators. In 2014, SFI funded 42 proposals, supporting 200 research positions, involving collaborations with 62 companies, at a total cost of €51 million. Awards include research in areas such as sustainable food production, biopharmaceutical production, cancer detection and investigating the control of epilepsy development.

Last year, SFI expanded its support for outstanding excellent young Irish researchers with a focus on enhancing Ireland's success at the European Research Council (ERC).

The impact of this support was evident in the announcement of awards of approximately €11 million to eight Irish researchers through ERC Starter Grants, the largest number of ERC grants to be awarded to Irish-based researchers to date. This is a hallmark of excellence: Ireland's success rate was second only to Israel.

SFI actively promoted the SFI Industry Fellowship programme. This 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. Seven new fellowships were approved over the past year. SFI would like to expand this important programme; most of the researchers that SFI funds will subsequently work in the private sector and this Industry Fellowship scheme allows researchers to experience industrial research and allows companies to sample the quality of Irish research and researchers and hopefully progress to deeper research partnerships.

In recognition of the need for Ireland to build capacity in key research areas of economic importance, SFI has worked with industry and the seven Irish Universities to identify areas, aligned with national and institutional strategic priorities, where the recruitment of eminent research professors should be targeted.

SFI directly supports 650 collaborations with 309 multinational companies and 561 collaborations with 442 small to medium sized enterprises.

Working collaboratively with the seven Irish Universities, SFI launched a Targeted Research Professorship scheme to attract world-leading researchers to Ireland in strategically important areas including manufacturing, medical devices, ageing, agri-food and energy.

Research Professors with world class research profiles will be recruited to foster, catalyse and build (through mentoring young Irish researchers), internationally excellent research programmes in key areas of strategic importance for Ireland, often in collaboration with industry. Prof Robert Bogdan Staszewski was recruited to University College Dublin as part of this programme to lead cutting-edge research in microelectronics particularly as it relates to the 'Internet-of-Things'; collaboratively with researchers in SFI's Connect Research Centre and with relevant companies with a significant presence in Ireland such as Analog Devices and Xilinx.

SFI supported researchers are now working in 2,346 industry collaborations, of which over 1,200 are directly supported by SFI. SFI directly supports 650 collaborations with 309 multinational companies and 561 collaborations with 442 small to medium sized enterprises. Ensuring the global research community and international industry have a positive view of Ireland's research capability is an important component of Ireland's ability to attract FDI. SFI research teams are contributing to Ireland's international reputation through their global connection with 1,843 international academic collaborations in 57 countries.

SFI is also mandated to engage the public in scientific research and has as part of its strategy a goal to ensure Ireland has 'the most engaged and scientifically informed public'. This activity, which is run through the SFI Discover Programme, is ultimately aimed at ensuring the public understands the role of science in society and sees the value it contributes to the economy and to our everyday lives, whilst also encouraging young people to pursue STEM subjects.

2014 saw a number of notable public engagement achievements. Science Week 2014 was organised by SFI Discover in November and saw more than 250,000 people attending over 800 events all over Ireland. In 2014, SFI Discover provided funding to a number of programmes that support and develop the STEM education and outreach sector in Ireland. 73 new projects were approved with a direct audience reach of over 3.2 million.

The Smart Futures initiative, a new three year plan to deliver and increase the uptake of Science, Technology, Engineering and Maths (STEM) subjects, was launched in 2014. This ambitious new strategy aims to deliver a 10% increase in the uptake of STEM subjects by students at second and third level by 2016. The programme has trained a total of 929 volunteers to date, visiting 427 schools in the 2013/14 academic year, reaching over 13,000 students.

The Royal Society and SFI signed an historic new collaboration agreement. Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Government of Ireland, Mr Dominick Chilcott, British Ambassador to Ireland and Prof Sir John Pethica, Vice President of the Royal Society and Professor of Physics at Trinity College.

CASE STUDY #4

Technology to Double Battery Performance for Mobile Phone, Laptop and Electric Car Industries

Dr Kevin Ryan, Materials and Surface Science Institute (MSSI), University of Limerick

Researchers at the Materials and Surface Science Institute (MSSI), University of Limerick made a significant breakthrough in the area of rechargeable battery technology.

The combined value of the market for rechargeable battery technology is set to grow from $11.8 billion in 2010 to $53.7 billion in 2020. The research team at UL have developed a technology that more than doubles the capacity of lithium-ion battery anodes enabling it to retain this high capacity even after being charged and discharged over 1,000 times.

Lead researcher, Dr Kevin Ryan explained; "We have developed a new germanium nanowire-based anode that has the ability to greatly increase the capacity and lifetimes of lithium-ion batteries. This breakthrough is important for mobile computing and telecoms but also for the emerging electric vehicle market allowing for smaller and lighter batteries that can hold more charge for longer and maintain this performance over the lifetime of the product."

The research team have also ensured that their nanotechnology solution is scalable, low-cost and low-energy, making the technology both greener and commercially viable.

The research was supported by an SFI award under the Principal Investigator Programme to Dr Kevin Ryan and also by EU funding through the GREENLION Project. The GREENLION project is a large scale collaborative project within the FP7 framework with the goal of manufacturing greener and cheaper lithium-ion batteries for electric vehicle applications.

SFI also commissioned research to examine the factors which influence young people's CAO decisions.

SFI has established a balanced portfolio of research funding with schemes supporting the spectrum of research from basic to applied in the fields within our legal remit; large centres of strategic importance and individual investigator proposals; support for the entire career development of researchers from junior to established star; national and international collaborations and public engagement which inspires children and supports their future potential.

What's Next?

As we continue to implement our ambitious strategic plan: Agenda 2020, leveraging public funding to attract private investment remains a key priority for next year.

SFI will continue to develop and support the twelve SFI Research Centres.

A key focus will also be on enhanced industry engagement through the SFI Spokes, Industry Partnership and Industry Fellowship programmes.

SFI will continue to assist Irish researchers to compete and win external funding through programmes such as Horizon 2020.

Attracting top international research talent to Ireland will remain a priority, as will the support of early career researchers.

From a public engagement perspective, 2015 is a milestone year for the SFI Discover programme as we will celebrate the 20th National Science Week and we plan to make it the best event to date.

We look forward to working with our partners, across Government, academia and industry, to implement these plans and build on our achievements to date.

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

The Year in Review - 2014

January

- Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation and Northern Irelands Minister, Dr Stephen Farry MLA, sign collaboration which will allow Queen's University and the University of Ulster to participate as full academic partners in SFI's well-established and highly prestigious, Investigators Programme
- SFI participated in the BT Young Scientist Exhibition and competition
- Offical launch of the €30 million Irish Photonic Integration Centre (IPIC)

Dr Stephen Farry MLA, Employment and Learning Minister for Northern Ireland, Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation, Ms Nuala Kerr, Department of Employment and Learning and Prof Mark Ferguson, Director General SFI and Chief Scientific Adviser to the Government of Ireland.

February

- Pfizer and SFI announced public-private partnership
- Ireland's first human use stem cell manufacturing facility opened at NUI Galway
- Prof Eoin O'Reilly, Tyndall National Institute, wins the prestigious 2014 Rank Prize for Optoelectronics

Dr William Finlay, Director of Global Biotherapeutics Technologies, Pfizer, Dr Paul Duffy, Vice President, Pfizer, Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government of Ireland, and Mr Sean Sherlock TD, the former Minister for Research and Innovation.

March

- President Higgins received recipients of the President of Ireland Young Researcher Award (PIYRA) at Áras an Uachtaráin
- The Taoiseach, Enda Kenny TD presented Dr Garret A. FitzGerald with the inaugural SFI St. Patrick's Day Science Medal
- INFANT and Waters Corporation signed research partnership which may save the lives of pregnant mums and newborn babies

Prof Carel le Roux, University College Dublin, Prof Valeria Nicolosi, Trinity College Dublin, President of Ireland, Michael D. Higgins, Dr Matthew Campbell, Trinity College Dublin and Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government of Ireland.

April

- President Higgins visited the Royal Society London to celebrate scientific links between Ireland and the United Kingdom as part of the state visit
- New SFI Investigator awards announced
- SFI and The Irish Cancer Society announced partnership that aims to support the establishment of a new Collaborative Cancer Research Centre (CCRC)

Dr Joseph Roche, Trinity College Dublin, President of Ireland, Michael D. Higgins, Dr Michael John Gorman, CEO of Science Gallery International and Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Irish Government.

May

- Researchers at APC discover how gut bacteria communicate with their host to specifically regulate weight gain and serum cholesterol levels
- Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Government of Ireland addresses Future in Review (FiRE) Conference in California

Dr Susan Joyce and Dr Cormac Gahan, Alimentary Pharmabiotic Centre (APC), University College Cork.

June

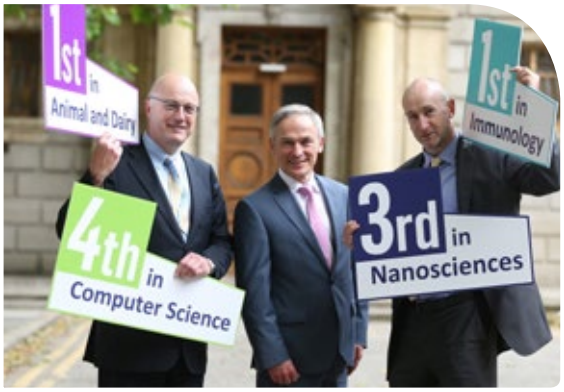
- Over 500 Primary Schools in Ireland received awards for Science and Maths Excellence
- 20 new industry–academia partnerships announced through SFI Industry Fellowship Programme
- Royal Society and SFI signed historic new collaboration agreement
- AMBER announced a new strategic partnership with Bell Labs

Children from John Scottus School, Northumberland Road with Mr Sean Sherlock TD, the former Minister for Research and Innovation and Dr Ruth Freeman, Director of Strategy and Communications, SFI.

The Year in Review - 2014

July

- SFI Targeted Research Professorship Programme announced to attract international research talent to Irish universities
- Mr Brendan Howlin TD, Minister for Public Expenditure and Reform, launched Open Data initiative developed by INSIGHT
- €23 million in new funding announced through SFI's Starting Investigator Research Grant (SIRG) and Career Development Award (CDA) Programmes



Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government of Ireland, Mr Richard Buton, TD, Minister for Jobs, Enterprise and Innovation. and Prof Vinny Cahill, Dean of Research, Trinity College Dublin.

August

- A research project led by Prof Noel Caplice in UCC with collaborators in the Mayo Clinic, USA developed a new device to help coronary disease
- AMBER researchers created wearable sensors using rubber bands
- NUI Galway researchers identified an enzyme that has a key role in the spread and survival of blood cancer cells

Prof Noel Caplice, University College Cork.

September

- Prof Shane O'Mara is first ever Irish-based scientist to be awarded a Senior Investigator Award, under the SFI, HRB, Wellcome Trust Biomedical Partnership
- Dr Manus Biggs, NFB, NUI Galway, won the Larry Hench Young Investigator Award
- Researchers at NUI Galway publish research outlining the use of adult stem cells in the fight against cornea transplant rejection
- UCC researchers developed a microneedle-based patch that results in increased vaccine-induced protection against malaria infection

Prof Shane O'Mara,Trinity College Dublin.

October

- New Horizon 2020 Strategic Research Proposals Group established to identify large-scale funding opportunities for Ireland
- Prof Des Higgins, UCD makes Nature's Top 10 most highly cited research publications of all time
- €245 million investment in Five New World-Class SFI Research Centres announced
- UL researcher solves major scientific challenge which unlocks potential for rapid diagnostics tools

Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government of Ireland, Mr Damien English TD, Minister for Skills, Research & Innovation.

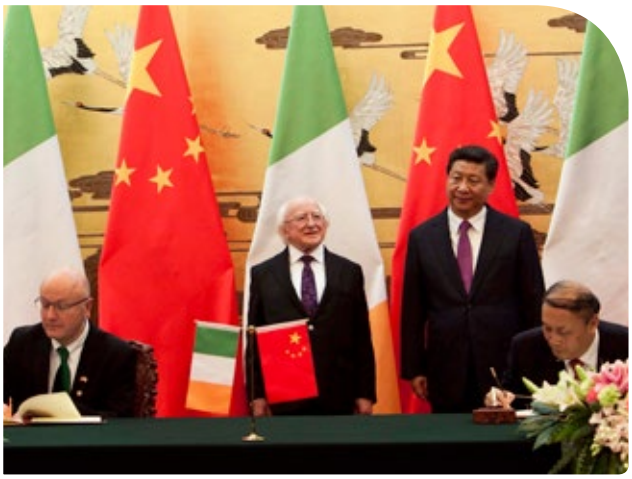
November

- 250,000 people participated in Science Week 2014, 'Power of Science'
- UCD Prof Barry Smyth was announced as the SFI Researcher of the year 2014
- UCD appointed world renowned engineering researcher Prof Robert Bogdan Staszewski. Prof Staszewski was awarded €5 million SFI's Research Professorship Programme
- Ms Jan O'Sullivan TD, Minister for Education and Skills, launched All Ireland Linguistics Olympiad
- CNGL hosted Engaging Content, Engaging People showcasing digital content innovations
- Three Irish scientists received the 2014 Nature Award for Mentoring in Science at the SFI Science Summit 2014

Mr Damien English TD, Minister for Skills, Research & Innovation, Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government of Ireland and Evan and Cara Joyce.

December

- President Higgins attends event in Beijing to celebrate scientific links between Ireland and China. SFI and National Natural Science Foundation of China sign co-operation agreement
- Five researchers received funding under the SFI-Pfizer Biotherapeutics Innovation Award programme
- New UCC research project into the Global Atmosphere and Climate Change announced through SFI's Strategic Partnership Programme
- 2,000 entrepreneurs, industrialists and researchers attended the first National Innovation Showcase in Dublin



Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government of Ireland, President of Ireland, Michael D. Higgins, President of the People's Republic of China, Xi Jinping and Prof Yang Wei, President of the National Natural Science Foundation of China (NSFC).

Overview

During 2014, SFI has continued the implementation of its strategic plan – Agenda 2020, with the aim of ensuring that the State's investment in scientific research delivers positive impact for the Irish economy and society.

2014 has seen a number of opportunities realised:

- leveraging of the State's investment through the establishment of major partnerships with industry, charities, national and international funding bodies;
- the establishment of five new SFI Research Centres at a cost of €155 million over five years, matched by cash and in-kind commitment from industry of €90 million;
- continued support and development of excellent early career researchers with the allocation of €23 million to 41 early career researchers through the SFI Starting Investigator Research Grant (SIRG) and Career Development Awards (CDA);
- a number of initiatives were undertaken to encourage and support SFI's research community in maximising their drawdown of H2020 funding;
- a national Science Week reaching over 250,000 people annually through over 800 events delivered by a myriad of champions of science, technology and engineering industry/education and community groups such a libraries, city/county councils in a joint effort to improve the recognition of the value of science and technology in our society;
- Smart Futures: a nationally coordinated government and industry programme which challenges stereotypes blocking young people choosing scientific careers. In 2014 it reached over 26,000 post primary schools through volunteer work.

Excellent Science

Through investment in scientific and engineering research, Ireland has over the past number of years consolidated its position in the international ranking of scientific research capability. Ireland is now in the Global Top 20 for the quality of our scientific research, moving up to 16th in 2014. Ireland is ranked first in the world for its research in Nanoscience, second in Computer Science and Immunology, third in Animal and Dairy and fifth for Materials Science.

SFI researchers are contributing significantly to this achievement. Researchers reported a total of 3,925 publications in 2014. Of these, 2,029 publications were attributed to active SFI awards.

It is noteworthy that 45% of publications from active SFI awards have a non-Irish co-author and 8% have a co-author from industry.

Country Ranking (Thomson Reuters)
Listed by Citations per Paper

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

UP 4 PLACES IN 2014

Source: Essential Science Indicators℠ from Thomson Reuters

SFI awards directly supported 2,029 scientific publications

CASE STUDY #5

Minister Howlin Launched Ireland's National Open Data Portal

Mr Brendan Howlin TD, Minister for Public Expenditure and Reform.

Ireland's national Open Data Portal was developed by Insight Centre for Data Analytics, NUI Galway.

Open Data forms a core element of Ireland's first Open Government Partnership (OGP) National Action Plan which, following Government approval, will be published and transmitted to the OGP Steering Committee to facilitate Ireland's full membership of the Partnership. Insight was commissioned to carry out this research to develop the basic building blocks for a national Open Data strategy.

Speaking at the launch of the portal in July 2014 Mr Brendan Howlin TD, Minister for Public Expenditure and Reform said: "I am very excited about Open Data. Studies show that publication of official non-personal data in open format has the potential to drive more effective decision-making and efficient service delivery, spur economic growth, and empower citizens to take an active role in improving their own communities".

Prof Stefan Decker, Director of Insight at NUI Galway, commented: "The Open Data Roadmap and Portal developed by Insight at NUI Galway is a great example of leveraging research results and expertise funded by SFI and Enterprise Ireland for the good of society. Together with the civil society we are able to make a contribution to Ireland by enabling the use of public data assets for economic and societal benefit."

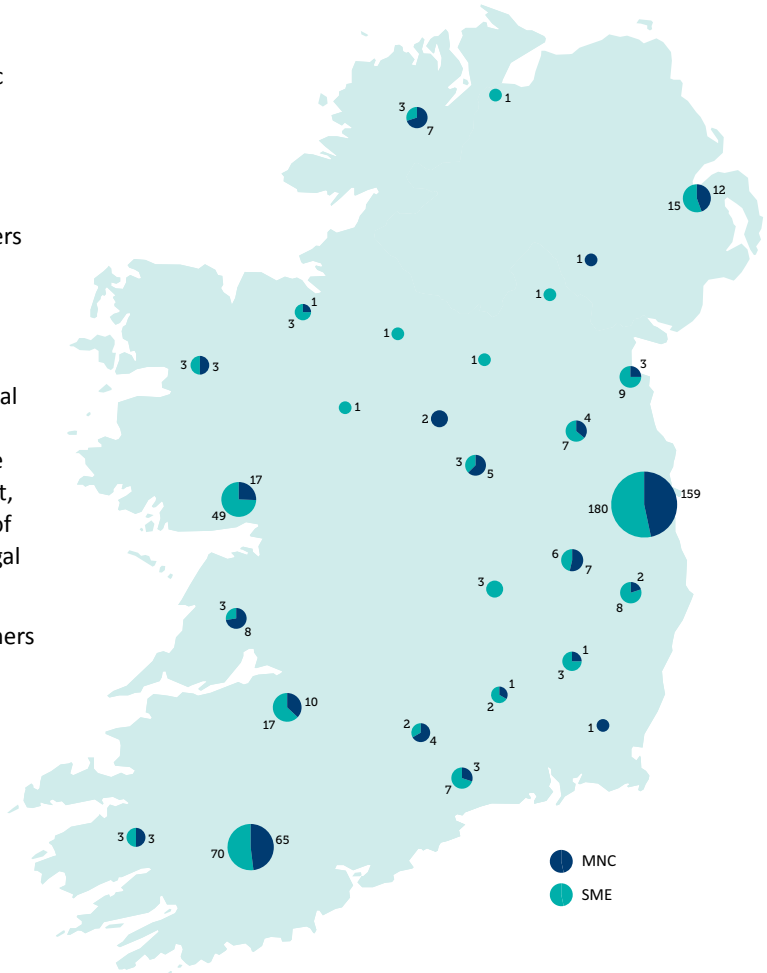
Engaging with Industry

Industry collaboration remains one of the key mechanisms for transferring the benefits of public investment in research into sustainable economic development, creating competitive advantage for Ireland. SFI programmes and initiatives have a strong focus on encouraging and creating a collaborative environment between the researchers SFI supports and industry at home and overseas. In 2014, SFI awards directly supported over 1,200 collaborations with industry - the main reasons for these collaborations, cited by SFI researchers include: learning about and/or testing the potential of ideas and options for possible new directions for R&D and providing a flexible and cost-effective extension of R&D resources (expertise, equipment, facilities) available to the organisation. Over half of these collaboration with industry (57%) have a legal agreement in place.

Pre-commercial outputs from SFI-funded researchers attributed to SFI awards and currently include:

- 1 spin out company
- 18 licence agreements
- 31 patents filed
- 13 patents awarded
- 5 standards contributed
- 82 invention disclosures

Industry Collaborations by County



SFI Research Centres

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

SFI has committed **€355 million** to the centres to support research of scale, excellence and impact.

SFI now has **12** cutting-edge SFI Research Centres throughout the country.

The centres will work with over **200** industry partners.

Industry is projected to commit in order of **€190 million** over the next six years to these centres to execute cutting-edge, world-class research.

A key objective of SFI's Agenda 2020 is to develop a set of world-leading, large-scale research centres that will provide major economic impact for Ireland. SFI Research Centres link scientists and engineers in partnerships across academia and industry to address crucial research questions; foster the development of new and existing Irish-based technology companies; attract industry that could make an important contribution to Ireland and its economy; and expand educational and career opportunities in Ireland in science and engineering.

Twelve SFI Research Centres have been established through an investment of €355 million from Government through SFI and a further €190 million from industry collaborators. Over 200 companies are involved in collaborations with the centres. After an extensive review for scientific excellence and impact the first seven centres were established in 2013. Five additional centres were approved in 2014 and commenced operations in early 2015.

These 12 SFI Research Centres are focused on strategic areas of importance to Ireland with a focus on delivering scientific excellence with economic and societal impact - Pharma, Big Data, Medical Devices, Nanotechnology/ Materials, Marine Renewable Energy, Food for Health/Functional Foods, Perinatal Research, Applied Geosciences, Software, Digital Content, Telecommunications and Medical Devices.

SFI Research Centres

ADAPT - Centre for Digital Content Platform Research

- Global digital connectivity enables enterprises, communities and individuals to share information and communicate globally at incredible speed, in enormous volumes, across the world's languages, with automatic personalisation, over an ever-increasing number of devices.
- ADAPT's research will fundamentally change the way in which enterprises, communities and individuals can engage globally in real time.
- ADAPT will enhance efficiencies and global reach for industry partners in key priority sectors for Ireland, including ICT, localisation, financial services, eCommerce and many more.

Industry partners: *Acrolinx, AOL, Cisco, Commetric, eBay, FBD, Huawei, iFlyTek, Intel, Microsoft, Moravia, Novartis, PayPal, Sajan, Symantec, VistaTec, Welocalize, Xanadu Consultancy, Xcelerator Machine Translations*

Academic Partners: *Trinity College Dublin, Dublin City University, University College Dublin, Dublin Institute of Technology*

www.adapt.ie

Advanced Materials and BioEngineering Research Centre (AMBER)

- 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 and processing 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: *Adama Innovations, Amatech, Amebis Ltd, Bell Labs Alcatel-Lucent, Bioplastech, Cellulac Ireland, DePuy Synthes, Eblana Photonics, Innalabs, Innovative Polymer, Compounds (IPC) Ltd, Intel, Medtronic, Merck Millipore, Mergon Group, Proxy Biomedical, SABmiller Plc, Sigmoid Pharma, Solvotrin Therapeutics, Thomas Swan & Co Ltd, Velox, Western Digital*

Academic Partners: *Trinity College Dublin, University College Cork, The Royal College of Surgeons in Ireland*

www.ambercentre.ie

Alimentary Pharmabiotic Centre (APC)

- 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: *Alimentary Health, Cremo SA, Danone, Friesland Campina, GE Healthcare, General Mills, Janssen Pharmaceuticals, Kerry Foods, Mead Johnson Nutrition, Nutricia Advanced Medical Nutrition, Second Genome, Sigmoid Pharma, Suntory Wellness, Trino Therapeutics*

Academic Partners: *University College Cork, Teagascm, Cork Institute of Technology*

www.ucc.ie/research/apc

CONNECT

- The key challenges that face society all drive the need for new and varied forms of networked services. These include mobile Internet, connected health, smart agriculture, smart grids and metering, and environmental monitoring services.
- The CONNECT Centre focuses on future broadband, cellular and Internet of-Things networks on which all services will be enabled; thereby growing the economy and supporting society at large.

Industry partners: *Alcatel-Lucent, Analog Devices, Arris, Benetel, BskyB, CISCO, Decawave, Digicel, EMC, Ericsson, ESB, Google, Huawei, IBM, InnaLabs, Intel, JCI, MA-COM, Movidius, Natcom Nonlinear Systems, NXP, ON Semiconductor, Qualcomm, Rambus, RCNx, Real Wireless, Rohde & Schwartz, S3, Scorpion Networks, Skyware, Socowave, Synopsys, Taoglas, UTRC, Xilinx*

Academic Partners: *Trinity College Dublin, Cork Institute of Technology, Dublin City University, Dublin Institute of Technology, Maynooth University, University College Cork, University College Dublin, University of Limerick, Waterford Institute of Technology, Tyndall National Institute*

www.connectcentre.ie

CÚRAM - Centre for Research in Medical Devices

- As the global population ages, one in three people are expected to be over 65 by 2050, with the potential financial burden for healthcare expected to rise.
- CÚRAM is engaged in research to radically improve health outcomes for patients by developing innovative implantable 'smart' medical devices to treat major unmet medical needs.
- This research will position Ireland as the leader in developing medical device technologies which will provide affordable transformative solutions for chronic diseases.

Industry partners: *35 industry partners including Aerogen, Arch Therapeutics, Boston Scientific, Cook Medical, Medical Energetics, Mylan Inc, Starletderma*

Academic Partners: *NUI Galway, University College Dublin, University College Cork, Dublin City University, Trinity College Dublin, University of Limerick, The Royal College of Surgeons in Ireland*

www.curamdevices.ie

iCRAG - Irish Centre for Research in Applied Geosciences

- Geoscience underpins the discovery of raw materials, water and energy resources that are critical to the world's economy.
- Ireland is home to Europe's largest zinc mine, untapped hydrocarbon resources in challenging North East Atlantic deep water environments, and a diverse geological framework with important untapped seabed and groundwater resources.
- The iCRAG centre will carry out research to find and harness these resources whilst protecting the environment.

Industry partners: *AGEC, APEX, Atlantic Petroleum, AWN Consulting, Boliden, BRG Ltd, Byrne Looby Partners, Cairn Energy, Chevron Corporation, Coastway Surveys, David Ball Associates, Europa Oil and Gas, Eurostone, ExxonMobil, FLI Group, GDG Geo Solutions, Geoscience Ireland, Geoserv, Homebond, Husky Energy, IGSL, International Lithium Corporation, Irish Drilling Ltd, JB Barry & Partners Ltd, Kosmos Energy, Maersk Oil, Meehan Drilling, National Roads Authority, Nicholas O'Dwyer, PIPCO ENI, Priority Drilling, Priority Geotechnical, Providence Resources, Quarry and Mining Equipment Ltd (QME), Repsol Exploration, San Leon Energy, Serica Energy, Shell, SLR Consulting, Sorhill Advocates Pty Ltd, Sosina Exploration Ltd, SRK Consulting, Tobin Consulting Engineers, Trevali Mining Corporation, Tullow Oil, Verde Environmental Group, Woodside Energy*

Academic Partners: *University College Dublin, Trinity College Dublin, NUI Galway, University College Cork, Maynooth University, Dublin Institute of Advanced Studies, Teagasc, Geological Survey of Ireland, Environmental Protection Agency*

www.icrag-centre.org

Institute of Fetal and Neonatal Translational Research (INFANT)

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

Industry partners: *Alere, Axxam, BioScreen Health, BrepCo Pharmaceutical, Crème Global, Danone Nutricia, Fresenius-Kabi, IBM, Incereb, Inspiration Healthcare, Kvikna, Laya Healthcare, Mead Johnson Nutrition, MedSciNet, Metabolomic Diagnostics, Newsweaver, Nihon Kohden, Waters Corporation*

Academic partners: *University College Cork, The Royal College of Surgeons in Ireland*

www.infantcentre.ie

Centre for Data Analytics (Insight)

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

Industry partners: *Avaya, Cisco, Elsevier, Flashpoint, HP, Irish Rugby Football Union, Microsoft Ireland, NitroSell, Performance Tracking Solutions, RTÉ, Shimmer Research, The Irish Times*

Academic partners: *University College Dublin, Dublin City University, NUI Galway, University College Cork, Maynooth University, The Royal Irish Academy, Tyndall National Institute, Trinity College Dublin*

www.insight-centre.org

Irish Photonic Integration Research Centre (I-PIC)

Photonic Device and System Integration Strategies for applications such as:

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

Industry partners: *British Telecom, Compact Imaging Ltd, Eblana, Epi-light Ltd, FazTech, Firecomms, InfiniLED, Intel, Lake Region Medical, Luxcel Biosciences, M/A-COM, Pilot Photonics, Radisens Diagnostics, Seagate, Somex, Stryker, X-Celeprint, Xilinx*

Academic partners: *Tyndall National Institute, Cork Institute of Technology, Dublin City University, University College Cork*

www.ipic.ie

LERO - The Irish Software Research Centre

- Software is everywhere and key Irish industry sectors such as manufacturing, medical devices, financial services, cloud computing, analytics, and smart cities depend on it.
- LERO's research mission is to replicate the success of traditional software engineering in the context of large-scale, pervasive, physically-integrated, highly interconnected, evolving, and continuously-available systems, in which the boundary between design-time and runtime is disappearing.

Industry partners: *ACI Worldwide, Ada Security Systems, Aerogen, Allstate Insurance (NI), Almir Business Ltd, Bluebridge Technologies Ltd, Comfort Keepers, dabl Health, Dell, DMF Systems, Drop Technology, Ericsson, European Space Agency, Fijowave, Hermitage Medical Clinic, Hewlett Packard Company, IBM, Information Mosaic, Intel, Kugler Maag, Lumension, Microsoft, Movidius, Novartis, Ocuco Ltd, Portable Medical Technology, ProDevelop, QAD, RedMed, Rigney Dolphin, Group, S2 Grupo, S3 Group, Software Quality Systems, Storm Technology, Two-Ten Health, TXT Group, United Technologies Research Centre, Vitalograph, Volkswagen, Vu2Vu, Zimory*

Academic partners: *University of Limerick, Dublin City University, Dundalk Institute of Technology, NUI Galway, Maynooth University, Trinity College Dublin, University College Cork, University College Dublin*

www.lero.ie

Marine Renewable Energy Ireland (MaREI)

- 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: *Analog Devices, Aquafact International Services, Automsoft International, B9 Power, Bri Toinne, CAPACITÉS, Commissioners of Irish Lights, DePuy Synthes, DP Energy Ireland, ÉireComposites, Electricity Supply Board, Enerco Energy, Ervia, GKinetic Energy, GRSI Energy, Johns Manville, Kosmos Energy Ireland, MAFIC Black Basalt, Marine Harvest Ireland, Marsh Technology, Mymic Global, Pure Marine Gen, RealSim, Resolve Marine, Shannon Foynes Port Company, Shell E&P Ireland, SkySails, SonarSm, Technology from Ideas, Techworks Marine, Teledyne Blueview, Teledyne Reson, Wave Energy Conversion Corporation of America*

Academic partners: *University College Cork, University of Limerick, NUI Galway, Maynooth University, University College Dublin, Cork Institute of Technology*

www.marei.ie

Synthesis & Solid State Pharmaceutical Centre (SSPC)

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

Industry partners: *Abbvie, Alkermes, Allergan, Amebis, APC Limited, Biomarin, Bristol Myers Squibb, Clarochem Ireland, Eirgen Pharma, Eli Lilly, FMC, Genzyme: A Sanofi Company, Glantreo, GlaxoSmithKline, Innopharma Labs, Janssen, Merck Sharp & Dohme, Novartis, Pfizer Inc, Roche, Scale-Up Systems, UCB Pharma*

Academic partners: *University of Limerick, University College Cork, University College Dublin, Trinity College Dublin, Dublin City University, NUI Galway, Athlone Institute of Technology, Waterford Institute of Technology, National Institute for Bioprocessing Research and Training*

www.ul.ie/sspc

Supporting an internationally competitive research base, together with training high skilled researchers (PhDs graduates), is at the heart of initiatives undertaken by SFI. During 2014, SFI directly supported approx. 2,800 people throughout the research eco-system in Ireland.

Building Strategic Partnerships

SFI is committed to leveraging its investment and capability to the maximum extent possible through building and collaborating in strategic partnerships. SFI aims to strategically identify and target entities with the potential to generate multiplier effects that contribute to the delivery of its objectives.

2014 has been an important year for developing key partnerships to ensure that SFI maximises the return on State investment.

- A North/South research collaboration agreement was established between SFI and the Department for Employment and Learning Northern Ireland (DELNI) which will allow Queen's University and the University of Ulster researchers to participate for the first time as full academic partners in SFI's Investigators Programme, funded by DELNI.
- A unique Public Private Partnership was established between SFI and Pfizer that aims to promote new biotherapeutic breakthroughs through academic-industry collaboration.
- The Royal Society and SFI signed a historic new collaboration agreement which will provide Ireland's best and brightest young scientists with a unique opportunity to be awarded a prestigious research fellowship by the Royal Society alongside the best early career researchers from the UK.
- SFI and the Irish Cancer Society agreed a partnership to fund a world-leading Cancer Research Centre that will develop new insights into cancer and deliver new approaches to treatment.
- Two awards have recently been made to Irish based researchers through the SFI-HRB-Wellcome Trust Partnership.
    - Prof Shane O'Mara was announced as the first ever Irish-based researcher to be awarded a Senior Investigator Award under the SFI-HRB-Wellcome Trust Biomedical Research Partnership, receiving €1.2 million to carry out research on understanding how interactions between differing brain areas support normal memory.
    - Dr Colm J. Ryan has been awarded a Sir Henry Wellcome Postdoctoral Fellowship worth €300,000 over four years to work in Systems Biology Ireland (SBI) at University College Dublin. Dr Ryan is the first recipient of this prestigious award, funded under the SFI-HRB-Wellcome Trust Biomedical Research Partnership, to be hosted in an Irish laboratory.
- SFI in collaboration with the Irish Research Council (IRC) launched a call for postgraduates in the ST&I policy field through the 2015 Government of Ireland Postgraduate Scholarship (GIPS) Scheme.
- Through the Strategic Partnership Programme SFI funded two highly innovative projects in advanced imaging and atmospheric sensing. In both projects, SFI funding has enabled world-class collaborative research to be undertaken between Irish-based researchers and leading international partners who have made significant cash and in-kind contributions. A partnership between Dr Albert Ruth (UCC) and the Karlsruhe Institute of Technology was funded under the SFI Strategic Partnership Programme which aims to develop a compact instrument for the detection of trace gas on board commercial flights.

Supporting People

One of the primary reasons that the Government invests in scientific research is to upskill the nation's human capital. People with high levels of training and skills are an ingredient in ensuring innovation is delivered, leading to higher value products and services, and improved living standards.

Supporting an internationally competitive research base, together with training highly skilled researchers (PhDs graduates), is at the heart of initiatives undertaken by SFI. During 2014, SFI directly supported approx. 2,800 people throughout the research eco-system in Ireland, this included 468 award holders. 1,665 postdoctoral researchers and postgraduate students were supported by SFI. Just over half of SFI research team members are Irish, 26% are European (excluding Ireland) and 19% come from outside of Europe. 48% of PhD students are international students.

CASE STUDY #6

World First in Graphene Innovation

Prof Jonathan Coleman, SFI Research Centre, AMBER, Trinity College Dublin.

A research project led by Prof Jonathan Coleman in AMBER, the SFI Research Centre for materials science centre headquartered at Trinity College Dublin announced that they have for the first time, developed a new method of producing industrial quantities of high quality graphene.

Described as a wonder material, graphene is a single-atom thick sheet of carbon. It is extremely light and stronger than steel, yet incredibly flexible and extremely electrically conductive.

The discovery will change the way many consumer and industrial products are manufactured. The materials will have a multitude of potential applications including advanced food packaging; high strength plastics; foldable touch screens for mobile phones and laptops; super-protective coatings for wind turbines and ships; faster broadband and batteries with dramatically higher capacity than anything available today.

Thomas Swan Ltd. has worked with the AMBER research team for two years and has signed a license agreement to scale up production and make the high quality graphene available to industry globally. The company has already announced two new products as a result of the research discovery (Elicarb®Graphene Powder and Elicarb® Graphene Dispersion).

2,851 people working on SFI supported research projects including:

Award Holders 468

Post doctoral Researchers 628

Post Graduate Students 1,037

A total of 448 team members left SFI research groups in 2014, 65% of these remained in Ireland, 22% moved to Europe and 12% moved to non-European countries. The number of leavers moving to industry based in Ireland increased to 20% in 2014 (up from 16%).

Location of team members who left SFI research groups in 2014

SFI awards directly supported 1,843 international academic collaborations in 57 countries.

SFI investments deliver fourth level graduates, the majority of whom are expected to transfer into employment in high-tech companies and, to a lesser extent, in the public service, while a significant minority will stay within the academic community. SFI launched a number of programmes in 2014 aimed at enhancing the migration of researchers to the private sector through the provision of industry relevant training and experience.

The Industry Fellowship Programme and Advance Award were both opened for proposals in 2014. These programmes each serve to support the career development of both established and early career researchers. The SFI Industry Fellowship Programme aims to facilitate exchanges between academia and industry to stimulate excellence through knowledge transfer and training. €482,621 was announced to the SFI Industry Fellowship Programme to fund 7 new industry-academic partnerships. A revised second call was held in December 2014 with a much broader pool of eligible applicants. The SFI Advance Award aimed to encourage female participation in research, €1.75 million was allocated to fund 10 awards.

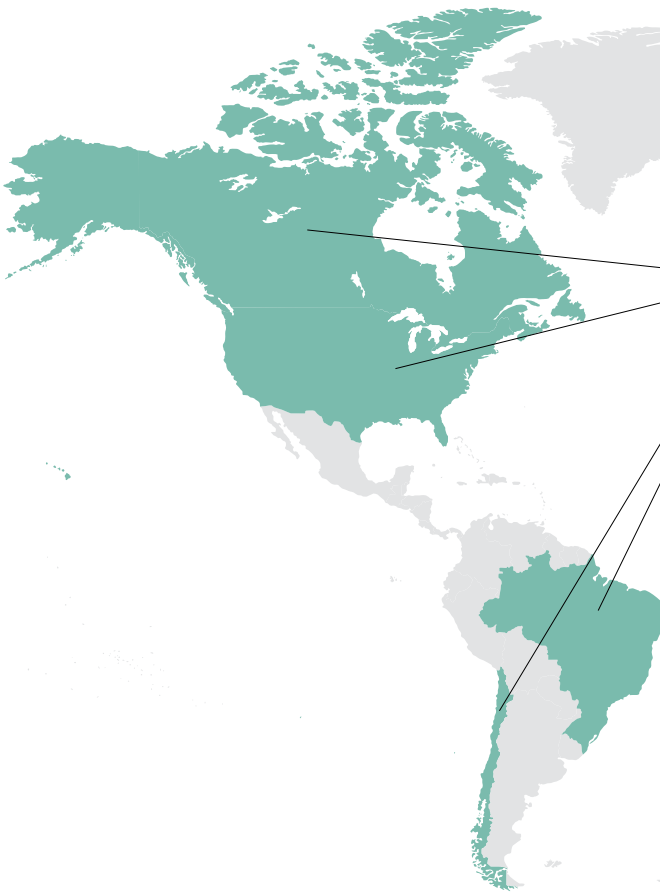
Another key development has been the support and development of excellent early career researchers with the allocation of €23 million to 41 early career researchers through the SFI Starting Investigator Research Grant (SIRG) and Career Development Awards (CDA). SFI also continues to support excellence in early career development through the prestigious SFI President of Ireland Young Researcher Award (PIYRA) programme.

SFI in collaboration with the Irish Research Council (IRC) launched a call for postgraduates in the Science, Technology and Innovation (ST&I) policy field through the Government of Ireland Postgraduate Scholarship (GIPS) Scheme. In addition SFI continued its SFI Fellowship Programme (internships) that has provided young researchers with the opportunity to work in award management and policy sectors in SFI.

Taken together, this suite of programmes offers a range of career broadening opportunities for both developing and early career researchers.

Prominent Irish scientists received the 2014 Nature Award for Mentoring in Science at the SFI's 2014 Summit. Nature hosts these annual awards to champion the importance of mentoring and inspiring a generation of young scientists.

Pictured at the awards are Chair of the judging panel, Prof Luke O'Neill, Trinity College Dublin, award recipient, Prof Martin Clynes, Dublin City University, Editor-in-Chief of Nature, Philip Campbell, award recipient, Prof Cliona O'Farrelly, Trinity College Dublin and award recipient, Prof Cormac Taylor, University College Dublin.



CASE STUDY #7

First National Innovation Showcase

The National Innovation Showcase event was the first showcase at national level of Ireland's research and technology centres of scale and excellence.

This was part of a Government drive to open up the innovation, research and development infrastructure to business.

The main feature of the event was the exhibition of Ireland's research centres, which included SFI Research Centres, Technology Centres and other national research institutes. The showcase provided companies of all sizes the opportunity to meet representatives from each of the 38 centres.

The showcase and the production of a research centres directory was organised by Enterprise Ireland on behalf of the Department of Jobs, Enterprise & Innovation in close co-operation with SFI and IDA Ireland.

Approximately 1,700 entrepreneurs, industry representatives and researchers from around the country attended on 2nd December 2014.

Panel discussion at the Innovation Showcase, Mr Damien English TD Minister for Skills, Research & Innovation, Mr Martin Shanahan, CEO IDA Ireland, Ms Julie Sinnamon, CEO Enterprise Ireland and Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Government of Ireland.

Enhancing Ireland's International Reputation

Ireland's reputation as a location for world class research continues to grow. In 2014 there were over 2,498 academic collaborations, 74% of which were with international partners. The international collaborations cover most of the globe – the largest number are with European academic institutions (58%), with North America and Asia comprising 22% and 11% respectively. The primary objective for these collaborations is to facilitate joint publications and/or research (83%).

International Academic Collaborations by Country in 2014

Australia	44
Austria	23
Belarus	2
Belgium	24
Brazil	73
Bulgaria	1
Canada	45
Chile	8
China	94
Colombia	1
Cyprus	1
Czech Republic	3
Denmark	29
Egypt	2
Finland	17
France	109
Georgia	1
Germany	141
Greece	3
Hungary	2
Iceland	1
India	61
Iran	1
Israel	5
Italy	63
Japan	17
Korea, South	10
Kuwait	1
Latvia	1
Lebanon	1

Luxembourg	2
Malta	2
Mauritius	1
Netherlands	47
New Zealand	18
Northern Ireland	62
Norway	11
Pakistan	1
Poland	7
Portugal	19
Puerto Rico	3
Russia	7
Saudi Arabia	8
Serbia and Montenegro	1
Singapore	9
Slovakia	3
Slovenia	4
South Africa	5
Spain	65
Sweden	54
Switzerland	29
Taiwan	5
Thailand	1
Turkey	7
Uganda	1
United Kingdom	326
United States	361
Total	**1843**

Events

- SFI hosted a research showcase as part of the official St Patrick's Day mission to Washington by the Taoiseach Enda Kenny. At the event the Taoiseach presented the inaugural SFI St Patrick's Day Medal to Dr Garret FitzGerald. The event was used as a platform to showcase the impactful research that is underway in Ireland through the involvement of SFI Research Centres. In addition, the event highlighted SFI's funding programmes which are designed to attract both early career stage and established/prominent researchers to Ireland and to highlight SFI industry facing programmes.
- SFI and the Royal Society, in partnership with Science Gallery hosted an event at the Royal Society in celebration of Ireland/UK collaborations on the occasion of President Higgins' State Visit to the UK. The event was attended by Fellows of the Royal Society with personal or collaborative links to Ireland, early career stage researchers working in or close to London with personal or collaborative links to Ireland including SFI research team alumni.
- A formal partnership with the Royal Society was announced on the 30th June in the Royal Irish Academy. Two briefings were arranged for potential applicants in July, both were attended by representatives of the Royal Society.
- SFI, in partnership with the Chinese Academy of Sciences (CAS), hosted a celebration of China/Ireland Research Collaboration in Beijing on December 9th as part of President Higgins' State Visit to China. The event was attended by 150 academics based in China that have collaborations with researchers in Ireland. Many of the attendees had spent time in SFI labs in Ireland and expressed their strong desire to maintain and deepen their links with colleagues in Ireland. The President, along with Mr Michael Noonan TD, Minister for Finance and Mr Charles Flanagan TD, Minister for Foreign Affairs and Trade, met with a number of the academics, some of whom presented posters.

  During the state visit SFI renewed the agreement on cooperation with the National Natural Science Foundation of China at an official ceremony in the Great Hall of the People. The signing was witnessed by the Presidents of Ireland and China.

An Taoiseach Enda Kenny presents the Inaugural SFI St. Patrick's Day Science Medal to Dr Garret FitzGerald, McNeil Professor in Translational Medicine and Therapeutics, University of Pennsylvania in Philadelphia, in Washington DC.

Leveraging Funding from other Sources

Research that is scientifically excellent and that brings direct economic and social benefits should have multiple sources of support. Equally, large research projects require a level of funding that can realistically be met only by multiple investors. Evidence of scientific excellence is supported by the winning of funding from international sources such as the ERC and in the coordination of EU projects. Evidence of impact potential lies in attracting partnership requests from major international companies or universities.

A diversified income stream is thus an indicator of both relevance and quality.

It also contributes to the sustainability of the system and enhances its capability of delivering strategic goals, as a broad funding base is inherently more stable. A broad funding stream also ensures the resilience and efficiency of individuals and the continued development of research careers.

Ireland's success in competing for European Research Council (ERC) grants under Horizon 2020 has significantly exceeded our performance in previous years. The ERC's prestigious grants support excellent research across all fields. ERC funding to ERC grantees in Horizon 2020 in Ireland is so far over €30 million. SFI continues to run its European Research Council (ERC) Support and Development Programmes which collectively provide support to the community both to develop research programmes to win ERC funding and also to support successful ERC awardees.

Amount of external funding commitments secured by SFI-funded Researchers*

	2014
Private Enterprise	**26,508,100**
Enterprise Ireland (EI)	**25,875,390**
European Union - Framework Programme	**13,188,058**
Irish Research Council (IRC)	**9,565,299**
Department of Agriculture Fisheries and Food	**6,620,627**
Charity/Non-Profit Organisation (Irish)	**6,282,316**
European Union - Horizon 2020 (Marie Curie)	**4,637,873**
Other International Government Source	**4,632,344**
Health Research Board (HRB)	**3,711,765**
Other International Interest Organisation	**2,641,867**
European Union - Other	**2,478,825**
European Union - Horizon 2020 (Other)	**2,211,349**
European Union - Horizon 2020 (ERC)	**1,978,928**
Charity/Non-Profit Organisation (International)	**1,587,179**
Other Irish Government Source	**1,473,106**
Department of Communications, Energy and Natural Resources (DCENR)	**771,692**
Teagasc	**673,500**
Wellcome Trust	**488,036**
Higher Education Authority Ireland (HEA)	**262,000**
Marine Insitute (MI)	**249,000**
Environmental Protection Agency (EPA)	**192,192**
National Science Foundation US (NSF)	**103,135**
Other Source	**10,000**
National Insitute of Health USA (NIH)	**6,522**
Total	**116,149,103**

**Data from SFI outputs 2014. This indicates commitment secured; not in year funding.*

SFI recognises the key role that the SFI Research Centres will play in leading and winning major international funding initiatives. Each SFI Research Centre has an agreed strategy which includes realistic targets for engaging with Horizon 2020. In order to facilitate their engagement in Horizon 2020, SFI has provided each SFI Research Centre with a supplement award for an EU Grant Manager at a total cost of approximately €4 million over five years. In addition, SFI has funded an additional EU Grant Manager, in partnership with the IUA whose role is to disseminate EU funding information to the research community, to assist in the development of applications to Marie Skłodowska-Curie Actions (MSCA).

Securing EU funding:

- SFI wrote a €5.5 million transnational Biomarker call in the Joint Programming Initiative (JPI) *A Healthy Diet for A Healthy Life* that was launched in April 2014. Two proposals were approved for funding, the second of which has two Irish-based partners.
- SFI partnered with 13 countries in the transnational call *Cross Disease Analysis of Pathways in the JPI on Neurodegenerative Diseases.* One proposal which includes an Irish partner will be funded.
- SFI partnered with 11 countries in a successful submission for a *Systems Medicine ERANET COFUND* application to Horizon 2020.

Public Engagement & Education

Science and technology play an increasingly important role in addressing the economic, social and environmental problems faced by the world today. The SFI Discover Programme seeks to promote the awareness and engagement of the Irish public with science, technology, engineering and maths (STEM). The SFI Discover programme manages projects/initiatives and provides funding to a number of programmes that support and develop the education and outreach STEM sector in Ireland.

These programmes explore and encourage novel means of public engagement and communications.

In 2014, 73 new projects were approved under the SFI Discover Programme with a direct audience reach of 402,975.

Key highlights from the SFI Discover funded projects in 2014 include:

SFI Discover coordinated Science Week 2014 which included providing a series of interactive science shows and workshops to libraries and other local bodies around the country during Science Week. These fun and engaging shows were available to local primary and post primary school children. For Science Week 2014, 165 shows were available throughout the country. In addition to this SFI supported six Regional Science Festivals in Cork, Galway, Sligo, the Midlands, Waterford and Mayo. These festivals offered a range of science shows, workshops and talks throughout the week. For Science Week 2014 the first seven SFI Funded Research Centres ran a series of exciting events across Cork, Limerick, Dublin and Galway (including family open days, workshops, public lectures and film nights) making the world of research accessible to the public. In previous years Science Week was solely funded through the SFI Discover programme. The funding of this year's Science Week has evolved to include funding through partnerships which represents a great example of the effective optimisation of exchequer funding.

SFI is a strategic partner with the *Festival of Curiosity,* Dublin's annual festival of science and culture, with a mission to create a culture of curiosity in Dublin and Ireland. The Festival featured a series of events including science talks, demonstrations, workshops, interactive theatre and film screenings. The Festival brought together children, family members, scientists, artists and the public in an integrated festival of science and culture and increased awareness of the importance of 'science' and its contribution to the economy and culture of Ireland.

The Smart Futures initiative, a new three year plan to deliver and increase the uptake of Science, Technology, Engineering and Maths (STEM) subjects, was launched in 2014.

CASE STUDY #8

Discover Primary Science and Maths Celebrated its 10th Year

Children from Gardiner Street Primary School with Prof Mark Ferguson, Director General of SFI and Chief Scientific Adviser to the Government of Ireland, Ms Aoibhinn Ní Shúilleabháin, Awards of Science and Maths Excellence Ambassador and Mr Sean Sherlock, former Minister for Research & Innovation.

Discover Primary Science and Maths (DPSM) Awards celebrated its 10th year in 2014.

The DPSM Awards celebrated its 10th anniversary. The awards are run through the SFI Discover Programme. Of the 517 recipients in 2014, 16 schools received their 10th Award of Science and Maths Excellence, and were presented with a prize from Abbott Ireland.

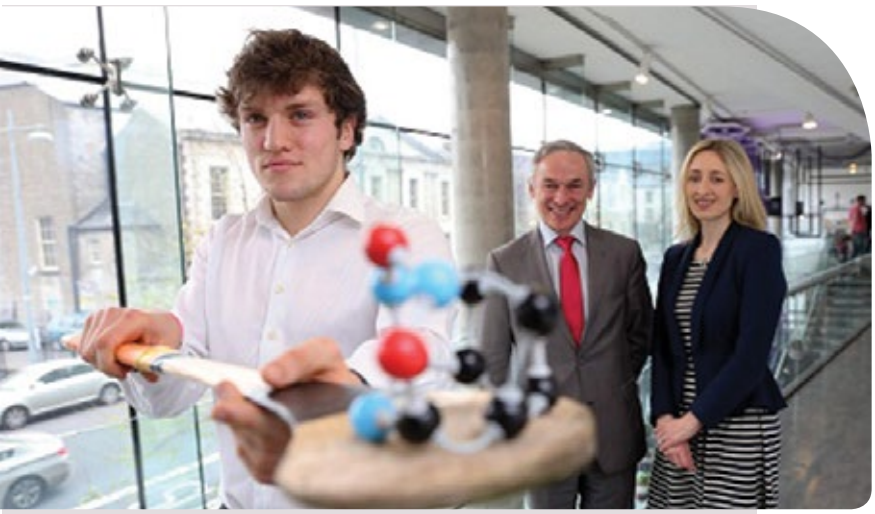
The Discover Primary Science and Maths Award requires primary schools to complete activities under five criteria to encourage a whole-school approach to maths and science excellence. These include engaging in hands-on DPSM science and maths activities, visiting DPSM Discover Centres and attending or hosting science events.

Hundreds of schools also participated in Greenwave, a nationwide project to track the advent of spring, as part of the Award programme. Participating schools recently submitted their log books for evaluation.

Ultimately the new strategy aims to deliver a 10% increase in the uptake of STEM subjects by students at second and third level by 2016. The programme has trained a total of 929 volunteers to date, delivering visits to 427 schools in the 2013/14 academic year and reaching over 13,000 students.

SFI-funded researchers participated in a number of education and public engagement activities in 2014, including media interviews and interactions, giving 742 public lectures and demonstrations and paying 923 visits to primary and secondary schools.

Over 500 Irish primary schools received the Discover Primary Science and Maths (DPSM) Awards of Science and Maths Excellence.



Shane O'Donnell, Smart Futures STEM Ambassador and County Clare hurler, Mr Richard Bruton TD, Minister for Jobs, Enterprise and Innovation and Dr Ruth Freeman, Director of Strategy and Communications in SFI at the Smart Futures strategy launch.

New Awards in 2014

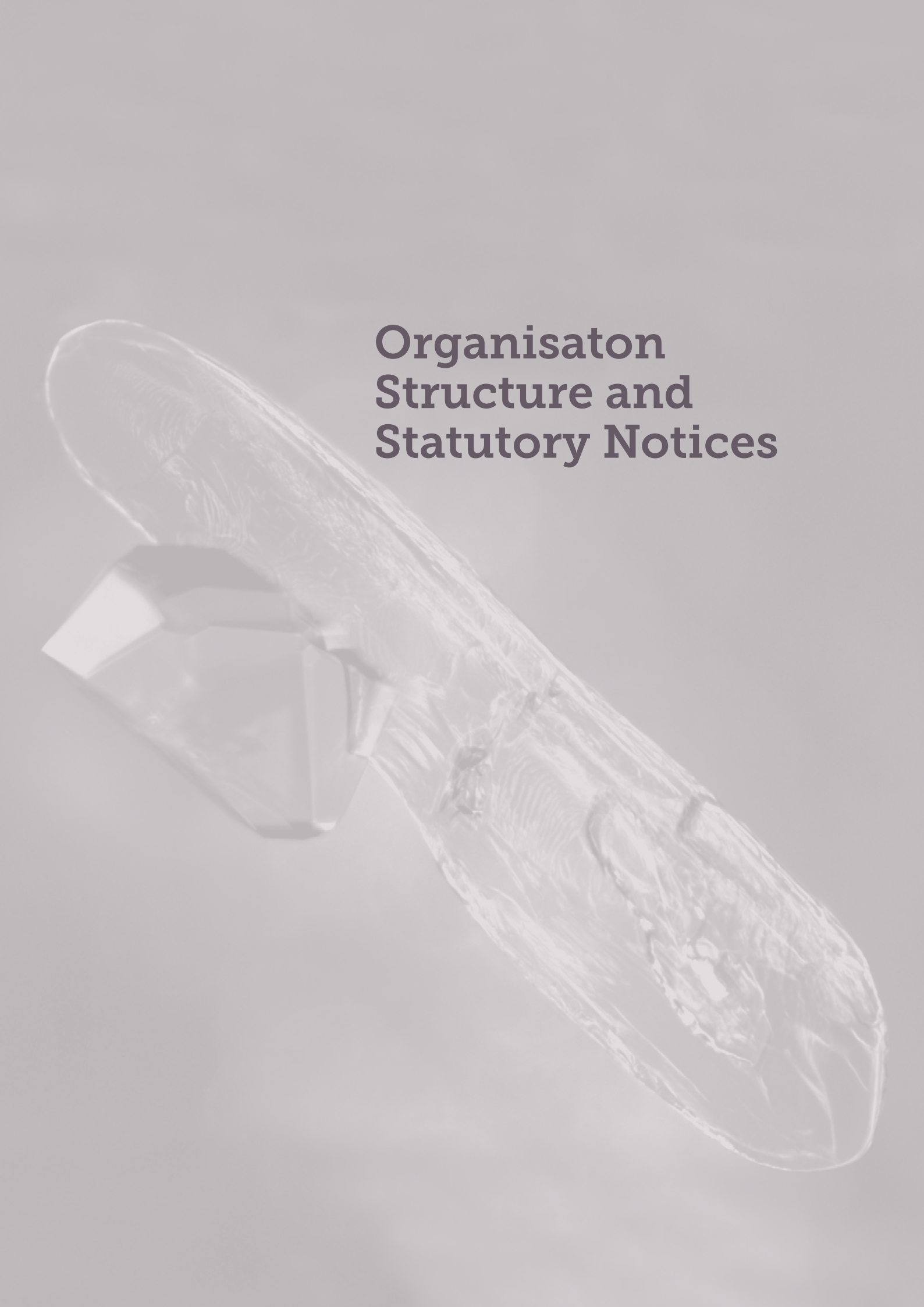
343 new awards were approved in 2014 across 23 programme with a value of €274 million. Total payments to research bodies/institutions in 2014 were €154 million.

Summary of award programme decisions in 2014:

- The SFI Investigators Programme supports excellent and impactful research projects by individual investigators. SFI funded 42 proposals, supporting 200 research positions, involving collaborations with 62 companies, at a total cost of €51 million. Awards include research in areas such as sustainable food production, biopharmaceutical production, cancer detection and investigating the control of epilepsy development.
- Five new SFI Research Centres were established through an investment of €155 million over five years, matched by cash and in kind commitment from industry of €90 million, focused on research areas including applied geosciences, internet of things, telecommunications, software and medical devices.
- SFI continued to support excellent early career researchers with the allocation of €23 million to 41 researchers through the SFI Starting Investigator Research Grant (SIRG) and Career Development Awards (CDA).

- SFI continued to support the SFI Industry Fellowship programme. €482,621 was allocated to the Industry Fellowship funding seven new industry-academia partnerships.
- To encourage female participation in research, the SFI Advance Award was launched in 2014: €1.75 million was allocated to fund 10 awards.
- Prof. Robert Bogdan Staszewski, was recruited by UCD to lead a cutting-edge research programme to increase Ireland's capability as a global centre for the 'Internet-of-Things'. Prof Staszewski was awarded €5 million in funding under SFI's Research Professorship Programme.
- Two projects were funded through the Strategic Partnership programme. Dr Peter Corcoran, NUIG formed a partnership with Fotonation and Dr Albert Ruth formed a partnership with the Karlsruhe Institute of Technology.
- The SFI-Pfizer Biotherapeutics Innovation Award Programme supports highly competitive, collaborative research projects between Pfizer and Irish academics with the objective of identifying biopharmaceutical candidates directed against novel disease targets or pathways of interest. Five projects were approved for funding at a total cost of €2.5 million to SFI.
- Through investment of €1.6m in 39 projects in 2014, over 4.5 million members of the Irish public will have access to initiatives designed to encourage their natural curiosity and grow their actively involvement in the growing conversation on science and technology.

Mr Damien English TD, Minister for Skills, Research and Innovation announced €1.7 million funding through the SFI Advance Award to support women returning to science, technology, engineering or mathematics careers. Pictured at the announcement are six of the recipients with Ms Ann Riordan Chairman of the Board of SFI, Prof Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government and Mr Damien English TD, Minister for Skills, Research and Innovation.



Organisaton Structure and Statutory Notices

Governance and Oversight

Corporate Governance Statement

In its continued adherence to the highest principles of Corporate Governance, the Board carried out an in-depth review of its policies and procedures during 2014 and as well as of the activities of its committees.

To this end, the SFI Board established a Corporate Governance Committee and as part of its work during the year the Committee ensured that roles and responsibilities of key officeholders were clearly defined. The Committee oversaw the review of, and revisions to, the Terms of Reference of other Board Committees including the Audit & Risk Committee and the Management Development / Board Advisory Nominations Committee. A number of policies and procedures were approved by the Board related to Corporate Governance including procedures for Board Members to obtain Independent Professional Advice. The Board also engaged in a number of evaluation activities during the year. The Board resolved to seek an external evaluation of its Corporate Governance regime and to progress this during 2015 under the stewardship of the Corporate Governance Committee.

SFI Board

Ms Ann Riordan
Chairman of the Board of SFI

An experienced board member, Ann Riordan has held a number of senior positions in the ICT sector. Notably she established Microsoft Ireland in 1990 and was instrumental in establishing the Fastrack to IT (FIT) initiative which has to date trained over 12,000 long-term unemployed people.

She has served on the Information Society Steering Committee and the Irish Council for Science, Technology & Innovation. Since her retirement from Microsoft she has served as: President of the Institute of Directors in Ireland; Chairman of the National Standards Authority of Ireland; Chairman of Tourism Ireland; Chairman of the Dublin Regional Tourism Authority and as a public interest director of the EBS Building Society.

Ms Bernie Cullinan, CEO Pragma Advisory,
Deputy Chairman of the Board of SFI

Ms Bernie Cullinan is CEO of Pragma Advisory, a company providing a full business advisory and HR solution for companies in the SME sector. Bernie is a board member of the DCU Educational Trust. Bernie has held C-level positions in a number of Irish technology companies. In these roles, Bernie has played a key role in driving growth in addition to raising funds in the US, UK and Ireland to support the growth strategies.

Bernie has also held challenging roles driving business growth within organisations, in Ireland, the UK and Australia. Bernie is a past Chairman of the Irish Software Association. Bernie has a BComm from UCD, an MBA from UCD and is a Fellow of the Chartered Institute of Management Accountants (CIMA). Bernie is a past President of CIMA.

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

Prof Mark Ferguson commenced as DG of SFI in January 2012 and as Chief Scientific Adviser to the Government in October 2012. Previously, Mark Ferguson was appointed Professor in Life Sciences at the University of Manchester in 1984, aged 28, when he was the youngest Professor in Britain. Mark has wide ranging research interests and has received numerous international awards, prizes, medals and honours.

Mark founded the Manchester Biosciences Incubator, which has successfully mentored a number of start-up companies and Mark co-founded (with Dr Sharon O'Kane) Renovo, a biotech company developing novel pharmaceutical therapies. Mark has served on a number of Committees, Panels and on the Board or Scientific Advisory Board of a number of international biotech companies. Mark is currently Honorary Professor of Life Sciences at the University of Manchester and a member of a number of learned Societies, and was awarded a CBE in 1999.

Prof Sir Tom Blundell, Director of Research and Prof Emeritus in Biochemistry, University of Cambridge

Prof Sir Tom Blundell is Director of Research and Prof Emeritus in Biochemistry, University of Cambridge. He has previously held teaching and research positions in the Universities of London, Sussex and Oxford and leads an active research team in structural and computational biology. Co-founder of Astex Therapeutics, he has also been a member of a number of Boards or Scientific Advisory Boards of both pharma & biotech companies including SKB, Celltech and UCB.

Tom has held a number of prestigious roles in public bodies, Royal Commissions and Charities including as a member of the advisory group to the Prime Minister and founding CEO and Chair of the UK Biotechnology and Biological Sciences Research Council. Tom was knighted in 1997 and is a member of several academies. He has received numerous international awards, prizes, medals and honours for his research work and holds Honorary Doctorates from 16 Universities.

Dr Rita R. Colwell, Prof University of Maryland and Johns Hopkins University Bloomberg School of Public Health and Chairperson of CosmosID Bioinformatics Inc.

Dr Rita Colwell is Professor both at the University of Maryland at College Park and at Johns Hopkins University Bloomberg School of Public Health and Chairperson of CosmosID Bioinformatics Inc. Dr Colwell served as the 11th Director of the US National Science Foundation (NSF) from 1998-2004. In her capacity as NSF Director, amongst other initiatives, she broadened the NSF range of programmes including cyber infrastructure and also special interaction in science and mathematics education, graduate science and engineering education and the increased participation of women and minorities in science and engineering.

Dr Colwell is a member of the U.S. National Academy of Sciences and has a number of honorary doctorates and serves on science advisory boards worldwide. She received the National Medal of Science from the President of the United States in 2006.

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

As member of the SFI Board up to April 2015, Dermot was Assistant Secretary General / Director of the Innovation and Investment Division of the Department of Jobs, Enterprise and Innovation.

He reported to the Secretary General of the Department and the Minister and his areas of responsibility included formulation and implementation of Government policy on Science, Technology and Innovation, Enterprise development, North/South Trade and Business Development programmes and Ireland's involvement in a range of international research and technology programmes involving the European Union and the European Space Agency. Dermot stepped down from the SFI Board when he moved to a new role in the Department of the Taoiseach.

Mr Aidan Donnelly, MD, Advest Management Ltd and Chairman NORA

Mr Aidan Donnelly, is the M.D. of Advest Management Ltd a private equity fund management company. In addition he is Chairman of NORA, the Irish government agency responsible for Ireland's National Oil Reserves and has a number of interests in renewable and environmental start-up companies.

Aidan has extensive experience in the development and management of technology-oriented multinationals in Ireland such as Xerox (Europe) Ltd, Quantum Peripheral Products Ltd, Puritan Bennett, Cabletron Systems, Betdaq (Global Betting Exchange Ltd.) and most recently, ServeCentric Ltd. For over 12 years, Aidan also served in the Irish army, holding the rank of Captain in the Army Ordnance Corp. He earned a M.B.A. (UCG), M.I.E. (UCD) and a B.Sc. (UCG). He is a Chartered Director (C.Dir.) with the IOD.

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

Ms Mary Doyle, Deputy Secretary, Department of Education and Skills, took up her current role in the Department of Education and Skills in June 2012 where she leads the Higher Education Division in the Department. She has worked in the Departments of the Taoiseach, Health, and was Director General in the Office/Department of the Minister for Children and Youth Affairs.

She has been a member of the National Economic and Social Council and the National Statistics Board and a Forum Member of the Economic and Social Research Institute. She holds a degree in European Studies from the University of Limerick and a Masters in Public Service Management from Trinity/Irish Management Institute.

Dr Pat Duane, Global V.P. Operations, Creganna Medical

Pat Duane, BSc MED DBA CEng, is Global V.P. Operations with Creganna Medical and leads the production teams across the six sites in Europe, North America, Central America and Asia. Pat has over 25 years of medical industry experience. Prior to joining Creganna, Pat worked for Medtronic Inc. and held roles in operations, R&D and business development. Pat also worked with AVE and CR Bard. Pat is passionate about innovation and named on over 12 internationally issued patents with other patent filings pending. In 2009, Pat was awarded a Doctorate in Business from Henley Management College, London where his study interest was the integration of technology motivated acquisitions into large corporations. Pat completed a Masters in Engineering Design at University College Dublin in 1996 to complement his BSc. Hons in Applied Physics. He is a chartered member of the Institute of Engineers of Ireland.

Prof Liam Madden, Corporate Vice President, Xilinx Inc.

Prof Liam Madden is corporate vice president of engineering at Xilinx. He leads a world-wide organization of R&D professionals, including teams in Dublin and Cork. Prof Madden has spent more than 30 years in the US semiconductor industry where he has contributed to a range of industry leading products and technologies.

Based in Silicon Valley, he has worked with established companies and start-ups, including a leadership role in a successful IPO. Prof Madden has extensive experience incubating novel technologies, most recently commercializing the industry's first 3-D stacked computer chip. He holds five patents in semiconductor technology. He is a Fellow of Engineers Ireland and in June 2013 was appointed an Adjunct Professor of Electrical, Electronic and Communication Engineering at UCD.

Mr Barry O'Sullivan, CEO, Altocloud

Mr Barry O'Sullivan is CEO of Altocloud, a software company with a mission of improving customer engagement experiences for ecommerce and inside sales. Prior to Altocloud, he was SVP at Cisco Systems and has been General Manager of several multi-billion dollar divisions including Collaboration and Voice over IP, which he led from number six to the number one market share position worldwide. O'Sullivan has spent most of his career in Silicon Valley, joining Cisco in 2002, having previously been General Manager of Nortel's contact centre software business.

He is co-founder of the Irish Technology Leadership Group. He holds a Bachelors Degree in electrical engineering from UCC and a Masters Degree in computer science from the University of Limerick, as well as a Masters degree in business administration from Santa Clara University, California.

Ms Geraldine Ruane, Chief Operating Officer, Trinity College Dublin

Ms Geraldine Ruane has a strong commercial/finance background as a senior executive with 20+ years business and leadership experience in the Pharma, ICT, Manufacturing & Higher Education Sector. Having qualified as an Accountant, Geraldine developed her International business and leadership experience through her roles as Financial Controller/Finance Director & Chief Executive with Upright Ireland, Mallinckrodt Pharmaceutical, Novartis Pharmaceutical, Chanelle Pharmaceutical Group and with Ordnance Survey Ireland.

Known for her consultative management style, she has an impressive track record of leadership, team development, strategic vision and implementation. This has been backed up by her life-long learning on leadership, coaching and mentoring from Harvard, IMD, IOD, IMI and UCD Smurfit Business School. Ms Ruane is currently Chief Operating Officer with Trinity College Dublin.

Executive Team

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

See full profile on page 37.

Mr Donal Keane, Chief Operations Officer

Mr Donal Keane was appointed Chief Operations Officer at SFI with effect from 1 November 2005, with responsibility for Grants, IT, Finance, HR and Facilities. Donal joined SFI from Dun Laoghaire Institute of Art, Design and Technology where he held the position of Secretary/Financial Controller from 1997 to 2005.

Prior to that Keane held senior management positions at Our Lady of Lourdes Hospital Drogheda, GE Capital and Wang Finance in both Dublin and Toronto, Canada. His professional training was undertaken at Coopers & Lybrand from 1978 to 1982. Donal Keane holds a B.Comm degree from University College Dublin and is a Fellow of the Institute of Chartered Accountants in Ireland.

Dr Abigail Ruth Freeman, Director of Strategy and Communications

Dr Abigail Ruth Freeman was appointed as Director of Strategy and Communications in 2013. Prior to her current appointment Dr Freeman has held a series of positions at SFI. Most recently she was the Director of Programmes, Enterprise and International Affairs, with responsibility for overseeing all SFI research funding programmes and management of funded awards, as well as the Foundation's activities in conjunction with industry and international partners. Prior to this, Dr Freeman held roles as both Director of Enterprise and International Affairs and Head of Industry-Research Development. Dr Freeman joined SFI as a Scientific Programme Manager in November 2006.

Prior to joining SFI Dr Freeman was working as a researcher at Trinity College Dublin (TCD). She holds PhD and Bachelor degrees in Genetics from TCD. During her time there as a student she was awarded a Trinity scholarship, the Eli Lilly Chemistry Prize and the Roberts prize for Biology. Dr Freeman's PhD research, on population genetics in hybrid zones, was funded by a prestigious studentship from the Wellcome Trust and was carried out at TCD and ILRI, Nairobi. She was a founding member of the Trinity Research Staff Association; the first Irish association representing contract researchers.

Dr Darrin Morrissey Director of Programmes

Dr Darrin Morrissey was appointed SFI Director of Programmes in September 2014. Darrin joined SFI from Stiefel, a GlaxoSmithKline (GSK)-owned company that develops and manufactures dermatology products. At Stiefel, he held the role of Business Improvement Director and was responsible for leading strategy deployment, change management and business transformation.

Darrin originally joined GSK in 2007 as Head of Oncology for Ireland and led the establishment of GSK's oncology business and the launch of its oncology and haematology therapeutics portfolio. During his time with GSK Darrin also held the role of Global Oncology Marketing Director with responsibility for developing launch strategy for melanoma therapy assets.

Prior to his time with GSK, Darrin worked across a number of pharmaceutical and biotech companies – including Sanofi-aventis, Eli Lilly & Tibotec-Virco – in a variety of commercial and clinical research roles.

Darrin qualified with a BSc in Microbiology and he holds a PhD from University College Cork. His PhD research focused on the molecular mechanisms that underlie cancer metastasis. He also worked as a postdoctoral researcher in UCC, where he conducted 'first-in-human' clinical trials of probiotic bacteria-containing food products.

Darrin also holds a Diploma in Advanced Management Practice awarded by National University of Ireland Galway.

Organisational Structure

SFI BOARD

- Audit Committee
- Corporate Governance Committee
- Grant Approval Committee
- Management Development/Board Nominations Advisory Committee

Ms Kim Lavelle
Board Secretary

Office of Director General
Prof Mark Ferguson
Director General
Science Foundation Ireland

Mr Donal Keane B.Comm, FCA
Chief Operations Officer

- **Ms Joan Hynes** *Finance and Grants Manager*
- **Ms Una Clifford** *HR Manager*
- **Mr Eric Dowdall** *IT Manager*
- **Vacant** *Information Systems Manager*

Dr Ruth Freeman
Director of Strategy
and Communications

- **Dr Peter Clifford** *Manager Performance Improvement Division*
- **Ms Alva O'Clerigh** *Communications Manager*
- **Ms Margie McCarthy** *Head of Public Outreach and Engagement*

Dr Darrin Morrissey
Director of Programmes

- **Dr Lisa Higgins** *Head, Pre-Award*
- **Dr Michael Ryan** *European Affairs Manager*
- **Dr Marion Boland** *Head, Post-Award*

Board's Responsibilities

The Board has collective responsibility to establish the strategic direction of the Foundation within the legislative framework and allocated resources. The Board holds overall responsibility for the discharge of key functions specified in relevant legislation. The Board is responsible to direct and support the Director General to ensure that the Foundation complies with relevant obligations, to assure the Foundation's system of internal financial control and risk management, to ensure full compliance with corporate governance requirements both in terms of the activities of the Foundation and in terms of their own dealings with the Foundation. The Board supervises and approves the production of the Annual Report and Accounts. The Board approves the annual budget, capital and revenue budgets and monitors expenditure. The Board oversees that a qualified management team and a robust management structure are in place.

Chair's Responsibilities

The Chairperson's primary duties are to organise the board and set the agenda for Board meetings, taking into account strategic matters and concerns of Board members and to chair all Board meetings. The Chairperson also ensures that the Board receive accurate, timely and clear information about the Foundation's performance in particular in order that the Board can take sound decisions and monitor effectively. The Chairperson is responsible for ensuring that Board members receive induction and are offered opportunities for development and training so as to best ensure Board effectiveness. The Chairperson takes a lead in establishing the highest standards of corporate governance and ensures compliance with the Code of Practice for the Governance of State Bodies.

Director General's Responsibilities

The functions, powers and duties of the Director General are provided for in the 2003 founding legislation. This sets out inter alia that the Director General is responsible for the development of key divisions of the Foundation including the strategic management of policy, grants, finance, communications and international functions so as to support the development of a high performance organisation.

The Director General is also responsible for the implementation of the Board's plans and policies and the development of strategic plans for the Foundation. The Director General is also charged with the enhancement of the international reputation of SFI and thereby of scientific research in Ireland. The Director General meets with the Minister for Jobs, Enterprise and Innovation as a stakeholder and develops appropriate relationships with sister agencies and other research funding bodies. The Director General submits strategic plans and proposed budgets to the Board and reports to the Board on progress of SFI's development and operations based on the setting of targets and agreement of key performance indicators. The Director General is also responsible for ensuring the Foundation has appropriate policies on staffing, corporate governance, procurement, compliance, IT, communications and risk management and monitors adherence to the policies. In terms of development, the Director General ensures that policies on growth and service diversification is effectively planned and implemented.

Board Secretary's Responsibilities

The Board Secretary is responsible to the Foundation for good governance and for the guidance of the Board in its effective execution of its tasks. The Board Secretary keeps up to date with relevant legal, statutory and regulatory requirements and must also be in a position to support non-executive Board members in the discharge of their duties. The Board Secretary is responsible for ensuring the appointment of Board members is properly carried out and assists with induction and training of Board members. The Board Secretary organises Board and Board Committee meetings, facilitates the flow of high quality information to Board members to ensure the Board can carry out its duties effectively and to ensure that the Board's decisions and instructions are properly communicated and carried out. The Board Secretary is responsible for reviewing developments in Corporate Governance, Ethics, ensuring compliance with the Code of Practice for the Governance of State Bodies and for ensuring that the principles of good governance are adhered to.

Induction and Professional Development

An Induction Session for new Board members was held on 14 February 2014. In addition, a number of Board members attended training sessions delivered by the Institute of Directors.

Board Meetings

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. 6 scheduled SFI Board meetings were held in 2014 as follows:

Date	Venue	Number of Attendees
03 February 2014	Board Room, Wilton Park House	**12/12**
07 April 2014	Western Gateway Building, UCC	**11/12**
09 June 2014	Board Room, Wilton Park House	**10/12**
08 September 2014	Board Room, Wilton Park House	**9/10**
20 October 2014	Print Works, Dublin Castle	**8/10**
16 December 2014	Board Room, Wilton Park House	**11/12**

Board Members 2014

Name of Director	Attendance at Board Meetings (6 meetings)
Ann Riordan (Chairman)	6 out of 6
Sean Aherne**	3 out of 3
Tom Blundell*	0 out of 1
Rita Colwell	6 out of 6
Bernie Cullinan	5 out of 6
Dermot Curran	5 out of 6
Aidan Donnelly	6 out of 6
Mary Doyle	5 out of 6
Pat Duane	4 out of 6
Mark Ferguson	6 out of 6
Peter MacDonagh**	3 out of 3
Liam Madden	5 out of 6
Barry O'Sullivan*	1 out of 1
Geraldine Ruane	6 out of 6

** Appointed to the Board on 19 November 2014*
*** Retired 25 July 2014*

Board Committees

Corporate Governance Committee

The key role for this Committee is to review SFI's corporate governance structure and core governance documents; the Committee also has responsibility for setting objectives for improving Board and Committee effectiveness and to review codes of ethics for executives, employees and Board members. It is also a key objective of the Committee to achieve external assessment of the governance of the organization through SWIFT 3000.

Number of meetings: Three meetings held.
Chair: Aidan Donnelly
Membership: Ann Riordan and Mary Doyle

Corporate Governance committee	2014
Ann Riordan	3 out of 3
Aidan Donnelly	3 out of 3
Mary Doyle	2 out of 3

Audit & Risk Committee

The Audit Committee monitors the system of internal controls and financial safeguards, oversees the internal audit function and the conduct of audits of SFI grants made to external institutions. The Committee ensures a system to monitor risk and provide for mitigating actions is in place and kept up-to-date. The Committee also monitors and reviews SFI financial reports on a regular basis including the Annual Financial Statements.

Number of meetings: Six meetings held.
Chair: Bernie Cullinan,
Membership: Geraldine Ruane, Pat Duane and Brian Dalton

Audit & Risk Committee	2014
Bernie Cullinan	6 out of 6
Pat Duane	2 out of 6
Brian Dalton**	2 out of 2
Geraldine Ruane	4 out of 4
Aidan Hodson*	4 out of 4
Sean Aherne*	3 out of 3

*** Representative as of November 2014*
** Retired during 2014*

Management Development/Board Nominations Advisory Committee

The Management Development/Board Nominations Advisory Committee considers the skill sets required on the SFI Board as well as relevant areas of expertise and advises the Minister of Enterprise, Jobs and Innovation accordingly when Board vacancies arise. The Committee also reviews the performance of the senior management team and planning for management development and succession.

Number of meetings: One meeting held
Chair: Ann Riordan
Membership: Dermot Curran

Management Development/ Nominations Advisory Committee	2014
Ann Riordan	1 out of 1
Dermot Curran	1 out of 1

Grant Approval Committee

The SFI Grant Approval Committee is delegated the power to approve research grant proposals in line with the delegated authority levels approved by the Board.

Number of meetings: One physical and five virtual meetings held
Chair: Liam Madden
Membership: Rita Colwell, Mark Ferguson and Martin Lyes

Grant Approvals Committee	2014
Liam Madden*	5 out 6
Mark Ferguson	6 out 6
Rita Colwell	5 out 6
Martin Lyes	6 out 6
Peter McDonagh**	4 out 4

** Due to conflict of interest.*

*** Chairperson until retirement on 25th July 2014, (replaced as Chair by Liam Madden).*

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, Freedom of Information (Amendment) Act, 2003 and Freedom of Information Act 2014

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 on 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.

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.

Annual Financial Statements

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 2014 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 2014 and of its income and expenditure for 2014.

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
23 June 2015

Statement of Board Members' Responsibilities

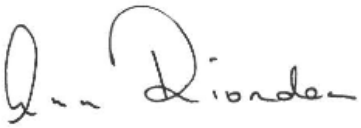
For 2014 Annual Financial Statements

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: June 10th 2015

Prof Mark Ferguson
Director General

Date: June 10th 2015

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 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 2014.

Signed on behalf of the Board.

Ms Ann Riordan
Chairman

Date: June 10th 2015

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 5).

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) Pensions

The Income and Expenditure account, Statement of Recognised Gains and Losses and Balance Sheet recognise pension transactions, movements and balances in accordance with the requirements of Financial Reporting Standard 17, Retirement Benefits.

The Industrial Development (Forfás Dissolution) Act 2014 (No 13 of 2014) which was passed into law on 16th July 2014 made provision for the dissolution of Forfás and provided for the establishment of Science Foundation Ireland as a separate legal employer. Under the legislation:

- Science Foundation Ireland is responsible for the establishment of its own pension scheme
- SFI Staff who were members of the Forfás Pensions scheme join the new scheme on superannuation terms no less favourable than those they enjoyed under the Forfás scheme immediately before the date of transfer.
- SFI is responsible for the pensions of staff who retire after 16th July 2014
- The Department of Jobs, Enterprise and Innovation assumes legal responsibility for the existing Forfás pension scheme and existing SFI pensioners and former staff with preserved benefits.
- Employee pension contributions are paid to the Exchequer.

SFI also operates the Single Public Services Pension Scheme (Single Scheme), which is the defined benefit pension scheme for pensionable public servants appointed on or after 1 January 2013. Single Scheme members' contributions are paid over to the Department of Public Expenditure and Reform.

Pension costs reflect pension benefits earned by employees in the period and are paid to the Department of Jobs, Enterprise and Innovation and the Department of Public Expenditure and Reform. An amount corresponding to the pension charge is recognised as income to the extent that it is recoverable.

Actuarial gains and losses arising on scheme liabilities are reflected in the Statement of Total Recognised Gains and Losses and a corresponding adjustment is recognised in the amount recoverable from the Department of Jobs, Enterprise and Innovation.

Pension liabilities represent the present value of future pension payments earned by staff to-date. Deferred pension funding represents the corresponding asset to be recovered in future periods from the Department of Jobs, Enterprise and Innovation. Pension scheme liabilities' are measured on an actuarial basis using the projected unit method.

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.

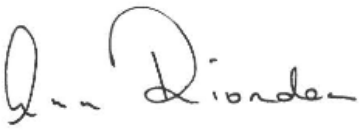
Income and Expenditure Account

For the year ended 31 December 2014

	Notes	2014 €'000	2013 €'000
Income			
Oireachtas Grant	1	**162,365**	161,550
Other Income	2	**590**	247
Deferred Pension Funding	7(d)	**476**	-
		163,431	161,797
Expenditure			
Pay	3	**3,653**	3,866
Administration Expenses	4(a)	**5,247**	5,315
Depreciation	5	**247**	237
Pension Costs	7(b)	**401**	-
Grants	6(a)	**153,905**	152,310
		163,453	161,728
Operating (Deficit) Surplus for the Year		**(22)**	69
Balance at beginning of Year		**758**	552
Transfer from Capital Account	8	**151**	137
Accumulated Surplus at end of Year		**887**	758

The Accounting Policies, Cash Flow Statement and Notes 1 to 15 form part of these Financial Statements.

On behalf of the Board:



Ms Ann Riordan
Chairman

Date: June 10th 2015

Prof Mark Ferguson
Director General

Date: June 10th 2015

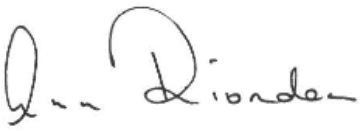
Statement of Total Recognised Gains and Losses

For the year ended 31 December 2014

	Notes	**2014** **€'000**	2013 €'000
Surplus/(Deficit) for Year		**(22)**	69
Experience gains on pension scheme liabilities		**164**	-
Change in assumptions underlying the present value of pension scheme liabilities		**(126)**	-
Total Actuarial Gain in the period		**38**	-
Adjustment to Deferred Pension Funding arising from total Actuarial Gain in the period		**(38)**	-
Total Recognised (Loss) / Gain for the Year		**(22)**	69

The Accounting Policies, Cash Flow Statement and Notes 1 to 15 form part of these Financial Statements.

On behalf of the Board:



Ms Ann Riordan
Chairman

Date: June 10th 2015

Prof Mark Ferguson
Director General

Date: June 10th 2015

Balance Sheet

As at 31 December 2014

	Notes	2014 €'000	2013 €'000
Fixed Assets			
Tangible Fixed Assets	5	**98**	249
Current Assets			
Cash at Bank		**752**	588
Debtors and Prepayments	9	**453**	384
		1,205	972
Creditors and Accruals	10	**318**	214
Net Current Assets		887	758
Deferred Pension Funding Asset	7(d)	**7,873**	-
Pension Liability	7(c)	**(7,873)**	-
		-	-
Net Assets		**985**	1,007
Represented By:			
Capital Account	8	**98**	249
Accumulated Surplus at end of Year		**887**	758
		985	1,007

The Accounting Policies, Cash Flow Statement and Notes 1 to 15 form part of these Financial Statements.

On behalf of the Board:

Ms Ann Riordan
Chairman

Date: June 10th 2015

Prof Mark Ferguson
Director General

Date: June 10th 2015

Cash Flow Statement

For the year ended 31 December 2014

	Notes	**2014 €'000**	2013 €'000
Reconciliation of Surplus for Year to Net Cash Flow from Operations			
Total Recognised (Loss) / Gain for the Year		**(22)**	69
Bank Interest	2	**-**	(2)
Depreciation Charge	5	**247**	237
(Increase) in Debtors and Prepayments	9	**(69)**	(35)
Increase / (Decrease) in Creditors and Accruals	10	**104**	(139)
Net Cash Flow from Operations		**260**	130
Cash Flow Statement			
Net Cash Flow from Operations		**260**	130
Returns on Investment and Servicing of Finance			
- Bank Interest	2	**-**	2
Cash Flow before Capital Expenditure		**260**	132
Capital Funding			
Purchase of Tangible Fixed Assets	5	**(96)**	(100)
Increase in Cash		**164**	32
Reconciliation of Increase in Cash to Cash at Bank			
Movement in Cash for the Year		**164**	32
Cash at Bank at 01 January		**588**	556
Cash at Bank at 31 December		**752**	588

Notes to the Accounts

For the year ended 31 December 2014

1 Oireachtas Grant

(a) Science Foundation Ireland

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

		2014 €'000	2013 €'000
Pay - Note 1*	Subhead B.4.2	**3,725**	4,050
Administration Expenses	Subhead B.4.2	**5,100**	5,200
Research Grants	Subhead B.4.2	**153,540**	152,300
		162,365	161,550

*Note 1 - The 2014 Pay Allocation is stated net of employee pension contributions of €75,000 remitted to the Exchequer.

(b) 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 Enterprise Ireland, IDA and Science Foundation Ireland to enable them to discharge their Capital obligations and liabilities shall not exceed €7,000,000,000. At 31 December, 2014 the aggregate amount made available to the three Agencies was €5.190 billion (2013 - €4.907 billion).

2 Other Income

(a) Research Grant Funding:

	2014 €'000	2013 €'000
Teagasc [Note (i)]	**361**	-
Health Research Board - Co Fund US/Ireland R & D Partnership	**4**	10
Total Grant Co funding	**365**	10
Joint Programming Initiative - EU funded Conference held in March 2013 in Dublin Castle	**-**	115
Other	**6**	-
European Space Agency [Note (ii)]	**120**	120
NanoSciE+ [Note (iii)]	**99**	-
Bank Interest	**-**	2
Total	**590**	247

(i) Contribution from Teagasc for 50% co-funding of two awards made by SFI in 2014 under the 2013 IVP Programme.

Contributions received under Grant Co-Funding for Teagasc and Health Research Board are included in Total Grant payments expended in 2014 of €153,904,579

(ii) 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.

(iii) EU Nano Science E+ Collaborative Research Call - income represents final payment due from EU in relation to this programme.

Notes to the Accounts

For the year ended 31 December 2014

3 Pay

	2014 €'000	2013 €'000
Pay Costs comprise:		
Wages and Salaries	**3,341**	3,587
Social Welfare Costs	**310**	274
Superannuation Costs	**2**	5
Total	**3,653**	3,866
Sanctioned Positions	**49**	49
Actual employed	**49**	49

Science Foundation Ireland deducted pension levies from staff of €234,179 (2013: €236,155) which were paid over to the Department of Jobs, Enterprise and Innovation.

The Director General's salary for the year was €175,554 (2013: €182,334) and standard public sector pension arrangements apply. No performance related bonus was applicable. Prof. Ferguson is also Chief Scientific Adviser (CSA) 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 €34,505, of which €7,827 related to CSA activities.

4 (a) Administration Expenses

	2014 €'000	2013 €'000
Board Members' Remuneration and Expenses - (see 4 (b) below)	**136**	128
Programme Management	**864**	743
Facilities	**930**	939
Professional Fees	**127**	95
Legal Fees*	**122**	95
Support Services	**489**	312
Public Engagement	**183**	189
Publications and On Line Content	**120**	216
Events and Partnerships	**1,324**	1,618
IT Support & Infrastructure	**489**	481
Travel & Subsistence Costs	**144**	110
HR Management**	**171**	194
Office Furniture & Equipment	**6**	14
General Office Expenses	**117**	157
Audit Fee	**25**	24
Total	**5,247**	5,315

The Discover programme (fomerly Discover Science & Engineering) was taken over from Forfás by Science Foundation Ireland in 2012. The programme, which originally had a separate Oireachtas Grant, has now been fully incorporated into the Science Foundation Ireland allocation and prior year figures for 2013 have been reanalysed across Support Services, Publications and Online Content, Events and Partnerships, IT Support and Infrastructure and Travel and Subsistence Costs as appropriate to reflect this change.

* Legal Fees include an amount of €62,923 (2013: €74,595) in relation to legal advice in respect of an anonymous campaign of harassment against certain senior staff members on a small number of internet "blog sites", and by unsolicited e-mails and postings on twitter. The advice related to identifying the source of the offensive material, the possibility of instigating civil or criminal proceedings and how best to prevent further publication. Discussions with the legal Advisers are on-going.

** Staff related expenditure of €3,934 (2013: €2,967) is included in the HR Management figure.

Notes to the Accounts

For the year ended 31 December 2014

4 (b) Board Remuneration and Expenses

			2014	2013
			€	€
Board Remuneration				
Board Members				
Ann Riordan (Chairman)	Appointed on 5 December 2013		**20,534**	1,476
Patrick Fottrell (Outgoing Chairman)	Retired on 25 July 2013		**-**	11,970
Sir Tom Blundell	Appointed on 19 November 2014	UK Based	**-**	-
Barry O Sullivan	Appointed on 19 November 2014	US Based	**-**	-
Mark Ferguson			**-**	-
Sean Ahearne	Retired on 25 July 2014		**6,789**	11,970
Rita Colwell		US Based	**11,970**	11,970
Bernie Cullinan			**11,970**	11,970
Peter MacDonagh	Retired on 25 July 2014	EU Based	**6,789**	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		**11,979**	860
Aidan Donnelly	Appointed on 5 December 2013		**11,979**	860
Martina Newell McGloughlin	Retired on 25 July 2013	US Based	**-**	6,982
James Mountjoy	Retired on 25 July 2013		**-**	6,982
			93,980	88,980
Board Members Expenses				
Ann Riordan (Chairman)	Appointed on 5 December 2013		**920**	-
Sir Tom Blundell	Appointed on 19 November 2014	UK Based	**-**	-
Barry O Sullivan	Appointed on 19 November 2014	US Based	-	-
Mark Ferguson			**-**	-
Sean Ahearne	Retired on 25 July 2014		**-**	-
Rita Colwell		US Based	**18,465**	20,433
Bernie Cullinan			**350**	741
Peter MacDonagh	Retired on 25 July 2014	EU based	**1,171**	-
Pat Duane			**170**	-
Dermot Curran			**298**	-
Mary Doyle			**-**	-
Liam Madden	Appointed on 1 February 2013	US Based	**10,441**	-
Geraldine Ruane	Appointed on 5 December 2013		**318**	-
Aidan Donnelly	Appointed on 5 December 2013		**350**	-
Martina Newell McGloughlin	Retired on 25 July 2013	US Based	**-**	11,980
James Mountjoy	Retired on 25 July 2013		**-**	-
General Board Expenses			**9,101**	3,364
			135,564	127,830

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 two US Board members, Prof. Liam Madden and Mr Barry O'Sullivan, have waived their Board fees.

General Board expenses for 2014 include accomodation and meal costs for Board meetings held off site.

General Board expenses for 2013 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 2014

5 Tangible Fixed Assets

	Computer Equipment €'000	Computer Software €'000	Fixtures & Fittings €'000	**Total €'000**
Cost				
At 1 January 2014	690	558	184	**1,432**
Additions	73	23	-	**96**
Disposals	(84)	-	(68)	**(152)**
At 31 December 2014	679	581	116	**1,376**
Depreciation				
At 1 January 2014	634	365	184	**1,183**
Charge for Year	53	194	-	**247**
Disposals	(84)	-	(68)	**(152)**
At 31 December 2014	603	559	116	**1,278**
Net Book Amount				
At 1 January 2014	56	193	-	**249**
Net Movement for Year	20	(171)	-	**(151)**
At 31 December 2014	76	22	-	**98**

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 2014

6 Grants

		2014 €'000	2013 €'000
(a)	**Analysis of Grants Paid**		
	Agriculture	**1,258**	753
	Astronomy	**105**	169
	Biochemistry	**3,488**	3,930
	Biomedicine	**19,775**	12,615
	Chemistry	**11,018**	14,884
	Computational & Mathematical Biology	**1,476**	14,272
	Computer & Information Sciences	**31,821**	8,490
	Earth & Environmental Sciences	**7,459**	1,263
	Energy	**4,646**	11,036
	Engineering	**7,690**	9,483
	Food Science	**146**	112
	General	**2**	-
	Genetics & Genomics	**4,139**	3,964
	Immunity & Infection	**5,470**	6,973
	Materials Science	**5,289**	13,416
	Mathematics	**3,050**	2,695
	Microbiology	**3,979**	11,448
	Molecular & Cell Biology	**10,876**	12,135
	Multidisciplinary	**341**	86
	Networking & Communications Systems	**17,154**	7,844
	Neuroscience & Behaviour	**3,448**	2,652
	Physics	**8,133**	9,383
	Outreach activities	**3,142**	138
	Strategic Funds	**-**	4,569
	Total	**153,905**	152,310

The Grant payments are categorised into Primary Research areas used by SFI to monitor research funding.

(b)	**Grant Commitments**		
	Outstanding Grant Commitments as at 01 January	**343,241**	205,330
	Grants Approved during the year	**273,950**	297,194
	Decommitments during the year	**(2,785)**	(6,973)
	Grant Payments made in the year	**(153,905)**	(152,310)
	Amounts received from Teagasc for co-funding of two IVP awards made in 2014 - see Note 2(a)	**361**	-
	Outstanding Commitments as at 31 December	**460,862**	343,241

Notes to the Accounts

For the year ended 31 December 2014

7 Pensions

(a) Pension Scheme

Science Foundation Ireland has responsibility for the pension costs of:

1. staff with effect from 16th July 2014, under the Industrial Development (Forfás Dissolution Act 2014). Staff who are/were members of the Forfás Pension Scheme joined the new Science Foundation Ireland pension scheme on superannuation terms no less favourable than those they enjoyed under the Forfás scheme immediately before the date of transfer from Forfás to SFI.
2. staff who are members of the Single Public Service pension scheme.

Both schemes are defined benefit pension schemes and are fully funded annually on a pay as you go basis from monies provided by the Department of Jobs, Enterprise and Innovation.

(b) Analysis of Total Pension Charge

	2014 €'000	2013 €'000
Current Service Cost	**356**	-
Interest on Pension Scheme Liabilities	**120**	-
Employee Pension Contributions	**(75)**	-
	401	-

(c) Change in Pension Schemes' liabilities

	2014 €'000	2013 €'000
Transfer from Forfás	**7,435**	-
Current service Cost	**356**	-
Interest Costs	**120**	-
Payments to Pensioners	**-**	-
Actuarial (Gain) / Loss	**(38)**	-
Present Value of Schemes' Obligations at 31 December	**7,873**	-

(d) Net Deferred Funding for Pensions in Year

	2014 €'000	2013 €'000
Funding recoverable in respect of Current Year pension costs	**476**	-
Funding to pay Pensions	**-**	-
	476	-

SFI recognises as an asset an amount corresponding to the unfunded deferred liability for pensions on the basis of the set of assumptions described below and a number of past events. These events include the statutory basis for the establishment of the superannuation schemes, and the policy and practices currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. SFI has no evidence that this funding policy will not continue to meet such sums in accordance with current practice.

The Deferred Funding asset for pensions at 31 December 2014 amounted to €7.873m.

Notes to the Accounts

For the year ended 31 December 2014

7 Pensions continued

(e) Assumptions used in Actuarial Valuation of the SFI superannuation scheme

Liabilities shown in the Financial Accounts are computed using the Projected Unit Credit method.

	2014	2013
Financial Assumptions		
Discount Rate	**2.50% p.a.***	-
Future Salary Increases	**2.75% p.a.**	-
Future State Pension increases	**2.75% p.a.**	-
Future Pension Increases	**2.25% p.a.**	-
Future inflation	**1.25% p.a.**	-
Revaluation in deferment	**2.25% p.a.**	-

* discount rate reflects a duration of liabilities of approximately 32 years.

Demographic Assumptions		
Mortality pre-Retirement	**62% PNMLOO (Males)**	-
	70%PNFLOO (Females)	-
Mortality post-Retirement	**58% ILT15 (Males)**	-
	62% ILT15 (Females)	-
Retirement age		
New entrants	**Age 65**	-
Other members	**Age 62**	-

The Mortality basis explicitly allows for improvements in life expectancy over time, so that life expectancy at retirement will depend on the year in which a member attains retirement age (age 65). The table below shows the life expectancy for members attaining age 65 in 2014 and 2034.

Year of attaining age 65	**2014**	2034
Life expectancy - Male	**20.8**	23.3
Life expectancy - Female	**23.4**	25.5

(f) Prior Year Comparatives

Year ending December 31st	**2014**	2013	2012	2011	2010
Closing pension liability	7,873	-	-	-	-
Experience (loss) / gain arising on the plan Liabilities	164	-	-	-	-
% Liabilities	2.1%	-	-	-	-
Total (loss) / Gain recognised in Statement of Total Recognised Gains & losses	38	-	-	-	-
% Liabilities	0.5%	-	-	-	-

Notes to the Accounts

For the year ended 31 December 2014

8 Capital Account

	2014 €'000	2013 €'000
At 1 January	**249**	386
Transfer from Income & Expenditure Account		
- To fund Fixed Asset acquisitions	**96**	100
- Amount released on disposal of fixed assets	**-**	-
- Amortised in line with asset depreciation	**(247)**	(237)
Net Movement	**(151)**	(137)
At 31 December	**98**	249

9 Debtors and Prepayments

	2014 €'000	2013 €'000
General Debtors	**150**	53
Prepayments	**303**	331
Total	**453**	384

10 Creditors and Accruals

	2014 €'000	2013 €'000
General Creditors	**175**	21
Accruals	**73**	150
Interagency Balance - IDA*	**70**	41
Interagency Balance - Forfás*	**-**	2
Total	**318**	214

*Interagency Balances relate to the balances owed by Science Foundation Ireland to IDA at 31 December 2014, being the difference between the amount of money paid to IDA by Science Foundation Ireland and the actual money spent by IDA on behalf of Science Foundation Ireland. In 2013 a balance was also owed to Forfas for the same reason.

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.

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.

Notes to the Accounts

For the year ended 31 December 2014

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 Approval of Financial Statements

The Financial Statements were approved by the Board of Science Foundation Ireland on June 10th 2015.

Grant Commitments and Payments Analysis 2014

2014 Payments by Programme	
	€'000
Investigators	46,631,840
Research Centres	44,926,089
Centres for Science Engineering & Technology (CSET)	25,006,589
Technological Innovation Development Award (TIDA)	7,127,428
Strategic Research Centres (SRC)	5,620,011
Starting Investigator Research Grant (SIRG)	5,042,623
Career Development Award	3,451,219
Research Frontiers Programme	3,015,893
SFI Discover Programme	2,047,520
President of Ireland Young Researcher Award (PIYRA)	1,202,891
STOKES - Professor & Lectureship Programme	963,041
Research Professorship Programme	957,539
Advance Award Programme	895,640
US Ireland R&D Partnership	878,147
European Research Council Development Award	805,869
Internship Programme	716,569
Centres	650,000
SFI-Pfizer Biotherapeutics Innovation Award Programme	645,044
Research Centres - Spokes Awards	620,075
European Research Council Support Programme	436,399
SFI / Irish Research Council - Postgraduate Scholarship Scheme	413,183
Translational Research Awards	316,470
Strategic Partnership Programme	250,839
Conference & Workshop	243,228
Maths Initiative	233,059
HRB/Wellcome Trust awards	196,330
EU Joint Programme Initiative	147,952
Engineering - Professorship & Lectureship Programme	133,228
Industry Fellowship Awards	125,385
Charles Parsons Energy Research Awards	107,381
SFI/Irish Universities Association (IUA) Partnership	90,000
Joint Programming Initiatives	75,701
Walton programme	15,832
US-Ireland R&D Partnership Planning Grant	8,221
Research Infrastructure awards	-1,384
Supplements	-3,216
Short Term Travel Fellowship	-12,219
International Strategic Cooperation Award	-75,836
Grand Total	**153,904,579**

2014 Payments by Institution	
	€'000
Trinity College Dublin	48,684,222
University College Dublin	26,134,710
National University of Ireland, Galway	19,030,356
University of Limerick	16,840,402
Dublin City University	11,111,144
University College Cork	11,096,222
Tyndall National Institute	6,818,230
National University of Ireland, Maynooth	4,196,829
Royal College of Surgeons in Ireland	3,502,295
Teagasc	1,357,439
Dublin Institute for Advanced Studies	844,759
The National Institute for Bioprocessing Research and Training (NIBRT)	594,738
Health Research Board	512,800
Cork Institute of Technology	498,696
Dublin Institute of Technology	421,773
Irish Research Council	413,183
Stop.watch television Ltd.	203,400
Institute of Technology Tallaght	180,966
ICS Skills	130,000
Galway Education Centre	129,000
Royal Dublin Society RDS	122,750
Queen's University Belfast	107,381
The Irish Universities Association	90,000
Institute of Technology Sligo	84,481
St. Patrick's Day Festival	77,464
Waterford Institute of Technology	77,268
Athlone Institute of Technology	72,597
Dundalk Institute of Technology	60,084
Kite Entertainment	54,000
Cork Electronics Industry Association (CEIA)	43,200
CoderDojo Foundation	43,125
Rough Magic	37,624
Brigit's Garden	31,595
British Council Ireland	29,404
Ballyhoura Development Ltd.	28,386
Atlantic Corridor	28,100
Gallomanor Communications Limited	27,000
Cork City Council	25,000
Galway Science & Technology Forum	25,000
Scouting Ireland	21,870
The Rediscovery Centre Ltd	20,588
Galway City Museum	18,000
Learning Hub Limerick	13,500
Lifetime Lab	13,000
Baboro	10,300
Galway Atlanaquaria	10,000
May County Council	10,000
True Films	10,000
Project Arts Centre	9,000
Royal Irish Academy	2,700
Grand Total	**153,904,579**

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).

EUROPEAN REGIONAL DEVELOPMENT FUND

2014 Grant Commitments by Programme

	€'000
Research Centres	164,002,935
Investigator Programme	51,163,274
Career Development Award	13,515,482
Starting Investigator Research Grant (SIRG)	9,620,211
Technological Innovation Development Award (TIDA)	7,554,343
Research Professorship Programme	6,220,815
Research Centres - Spokes Awards	5,835,716
SFI-Pfizer Biotherapeutics Innovation Award Programme	2,475,561
SFI Discover Programme	2,215,599
US Ireland R&D Partnership	2,034,284
Advance Award Programme	1,741,210
Strategic Partnership Programme	1,328,050
European Research Council Development Award	1,139,207
SFI/Irish Research Council - Postgraduate Scholarship Scheme	1,022,409
EU Joint Programme Initiative	871,285
Internship Programme	577,348
Translational Research Awards	525,735
European Research Council Support Programme	484,888
Industry Fellowship Awards	482,621
SFI/Irish Universities Association (IUA) Partnership	450,000
SFI-HRB-Wellcome Trust Biomedical Research Partnership	374,893
Conference & Workshop	307,049
US-Ireland R&D Partnership Planning Grant	7,619
Grand Total	**273,950,533**

2014 Number of Awards by Programme

SFI Discover Programme	73
Technological Innovation Development Award (TIDA)	64
Conference & Workshop	43
Investigator Programme	42
Career Development Award	22
Starting Investigator Research Grant (SIRG)	19
SFI Research Centres Supplement awards	16
Advance Award Programme	10
Industry Fellowship	7
SFI/Irish Research Council - Postgraduate Scholarship Scheme	5
SFI Research Centres	5
SFI-Pfizer Biotherapeutics Innovation Award Programme 2014	5
US Ireland R&D Partnership	5
EU Joint Programme Initiative	4
SFI Internship	4
Research Centres - Spokes Awards	4
US-Ireland R&D Partnership Planning Grant	3
European Research Council Development Award	2
European Research Council Support Programme	2
SFI-HRB-Wellcome Trust Biomedical Research Partnership	2
Strategic Partnership Programme	2
Research Professorship Programme	1
Research projects Grant scheme Strand 6	1
SFI/IUA Partnership	1
Translational Research Awards	1
Grand Total	**343**

2014 Number of Awards by Institution

Trinity College Dublin	59
University College Dublin	43
National University of Ireland, Galway	36
Dublin City University	35
University College Cork	34
Tyndall National Institute	21
University of Limerick	21
Royal College of Surgeons in Ireland	15
National University of Ireland, Maynooth	13
Teagasc	7
Irish Research Council	6
Waterford Institute of Technology	4
Cork Institute of Technology	3
Dublin Institute for Advanced Studies	3
Dublin Institute of Technology	3
Health Research Board	3
The National Institute for Bioprocessing Research and Training (NIBRT)	3
Atlantic Corridor	2
British Council Ireland	2
Gallomanor Communications Limited	2
Galway Education Centre	2
ICS Skills	2
St. Patrick's Day Festival	2
Athlone Institute of Technology	1
Baboro	1
Ballyhoura Development Ltd.	1
Brigit's Garden	1
CoderDojo Foundation	1
Cork City Council	1
Cork Electronics Industry Association (CEIA)	1
Galway Atlanaquaria	1
Galway City Museum	1
Galway Science & Technology Forum	1
Kite Entertainment	1
Learning Hub Limerick	1
Lifetime Lab	1
May County Council	1
Project Arts Centre	1
Rough Magic	1
Royal Dublin Society RDS	1
Scouting Ireland	1
Stop.watch television Ltd.	1
The Irish Universities Association	1
The Rediscovery Centre Ltd	1
True Films	1
Grand Total	**343**

List of SFI awards made in 2014

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Dr John O'Donoghue & Dr Mark Ledwidge	US-Ireland R&D Partnership Planning Grant	Cloud based Electronic integrAtion of Patient Records (CLEAR)	University College Cork	3,184.00
Prof. Kingston Mills	TIDA - Fast Track	Helminth-derived immunomodulatory molecules as therapeutics for immune-mediated disease	Trinity College Dublin	128,302.00
Prof. Thomas Ray	ERC Development	Ejection Accretion Structures in YSOs (EASY)	Dublin Institute for Advanced Studies	647,564.00
Ms Edelle Moss	SFI Discover Programme Strategic Projects Call 2013	SFI Discover Science Zone at the Festival Big Day Out	St. Patrick's Day Festival	40,830.00
Dr Eavan O'Brien	Research projects Grant scheme Strand 6		Irish Research Council	336,395.00
Dr Donal Leech	US Ireland R&D Partnership	Protein Biomarker Arrays for Personalized Treatment of Prostate Cancer	National University of Ireland, Galway	318,718.40
Dr Thomas Cerqueus	Conference & Workshop	International Workshop on Large-Scale Testing (LT2014)	University College Dublin	1,260.00
Prof. Cormac Taylor	Conference & Workshop	Keystone Symposium: "Hypoxia; from basic mechanisms to therapeutics"	University College Dublin	34,800.00
Prof. Michael Bruen	Conference & Workshop	Dooge Nash International Symposium/Workshop and Hydrology Master-classes 2014	University College Dublin	6,500.00
Prof. Paul Townsend	SFI Research Centres Supplement	I-PIC Irish Photonic Integration Research Centre - EU Grant Manager	Tyndall National Institute	562,307.20
Prof. Fergus Shanahan	SFI Research Centres Supplement	Alimentary Pharmabiotic Centre (APC) - Interfacing Food & Medicine - EU Grant Manager	University College Cork	562,307.20
Prof. Lousie Kenny	SFI Research Centres Supplement	Irish Centre for Fetal and Neonatal Translational Research (INFANT) - EU Grant Manager	University College Cork	562,307.20
Prof. Stefano Sanvito	SFI Research Centres Supplement	Advanced Materials and BioEngineering Research Centre (AMBER) EU Grant Manager	Trinity College Dublin	562,307.20
Prof. Conchur O'Bradaigh	SFI Research Centres Supplement	Marine Renewable Energy Ireland (MaREI) EU Grant Manager	University College Cork	562,307.20
Prof. Kieran Hodnett	SFI Research Centres Supplement	Synthesis and Solid State Pharmaceutical Centre (SSPC) EU Grant Manager	University of Limerick	562,307.20
Prof. Barry Smyth	SFI Research Centres Supplement	INSIGHT - Irelands Big Data and Analytics Research Centre - EU Grant Manager	University College Dublin	1,748,614.40
Mr Colm O'Reilly	SFI Discover Programme Projects Call 2013	Centre for Academic Advancement	Dublin City University	20,000.00
Prof. John O'Donoghue	SFI Discover Programme Projects Call 2013	Munster Regional Festival of Science and Mathematics	University of Limerick	8,000.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Prof. John O'Donoghue	SFI Discover Programme Projects Call 2013	North Munster and Region Maths Week 2014	University of Limerick	3,000.00
Dr Catherine Buckley	SFI Discover Programme Projects Call 2013	Debating Science Issues - National Semi-Finals and Finals	University College Cork	4,260.00
Mr Marc McCarthy	SFI Discover Programme Projects Call 2013	My Gut Feeling	University College Cork	10,000.00
Dr Aoibheann Bird	SFI Discover Programme Projects Call 2013	Thesis in 3 (Tin3) 2014	University College Dublin	7,750.00
Prof. Emma Teeling	SFI Discover Programme Projects Call 2013	Ecology and Evolution In Action: Lessons from Bats	University College Dublin	6,000.00
Dr Fiona Doohan	SFI Discover Programme Projects Call 2013	Earth Festival - Science through Art: A collaborative learning experience	University College Dublin	15,000.00
Ms Mary Dempsey	SFI Discover Programme Projects Call 2013	Youth Academy STEM	National University of Ireland, Galway	15,000.00
Dr Muriel Grenon	SFI Discover Programme Projects Call 2013	Cell Explorers	National University of Ireland, Galway	35,000.00
Dr Sheila Donegan	SFI Discover Programme Projects Call 2013	Robert Boyle Science Week	Waterford Institute of Technology	16,000.00
Dr Sheila Donegan	SFI Discover Programme Projects Call 2013	Bealtaine Festival	Waterford Institute of Technology	4,000.00
Dr Tomas Ward	SFI Discover Programme Projects Call 2013	Maker Ireland - The Irish Maker Festival	National University of Ireland, Maynooth	17,000.00
Dr Rudi Villing	SFI Discover Programme Projects Call 2013	A scalable portable humanoid robot soccer exhibition platform	National University of Ireland, Maynooth	9,500.00
Dr Ria O'Sullivan	SFI Discover Programme Projects Call 2013	Project TARA	Cork Institute of Technology	35,000.00
Dr Anca Mustata	SFI Discover Programme Projects Call 2013	The Maths Circles Initiative	University College Cork	22,000.00
Ms Jackie Gorman	SFI Discover Programme Projects Call 2013	Midlands Science Festival 2014	Atlantic Corridor	20,000.00
Mr Tom Hyland	SFI Discover Programme Projects Call 2013	Galway Science & Technology Festival	Galway Science & Technology Forum	25,000.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Mr Pat McHale	SFI Discover Programme Projects Call 2013	Mayo Science & Technology Festival	May County Council	10,000.00
Dr Noirin Burke	SFI Discover Programme Projects Call 2013	Explorers Education Programme	Galway Atlanaquaria	10,000.00
Mr Mervn Horgan	SFI Discover Programme Projects Call 2013	VEX IQ Junior Robotics Programme	Lifetime Lab	13,000.00
Mr Bernard Kirk	SFI Discover Programme Projects Call 2013	Irish Schools Mini Sumo Robots Challenge	Galway Education Centre	5,000.00
Mr Michael White	SFI Discover Programme Projects Call 2013	Famelab Ireland 2014	British Council Ireland	7,750.00
Ms Eithne Verling	SFI Discover Programme Projects Call 2013	Navigation Gallery	Galway City Museum	18,000.00
Mr Tom O'Sullivan	SFI Discover Programme Projects Call 2013	Tech Week 2014	ICS Skills	50,000.00
Ms Marcela Whelan	SFI Discover Programme Projects Call 2013	Discovery Science Festival	Cork City Council	25,000.00
Prof. Kingston Mills	SFI Internship	Internship	Trinity College Dublin	144,118.00
Mr Ross Whittaker	SFI Discover Programme Projects Call 2013	Unbreakable Tour	True Films	10,000.00
Mr Shane McCracken	SFI Discover Programme Projects Call 2013	I'm a Scientist / Engineer - Get me out of here	Gallomanor Communications Limited	30,000.00
Dr Peter Crowley	ERC Development	Supramolecular Approaches to Protein Surface Recognition and Assembly (SupraSurf)	National University of Ireland, Galway	491,643.10
Prof. Andrew Shearer	Conference & Workshop	Speed and Sensitivity; Expanding Astronomical Horizons with ELTs	National University of Ireland, Galway	8,897.00
Prof. John Reynolds	Conference & Workshop	The 9th International Cancer Conference "Living with Cancer in the 21st Century	Trinity College Dublin	7,000.00
Dr Gabriel Miro-Muntean	Conference & Workshop	The 13th International Technologh & Telecommunications Conference (IT&T 2014)	Dublin City University	1,500.00
Dr Jakki Cooney	Conference & Workshop	Microbe-Host Molecular Dialogue: SGM Irish Branch Meeting	University of Limerick	500.00
Ms Teenagh Cunningham	SFI Discover Programme Projects Call 2013	BEAST! (Baboro: Environment, arts, Science and Technology	Baboro	10,300.00
Dr Donagh O'Mahony	SFI Discover Programme Projects Call 2013	Citizen Solar Scientest	Tyndall National Institute	27,475.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Ms Jenny Beale	SFI Discover Programme Projects Call 2013	Exploring Nature's Power	Brigit's Garden	31,595.00
Dr Paul Hurley	Conference & Workshop	18th Workshop on Dielectrics in Microelectronics	Tyndall National Institute	1,400.00
Dr Robert O'Connor	Conference & Workshop	Workshop on Quantitative Pharmacology and Systems Biology in Pharmaceutical Development	Dublin City University	6,000.00
Dr Vladimir Dotsenko	Conference & Workshop	10th William Rowan Hamilton Geometry and Topology Workshop	Trinity College Dublin	7,000.00
Prof. Declan Gilheany	Conference & Workshop	Workshop on Sustainable Phosphorous	University College Dublin	6,660.00
Dr Miguel Bustamante	Conference & Workshop	102nd European Study Group with Industry	University College Dublin	8,710.00
Dr Jeff Punch	Conference & Workshop	Eurotherm Seminar 102 "Thermal Management of Electronic Systems"	University of Limerick	8,800.00
Prof. Martin Clynes	Conference & Workshop	From cells to tissues: Stem cells, Tissue repair and Tissue Engineering for Diabetes, Eye Diseases and Neuro-degenerative Diseases	Dublin City University	3,000.00
Dr Eilis Dowd	Conference & Workshop	24th Annual Meeting of the Network for CNS Transplation & Repair (NECTAR)	National University of Ireland, Galway	10,545.00
Prof. Kumlesh Dev	Conference & Workshop	4th Annual Meeting, Frontiers in Neurology (FIN)	Trinity College Dublin	3,050.00
Prof. Padraig Dunne	Conference & Workshop	ACAM/CECAM Ireland Workshop Series: Bridging Simulation, Experiment & Industrial application in Biology and Advanced Materials (Year V)	University College Dublin	25,000.00
Prof. Tim O'Brien	TRA	Limb salvage using mesenchymal stem cell induced vascular regeneration	Health Research Board	525,734.60
Thomas Cotter	Investigator Programme - Non-Themed and Non-ERC	Cell survival signalling mechanisms and drug delivery strategies for retinal neuroprotection	University College Cork	1,145,205.00
Sanbing Shen	Investigator Programme - Non-Themed and Non-ERC	Role of NRXN1 in neurodevelopmental disorders: from stem cells to clinical phenotypes	National University of Ireland, Galway	1,719,083.00
Conor McCarthy	Investigator Programme - Non-Themed and Non-ERC	Fastener-less Joining Technologies for High Performance Hybrid Composites-Metal Structures	University of Limerick	1,310,349.00
Andreas Heise	Investigator Programme - Non-Themed and Non-ERC	Functional polymers for (nano)medical devices	Dublin City University	1,866,368.00
Martin Clynes	Investigator Programme - Non-Themed and Non-ERC	Phenotype Engineering using MicroRNAs in Chinese Hamster Ovary (CHO) Cells to Achieve Faster Growth Rate and Extended Culture Lifespan for more Efficient Biopharmaceutical Production	Dublin City University	1,526,898.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Michael O'Neill	Investigator Programme - Non-Themed and Non-ERC	App'ED	University College Dublin	1,794,812.00
John Atkins	Investigator Programme - Non-Themed and Non-ERC	Dynamic redefinition of codons: From antivirals to an essential micronutrient	University College Cork	1,515,761.00
Thorfinnur Gunnlaugsson	Investigator Programme - Non-Themed and Non-ERC	Supramolecular approach to novel nano-materials for biological and material applications	Trinity College Dublin	3,108,960.00
Emmanuelle Graciet	Investigator Programme - Non-Themed and Non-ERC	Regulation of Plant Immunity through Protein Degradation by the N-end Rule Pathway	National University of Ireland, Maynooth	779,809.00
Siobhan Clarke	Investigator Programme - Non-Themed and Non-ERC	SURF: Service-centric networking for urban-scale feedback systems	Trinity College Dublin	1,936,068.00
John Ringwood	Investigator Programme - Non-Themed and Non-ERC	Development of the next generation of controllers for wave energy devices	National University of Ireland, Maynooth	1,436,895.00
David Henshall	Investigator Programme - Non-Themed and Non-ERC	MicroRNA biofluid profiles as molecular diagnostics for epilepsy	Royal College of Surgeons in Ireland	903,434.00
Mathias Senge	Investigator Programme - Non-Themed and Non-ERC	Molecular Scaffolds and Functional Design - Porphyrins as Platforms for Biomedical Applications	Trinity College Dublin	2,067,451.00
John Dingliana	Investigator Programme - Non-Themed and Non-ERC	aRTIVVIS: Real-time Time-variant Volume Visualisation	Trinity College Dublin	847,819.00
Wolfgang Schmitt	Investigator Programme - Non-Themed and Non-ERC	Bio-inspired Chemical Transformations in Confined Supramolecular Environments of Nanoscopic Coordination Cages and Metal-Organic Frameworks	Trinity College Dublin	1,223,036.00
Kenneth Wolfe	Investigator Programme - Non-Themed and ERC	Sexual cycles, genomics, and mating-type switching in non-conventional yeast species	University College Dublin	919,224.00
Andrew Fowler	Investigator Programme - Non-Themed and Non-ERC	Mathematical modelling of soil biomass	University of Limerick	1,512,546.00
Stefan Hutzler	Investigator Programme - Non-Themed and Non-ERC	Usage of peat biomass in novel products obtained with fibre-foam dispersions	Trinity College Dublin	587,273.00
Douwe van Sinderen	Investigator Programme - Non-Themed and Non-ERC	Functional analysis of the host adsorption and DNA injection processes of a lactococcal bacteriophage	University College Cork	1,370,280.00
Greg Hughes	Investigator Programme - Non-Themed and Non-ERC	Copper diffusion barrier layers for advanced interconnect integration	Dublin City University	896,685.00
Prof. Jim Greer	Investigator Programme - Non-Themed and Non-ERC	SMALL: Semi-Metal ALL-in-One Technologies	Tyndall National Institute	937,161.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Stefan Oscarson	Investigator Programme - Non-Themed and Non-ERC	Design, Synthesis, and Development of Carbohydrate–Based Vaccines, Therapeutics, Diagnostics, and Medical Devices.	University College Dublin	1,919,753.00
Frank Peters	Investigator Programme - Non-Themed and Non-ERC	Injection locking within Photonic Integrated Circuits supporting high spectral density optical communications	Tyndall National Institute	1,723,810.00
Wenxin Wang	Investigator Programme - Non-Themed and Non-ERC	In situ formed Skin Substitute in Combination with Gene Therapy for Wound Healing	University College Dublin	1,188,389.00
Dr Niall Barron	Investigator Programme - Non-Themed and Non-ERC	Improving Biopharmaceutical productivity from industrial CHO cell lines by microRNA knockdown	Dublin City University	562,641.00
Laurence Shalloo	Investigator Programme - Themed and Non-ERC	Using precision technologies, technology platforms and computational biology to increase the economic and environmental sustainability of pasture based production systems	Teagasc	1,335,724.00
Laurence Shalloo	Investigator Programme - Themed and Non-ERC	Using precision technologies, technology platforms and computational biology to increase the economic and environmental sustainability of pasture based production systems	Teagasc	-667,862.00
Michael Peter Kennedy	Investigator Programme - Non-Themed and Non-ERC	Advanced Frequency Synthesis Informed by Nonlinear Dynamics	Tyndall National Institute	1,252,060.00
Gavin Walker	Investigator Programme - Themed and Non-ERC	Model Predictive Control of Continuous Pharmaceutical Processes	University of Limerick	1,192,187.00
Orla Feely	SFI ERC Support Programme	SFI ERC Support - Dr Aoife Gowen	University College Dublin	297,536.00
Peter Gallagher	SFI Discover Programme Projects Call 2013	Sunspotters - Bringing the Sun to Secondary School Students	Trinity College Dublin	15,000.00
Joanna Quinn	SFI Discover Programme Projects Call 2013	Curiosity Lab @ Science Week	Royal Dublin Society RDS	25,750.00
Eilish McLoughlin	SFI Discover Programme Projects Call 2013	Busking Physics	Dublin City University	40,000.00
Karen English	SIRG	Investigating the capacity for multipotent adult progenitor cells to prolong graft survival through modulation of homeostatic proliferation	National University of Ireland, Maynooth	519,996.00
Ruslan Dmitriev	SIRG	DEVELOPMENT OF BIONIC SENSOR MATERIALS FOR METABOLIC IMAGING IN REGENERATIVE MEDICINE	University College Cork	516,756.00
Avelino Alvarez Ordonez	SIRG	New weapons to fight old enemies – biocontrol of spoilage and pathogenic bacteria in the dairy industry with novel inhibitors of quorum sensing and biofilm formation	Teagasc	519,532.00
Stephen Dooley	SIRG	Realistic Reaction Kinetics Models for the Production of Platform Chemicals and Designer Fuels from Biomass	University of Limerick	518,367.00
Michael Scanlon	SIRG	Designing Reactive Functionalised Soft Interfaces – Self-healing soft materials for solar energy conversion, energy storage, and sustainable low cost hydrogen production	University College Cork	509,092.00

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Patrick Hayden	SIRG	Confined Time-Resolved Vacuum Ultraviolet (VUV) Laser Induced Breakdown Spectroscopy for Pharmaceutical Applications	Dublin City University	475,483.00
Colin Clarke	SIRG	Genome-scale analysis of mammalian cell factories: Parallel multi-omic characterisation of CHO cells to enhance biopharmaceutical production.	The National Institute for Bioprocessing Research and Training (NIBRT)	515,033.00
Annie Curtis	SIRG	A New Dimension to the Immune Response: Biological Molecular Clocks Controlling Inflammation.	Trinity College Dublin	519,652.00
Orla O'Sullivan	SIRG	Investigating the impact of high intensity exercise and/or protein intake levels on gut microbial diversity.	Teagasc	520,000.00
Frederick Sheedy	SIRG	Targeting microRNA to drive a successful host response to Mycobacterium tuberculosis – engineering a better vaccine	Trinity College Dublin	519,598.00
Alex von Kriegsheim	SIRG	Knocking the Wnt out of Colon Cancer: Role of prolyl/asparaginyl-hydroxylases in colon cancer initiation	University College Dublin	519,592.00
Eva Jimenez-Mateos	SIRG	microRNA in the pathogenesis and prognosis of neonatal brain injury	Royal College of Surgeons in Ireland	519,635.00
Tobias Engel	SIRG	Novel treatments and diagnostics for epilepsy via the ATP-gated P2X7 receptor	Royal College of Surgeons in Ireland	519,890.00
Prof. Patrick Lonergan	Investigator Programme - Non-Themed and Non-ERC	Reducing embryo mortality through improved understanding of embryo maternal communication	University College Dublin	862,792.00
Michael Diskin	Investigator Programme - Themed and Non-ERC	The development of early non-invasive and reliable molecular biomarkers of pregnancy in dairy cattle.	Teagasc	1,132,916.00
Gary McGuire	Investigator Programme - Themed and Non-ERC	Theory and Application for the Discrete Logarithm Problem in Finite Fields: setting a Cryptographic World Record	University College Dublin	632,492.00
Noel Lowndes	Investigator Programme - Themed and Non-ERC	The ATR and ATM kinases: new roles in maintaining genome stability.	National University of Ireland, Galway	1,761,576.00
Jiafu Wang	Career Development Award	Novel long-acting biotherapeutics targeted to sensory neurons and/or inflammatory cells for treating chronic neuropathic and inflammatory pain	Dublin City University	557,321.00
David Henry	Career Development Award	Nonlinear wave-current interactions in the nearshore: addressing the role of vorticity and nonlinearity in the modelling of ocean energy	University College Cork	571,802.00
Ozgur Bayram	Career Development Award	Roles of histone demethylase complexes in the control of fungal development and secondary metabolite production	National University of Ireland, Maynooth	597,630.00
Caitriona Lally	Career Development Award	Fundamental Insights into Load Induced Fibre Remodelling in Arterial Tissue; Applications in Vascular Tissue Engineering and Medical Device Development	Dublin City University	615,559.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Aoife Morrin	Career Development Award	SSCIN – Sensing SubCutaneously INvitro - New paradigms to overcome invasive diagnostics	Dublin City University	643,026.00
David Finlay	Career Development Award	Investigating Natural Killer (NK) cell metabolism as a determinant of NK cell anti-tumour activity	Trinity College Dublin	647,465.00
Peter Crowley	Career Development Award	Supramolecular Approaches to Protein Surface Recognition and Self Assembly	National University of Ireland, Galway	619,488.00
Sergei Lebedev	Career Development Award	STRUCTURE AND SEISMICITY OF IRELAND'S CRUST	Dublin Institute for Advanced Studies	535,539.00
Jonathan Bones	Career Development Award	An Analytical Platform for Early Stage Developability Assessment of Monoclonal Antibodies – How 'Manufacturable' is a mAb Candidate?	The National Institute for Bioprocessing Research and Training (NIBRT)	609,205.00
Mark Flanagan	Career Development Award	Signal-Space Cooperative Relaying Techniques for Future Wireless Networks (CooperaNET)	University College Dublin	580,174.00
Jamie Goggins	Career Development Award	Achieving nearly zero energy buildings - A life cycle assessment approach to retrofitting existing buildings (acronym: nZEB-RETROFIT)	National University of Ireland, Galway	631,932.00
Paula Colavita	Career Development Award	Rational design of amorphous carbon materials for the control of interfacial charge transfer and catalytic properties	Trinity College Dublin	623,662.00
Christophe Silien	Career Development Award	Nonlinear optical micro-spectroscopy for multiplex suspension immunoassay	University of Limerick	576,618.00
Thomas Naughton	Career Development Award	Three-dimensional microbiological imaging, automated analysis, and display using digital holography	National University of Ireland, Maynooth	611,421.00
Ken Nally	Career Development Award	Identification of the Molecular Pathways that Mediate Cytokine Induced Immunopathology of the Gut Epithelium	University College Cork	648,643.00
Patrick Kiely	Career Development Award	Targeting RACK1 as a dynamic cog downstream of growth factor and adhesion signalling.	University of Limerick	636,313.00
Jochen Prehn	Investigator Programme - Non-Themed and Non-ERC	BCL-2 family proteins and cellular bioenergetics in the control of cell survival: Towards novel predictive and prognostic markers for disease progression and therapy responses in colorectal cancer patients	Royal College of Surgeons in Ireland	2,241,695.00
Gianpiero Cavalleri	Career Development Award	Genetic biomarkers for epilepsy predisposition and treatment	Royal College of Surgeons in Ireland	624,038.00
Sarah Hudson	Career Development Award	Bio-availing of Antimicrobial Resources	University of Limerick	617,510.00
Rachel McDonnell	Career Development Award	Game Face: Perceptually Optimised Real-Time Facial Animation	Trinity College Dublin	533,614.00
Stefan Schulz	SIRG	Shaping the electronic and optical properties of non- and semi-polar nitride-based semiconductor nanostructures	Tyndall National Institute	448,328.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Henry Curran	Conference & Workshop	37th International Symposium on Combustion, Dublin, Ireland Travel Award for Bid	National University of Ireland, Galway	2,672.00
Robert Woods	Conference & Workshop	5th Charles Warren Workshop 2014	National University of Ireland, Galway	2,000.00
Brian Davis	Conference & Workshop	Fourth Workshop on Controlled Natural Language (CNL2014)	National University of Ireland, Galway	3,856.00
Alan Smeaton	Conference & Workshop	The 8th Irish Human Computer Interaction Conference (Ihic 2014)	Dublin City University	1,550.00
Robert Bogdan Staszewski	Research Professorship Programme	Mixed-Signal Integrated Circuit Electronics to Enable the Internet-of-Things	University College Dublin	6,220,815.00
Michael Diskin	Investigator Programme - Themed and Non-ERC	The development of early non-invasive and reliable molecular biomarkers of pregnancy in dairy cattle.	Teagasc	-566,458.00
Norman Davey	SIRG	Decoding the regulatory landscape of the intrinsically disordered proteome.	University College Dublin	463,797.00
Francis Boland	Investigator Programme - Non-Themed and Non-ERC	Spatial audio over virtual and irregular arrays	Trinity College Dublin	612,526.00
Ed Lavelle	Conference & Workshop	Irish Society for Immunology Workshop on the Microbiota and Clinical Immunology	Trinity College Dublin	5,800.00
Frank Barry	Conference & Workshop	International Conference on Stem Cell of Technology and Therapy	National University of Ireland, Galway	5,000.00
Richard Roche	Conference & Workshop	Young Neuroscientists Symposium	National University of Ireland, Maynooth	2,165.00
Radka Fahey	SIRG	EPIGENETIC REGULATION OF GLYCOSYLATION AND THE IMPACT ON CHEMO-RESISTANCE IN CANCER	The National Institute for Bioprocessing Research and Training (NIBRT)	519,235.00
Louise Kenny	Spokes Fixed Programme	Personalise Nutrition for the Preterm Infant (PiNPoiNT)	University College Cork	1,078,037.40
Paul Townsend	Spokes Fixed Programme	Transfer print for integrated on-wafer laser	Tyndall National Institute	648,022.70
Ned Costello	SFI/IUA Partnership	Marie Sklodowska-Curie Actions (MSCA) Programme Officer	The Irish Universities Association	450,000.00
Cormac Sreenan	Investigator Programme - Non-Themed and Non-ERC	An Internet Infrastructure for Video Streaming Optimisation (iVID)	University College Cork	1,116,063.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Orla Feely	SFI ERC Support Programme	SFI ERC Support - Martin Elbrecht	University College Dublin	187,352.00
Paul Doherty	US-Ireland R&D Partnership Planning Grant	Repetitive Loading of Marine Renewable Structures	University College Dublin	1,685.00
Fatima Gunning	Career Development Award	Software Defined Control of Superchannel Transponders for super-Tb/s Elastic Optical Networks	Tyndall National Institute	812,143.00
Dr Plamen Stamenov	Conference & Workshop	Low Temperatures and High Magnetic Fields for Characterisation of Advanced Materials and Devices	Trinity College Dublin	1,000.00
Prof. Graham Ellis	Conference & Workshop	Seventh de Brún Workshop on Homological Perturbation Theory	National University of Ireland, Galway	5,400.00
Dr Kieran Kilcawley	Conference & Workshop	The Ninth Cheese Symposium 2014 (part of the UCC/Teagasc Alliance in Food Research in collaboration with INRA)	Teagasc	5,000.00
Prof. Alan Mathewson	Conference & Workshop	The 5th IEEE International 3D System Integration Conference (3DIC)	Tyndall National Institute	4,500.00
Michael Nolan	US Ireland R&D Partnership	SusChEM: Using theory-driven design to tailor novel nanocomposite oxides for solar fuel production	Tyndall National Institute	384,863.90
Louise Kenny	SFI Research Centres Supplement	Irish Centre for Fetal and Neonatal Translational Research (INFANT) - supplement	University College Cork	254,000.00
Dr Paul Hurley	US Ireland R&D Partnership	Understanding the Nature of Interfaces in Two Dimensional Electronic Devises (UNITE)	Tyndall National Institute	445,900.00
Jagdish Vij	US Ireland R&D Partnership	Ferroelectric and Electroclinic Effects in Nano-particle Doped de Vries Smectic Liquid Crystals: Molecular Organisation and Order	Trinity College Dublin	430,814.60
Sebastian Gornik	SIRG	The epigenetic basis of stem cell maintenance and cellular differentiation in the cnidarian Hydractinia	National University of Ireland, Galway	513,643.00
Annette Byrne	Career Development Award	ColoForetell: A Xenopatient Discovery Platform for the integrated Systems based Identification of Predictive Biomarkers for Targeted Therapies in Metastatic Colorectal Cancer	Royal College of Surgeons in Ireland	629,241.00
Dr Eucharia Meehan - Eavan O'Brien - IRC	Postgraduate Scholarship Scheme	STEM Awards	Irish Research Council	263,139.00
Dr Eucharia Meehan - Eavan O'Brien IRC	Postgraduate Scholarship Scheme	Employment Awards	Irish Research Council	216,000.00
Dr Peter Corcoran	Strategic Partnership Programme	Next Generation Imaging for Smartphone and Embedded Platforms	National University of Ireland, Galway	943,645.10
Prof. Kieran Hodnett	Spokes Fixed Programme	Advanced Biopharmaceutical Technologies	University of Limerick	1,376,622.30

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Prof. Peter Parbrook	US Ireland R&D Partnership	US-Ireland Collaborative Research on Nano-GaN Power Electronic Devices	Tyndall National Institute	453,987.30
Prof. Alan Harvey	SFI Internship	Internship	Dublin City University	157,245.40
Prof. Alan Harvey	SFI Internship	Internship	Dublin City University	135,990.40
Prof. Paul Moynagh	SFI-Pfizer Biotherapeutics Innovation Award Programme 2014	Targeting of IL-17RD as a new strategy to treat Inflammatory Diseases	National University of Ireland, Maynooth	478,910.70
Prof. Martin Steinhoff	SFI-Pfizer Biotherapeutics Innovation Award Programme 2014	Interleukin-36 and Its Receptor IL-36R: Potential Targets for the treatment of Psoriasis, pustulosa psoriasis and psoriasis arthropathy (PA)	University College Dublin	495,962.50
Prof. Padraic Fallon	SFI-Pfizer Biotherapeutics Innovation Award Programme 2014	Novel biotherapeutics for treatment of fibrosis	Trinity College Dublin	469,597.20
Prof. James O'Donnell	SFI-Pfizer Biotherapeutics Innovation Award Programme 2014	Use of Modified Truncated VWF Chaperones to Extend the Half-Life of Recombinant Factor VIII Therapy in Patients with Haemophilia A	Trinity College Dublin	515,695.00
Prof. Jochen Prehn	SFI-Pfizer Biotherapeutics Innovation Award Programme 2014	Angiogenin protein delivery for the treatment of motorneuron diseases	Royal College of Surgeons in Ireland	515,395.40
Prof. Linda Doyle	Advance Award Programme	Software Defined Optical Networks	Trinity College Dublin	210,908.10
Dr Peter O'Brien	Advance Award Programme	Dr Huihui Lu	Tyndall National Institute	174,190.90
Prof. Conchur O'Bradaigh	Advance Award Programme	Dr Vesna Jaksic	University College Cork	174,764.20
Prof. Georg Duesberg	Advance Award Programme	Dr Hye-Young Kim	Trinity College Dublin	86,247.20
Prof. Denis Shields	Conference & Workshop	5th Annual PhD Symposium in Computational Biology & Innovation	University College Dublin	3,080.80
Dr Timothy McCarthy	Conference & Workshop	8th Irish Earth Observation Symposium 2014	National University of Ireland, Maynooth	3,000.00
Dr Graham Kells	Conference & Workshop	Dublin Area Workshop on Nano-Science and Low Dimensional Quantum-Matter	Dublin Institute for Advanced Studies	4,500.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Prof. Igor Shvets	Advance Award Programme	Transparent p-n junctions: from bipolar doping to interface engineering	Trinity College Dublin	162,717.10
Prof. Valeria Nicolosi	Advance Award Programme	Characterization of complex primary and secondary mineral resources using high-resolution microscopy and surface science for design and evaluation of novel alternative geomicrometallurgical processing technologies	Trinity College Dublin	178,740.90
Prof. David Henshall	Advance Award Programme	Bioinformatics and predictive analytics for the identification of microRNA biomarkers of neonatal seizures	Royal College of Surgeons in Ireland	180,922.30
Prof. Anita Maguire	Advance Award Programme	ENSNARE Expanding NMR Spectroscopy as a key technique in Pharmaceutical Process Chemistry through New Advancements across Research and Enterprise	University College Cork	210,908.10
Dr Yvonne Nolan	Advance Award Programme	Examination of the cognitive enhancing potential of seaweed-derived mineral-rich nutraceuticals	University College Cork	156,492.70
Prof. Fiona Regan	Conference & Workshop	DCU Water Institute Conference (2014) (WI2104) "Water The Greatest Global Challenge"	Dublin City University	5,000.00
Prof. David Finn	Conference & Workshop	Careers in Neuroscience Symposium Galway 2014	National University of Ireland, Galway	1,000.00
Dr Madeline Murphy	Conference & Workshop	27th Annual Meeting of the European Renal Cell Study Group	University College Dublin	5,000.00
Dr Oliver Roberts	Conference & Workshop	Applications of novel scintillators for research and industry	University College Dublin	4,000.00
Dr Simon Elliott	Conference & Workshop	16th International Conference on Atomic Layer Deposition (ALD2016)	Tyndall National Institute	2,263.00
Dr Philip O'Reilly	Conference & Workshop	Workshop on Automatic Understanding of Creativity in Language (Creative-Lingo)	University College Cork	2,780.00
Brian Caulfield	Conference & Workshop	IPPOSI & Insight Connected Health-Hack & Workshop	University College Dublin	2,000.00
Henry Curran	Conference & Workshop	37th International Symposium on Combustion	National University of Ireland, Galway	75,000.00
Albert Ruth	Strategic Partnership Programme	A New Cavity Enhanced Trace Gas Absorption Detector for CARIBIC	University College Cork	384,404.80
Fergus Shanahan	Spokes Rolling Programme	Gut Phageomics - Phage as diagnostics and/or therapeutics in IBD	University College Cork	2,733,033.20
John Ringwood	Conference & Workshop	Towards Nonlinear Modelling and Control of Wave Energy Devices	National University of Ireland, Maynooth	3,900.00

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Orla Feely	SFI Internship	Internship	University College Dublin	139,994.40
Jeff Punch & JJ Leahy	US-Ireland R&D Partnership Planning Grant	High Performance Polymeric Nano-composites Reinforced with Fibrillated Cellulose for Additive Manufacturing	University of Limerick	2,750.00
Martin Clynes	TIDA 2014	Developing a new Conditioned Medium (CM)-based Growth Supplement for Cloning of Cells used by the Biopharmaceutical Industry	Dublin City University	129,350.00
Jens Ducree	TIDA 2014	System-level design of centrifugal-microfluidic "Lab-on-a-Disc" systems	Dublin City University	97,563.00
Robert O'Connor	TIDA 2014	Manganese Oxide Based Protective Layers for Photo-electrochemical Water Splitting Cells	Dublin City University	110,473.00
Patrick McNally	TIDA 2014	HIGH SENSITIVITY LOW-COST PORTABLE PLASMONIC PHOTOACOUSTIC DETECTOR (P3-D) SYSTEM FOR BIODETECTION	Dublin City University	128,690.00
Robert Nooney	TIDA 2014	Fluorescent Nanoparticle Dissolution Amplification applied to an immunomagnetic assay for sensitive detection of disease biomarkers (FiNDA)	Dublin City University	120,871.00
Mahendra Kumar	TIDA 2014	Polymeric Brush Grafted Membrane Platform for Protein Immobilization (MemPro)	Dublin City University	108,647.00
Elaine Spain	TIDA 2014	“TORNADO” Theranostic One-step RNA Detector	Dublin City University	120,873.00
Susan Kelleher	TIDA 2014	DynaMat: Dynamic materials for drug delivery and diagnostics	Dublin City University	97,682.00
Andrew Way	TIDA 2014	OCR2MT: Integrating Optical Character Recognition into Machine Translation in Legal Translation	Dublin City University	128,346.00
Tia Keyes	TIDA 2014	Hybrid Metallopolymer-Polyoxometalate Materials; Nanoporous Thin films for Solar Water Purification.	Dublin City University	128,494.00
Prince Anandarajah	TIDA 2014	Programmable Frequency Comb for Elastic Optical Networks	Dublin City University	123,107.00
David Collins	TIDA 2014	Towards the development of a portable/deployable total ion analyser platform for rapid analysis of ground and river water systems	Dublin City University	94,770.00
Stephen Daniels	TIDA 2014	Seaweed-based Integrated Biorefinery in Ireland: A new approach for extraction of high-value products and biogas generation.	Dublin City University	81,232.00
Mary Pryce	TIDA 2014	The development of Novel Polymer Matrices for the Electrocatalytic Generation of Hydrogen	Dublin City University	128,974.00

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Ramji Lakshmanan	TIDA 2014	Mobile optomechanical sensor for blood coagulation monitoring.	Dublin City University	120,441.00
John Costello	TIDA 2014	Compact High Throughput Optical Spectrometer Platform	Dublin City University	83,535.00
Gerald Farrell	TIDA 2014	OptiBreath: An optical fiber based multi-parameter human breath sensor	Dublin Institute of Technology	100,515.00
Max Ammann	TIDA 2014	Printed Multiband Circularly Polarized “Rectennas” for RF Energy Harvesting	Dublin Institute of Technology	101,244.00
Sanbing Shen	TIDA 2014	Develop enabling stem cell technology with biomaterial	National University of Ireland, Galway	129,960.00
Daniel O'Toole	TIDA 2014	Therapeutic and Commercial Viability of Medically Licensed Mesenchymal Stem Cells for Acute Respiratory Distress Syndrome.	National University of Ireland, Galway	129,451.00
Charles Spillane	TIDA 2014	High Metal Yeast for Improved Pig Nutrition	National University of Ireland, Galway	127,070.00
Abhay Pandit	TIDA 2014	The enhanced commercial production of stem-cells by the induction of cellular quiescence using DNA aptamers.	National University of Ireland, Galway	113,008.00
Lokesh Joshi	TIDA 2014	Hollow Micro-sphere Conductive Neuroelectrde Coatings for the Management of Chronic Pain	National University of Ireland, Galway	112,684.00
Manus Biggs	TIDA 2014	SENSIDON: A Connected Health System for the Continuous Non-invasive Measurement of Functional Health in the Home and Wider Community	National University of Ireland, Galway	127,966.00
Stefan Decker	TIDA 2014	Functionalised Intraluminal Fibrous Conduit for Peripheral Nerve Repair	National University of Ireland, Galway	128,321.00
Gearóid Ó Laighin	TIDA 2014	Newswire 2.0	National University of Ireland, Galway	124,532.00
Martina Schroeder	TIDA 2014	Development of tool compounds for the therapeutic manipulation of human DDX3 protein	National University of Ireland, Maynooth	124,865.00
Sally-Ann Cryan	TIDA 2014	Development of a green cost efficient procedure for the preparation of peptide containing drugs	Royal College of Surgeons in Ireland	101,689.00
Mauro Adamo	TIDA 2014	Development of a scalable process for production of inhaled anti-tubercular therapies using bioactive carriers	Royal College of Surgeons in Ireland	121,152.00
Padraic Fallon	TIDA 2014	Modulation of inflammation to treat obesity	Trinity College Dublin	129,077.00
Aisling Dunne	TIDA 2014	Assessment of marine derived linear tetrapyrroles as immunosuppressive agents for organ transplantation	Trinity College Dublin	130,000.00

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John Donegan	TIDA 2014	Development of a single mode laser technology for passive optical networks	Trinity College Dublin	125,195.00
Niall McEvoy	TIDA 2014	Scalable Production of Transition Metal Dichalcogenide Catalysts for the Hydrogen Evolution Reaction	Trinity College Dublin	123,070.00
Sylvia Draper	TIDA 2014	New Materials for Electrode Fabrication in Fuel Cell Applications	Trinity College Dublin	107,336.00
Tony Donnelly	TIDA 2014	Nanoparticle production by laser ablation in a gas flow	Trinity College Dublin	116,009.00
Rachel Evans	TIDA 2014	Hybrid Organic-Inorganic Polymers: Novel Waveguides and Device Architectures for Luminescent Solar Concentrators with Superior Collecting Efficiencies	Trinity College Dublin	118,149.00
Nigel John Stevenson	TIDA 2014	Curing Rheumatoid Arthritis with broad acting anti-viral peptide therapeutics	Trinity College Dublin	129,172.00
Antoinette Perry	TIDA 2014	Teaching old dogs new tricks. New electrodes for an old technology: Innovative metal oxide based probes for pH detection.	Trinity College Dublin	110,749.00
John Dingliana	TIDA 2014	Development and validation of an integrated 21-marker molecular test for predicting response to chemoradiation therapy in oesophageal adenocarcinoma patients	Trinity College Dublin	110,594.00
Michael Lyons	TIDA 2014	RAPID SENSING OF VIRAL AND BACTERIAL LOADS VIA GLYCOSYLATED OFET TECHNOLOGY	Trinity College Dublin	122,485.00
Mathias Senge	TIDA 2014	epiCaPture: A non-invasive urine test for early detection of High-Risk Prostate Cancer	Trinity College Dublin	125,623.00
Jacintha O'Sullivan	TIDA 2014	INFOCARVE: Focus and Context Visualisation for Augmented Reality	Trinity College Dublin	127,482.00
Igor Shvets	TIDA 2014	Molecular Engineering of 5,10-donor-acceptor porphyrins for dye-sensitised-solar cells	Trinity College Dublin	127,142.00
Maria Daniela Angione	TIDA 2014	Smart Current Sensor for High Power Applications and Grid Monitoring	Trinity College Dublin	115,314.00
Brendan O'Flynn	TIDA 2014	Single Element Planar Antenna with High Gain and Beam Steering capabilities - SEPARATE	Tyndall National Institute	102,822.00
Kafil M. Razeeb	TIDA 2014	SweatSens: Biofouling Mitigated Sweat pH and Glucose Sensing	Tyndall National Institute	120,233.00
Eric Moore	TIDA 2014	Development of a minimally invasive smart impedance probe for detection of malignant and non-malignant breast masses.	Tyndall National Institute	117,040.00

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Aidan Quinn	TIDA 2014	Development of foil-based 3-dimensional solid state supercapacitors for energy storage	Tyndall National Institute	119,680.00
Des Field	TIDA 2014	Nis-2-Gen: Developing Second Generation Nisin's with Therapeutic Applications.	University College Cork	126,123.00
Jennifer Mahony	TIDA 2014	Next generation diagnostic tools for problematic dairy bacteriophages	University College Cork	126,055.00
Anita Maguire	TIDA 2014	Synthesis and biological evaluation of prodrug derivatives of ?-carboxynucleosidephosphonate NRTIs (? -CNPs)	University College Cork	126,759.00
Albert Andy Ruth	TIDA 2014	Frequency comb sources for cutting-edge trace gas detection	University College Cork	129,494.00
Fergal O'Gara	TIDA 2014	Next Generation Antibiotics: anti-biofilm, anti-pathogenic natural bioactives from marine microorganisms.	University College Cork	125,233.00
Gil U Lee	TIDA 2014	Point of Use Detection of Mastitis (POUMA)	University College Dublin	128,547.00
Shane Ward	TIDA 2014	BIRDEYE - Thermal Imaging system to monitor poultry distribution and movement in poultry houses to form part of an overall process control system	University College Dublin	107,087.00
Fiona Doohan	TIDA 2014	Novel technology solutions for affinity proteomics	University College Dublin	104,000.00
Dezhong Zhou	TIDA 2014	A METHOD FOR ENHANCING PLANT IMMUNITY TO MULTIPLE STRESSORS	University College Dublin	121,243.00
Kevin O'Connor	TIDA 2014	Development of Hyperbranched Poly(?-Amino Ester) as Safe and Efficient Gene Delivery Vector	University College Dublin	106,990.00
James Rice	TIDA 2014	Biobased polymers as a new generation of surfactants	University College Dublin	116,340.00
David O'Connell	TIDA 2014	Monitoring of pathogenic bacteria using plasmonic enhancement methodology	University College Dublin	121,997.00
Michael Gilchrist	TIDA 2014	Development of a porous microneedle patch drug delivery platform	University College Dublin	123,896.00
Jeff Punch	TIDA 2014	A Multiple Degree-of-Freedom Vibrational Energy Harvester	University of Limerick	117,820.00
Antoinette Perry	Industry Fellowship	Development and validation of molecular diagnostic assays for oncology markers	Trinity College Dublin	93,610.00
Davide Cellai	Industry Fellowship	Churn modelling in telecommunication systems	University of Limerick	60,250.00

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Jian-Yao Zheng	Industry Fellowship	Optical cooling of active semiconductor devices using anti-Stokes emission	Trinity College Dublin	62,048.00
Philip Lyons	Industry Fellowship	Novel materials and nanocomposites for increased performance and functionality in advanced balloon catheters	Trinity College Dublin	99,367.00
Ita Richardson	Industry Fellowship	Medical Device Software Quality Management Systems: Development and Evaluation through Action Research	University of Limerick	84,528.00
Gerard O'Connor	Industry Fellowship	Investigation of high throughput short-pulse laser structuring of emerging micro- and nano- scale materials for future roll to roll manufacturing based on thin flexible glass.	National University of Ireland, Galway	51,739.00
Shane O'Mara	Industry Fellowship	Infrared detection of microtubular proteins in plasma and platelets as peripheral biomarkers of disease progression in treatment resistant depression	Trinity College Dublin	31,079.10
Abhay Pandit	SFI Research Centres	CÚRAM - Centre for Research in Medical Devices	National University of Ireland, Galway	37,092,901.00
John Walsh	SFI Research Centres	Irish Centre for Research in Applied Geosciences (iCRAG)	University College Dublin	24,888,555.00
Michael Hinchey	SFI Research Centres	Lero - the Irish Software Research Centre	University of Limerick	32,604,686.00
Linda Doyle	SFI Research Centres	CONNECT: The Centre for Future Networks & Communications	Trinity College Dublin	31,147,453.00
Vincent Wade	SFI Research Centres	ADAPT: Centre for Digital Content Platform Research	Trinity College Dublin	30,713,725.00
Pavel Gladyshev	Conference & Workshop	2nd Digital Forensic Research Workshop Conference - Europe (DFRWS EU 2015)	University College Dublin	9,000.00
Dr Yuansong Qiao	SIRG	Application-aware Video Distribution using Software Defined Networking	Athlone Institute of Technology	464,092.00
Dr Steven Kerrigan	Career Development Award	Endothelial dysfunction in severe blood stream infection	Royal College of Surgeons in Ireland	593,138.00
Prof. Seamus Donnelly	Investigator Programme - Non-Themed and Non-ERC	Macrophage migration inhibitory factor (MIF), enzymatic activity & Pseudomonas Aeruginosa infection	Trinity College Dublin	1,733,987.00
Shane O'Mara	SFI-HRB-Wellcome Trust Biomedical Research Partnership	The cognitive thalamus: more than a relay	Health Research Board	299,699.25

SFI Research Scientist	Programmes	Research Title	Research Body	Total value of award including overheads
Colm Ryan	SFI-HRB-Wellcome Trust Biomedical Research Partnership	The Impact of Genetic Heterogeneity on Synthetic Lethality in Cancer	Health Research Board	75,193.75
Michael Hartnett	Advance Award Programme	The application of innovative marine modelling and observation research to help industry exploit wave energy distraction of West Coast Ireland	National University of Ireland, Galway	205,318.10
Aisling Ni Annaidh	Conference & Workshop	Connecting with Industry Workshop: A Bioengineering in Ireland XXI Event	University College Dublin	1,960.00
Lorraine Brennan	EU Joint Programme Initiative	FOODBALL (The Food Biomarkers Alliance)	University College Dublin	300,586.60
Helen Roche	EU Joint Programme Initiative	FOODBALL (The Food Biomarkers Alliance)	University College Dublin	196,983.10
Jochen Prehn	EU Joint Programme Initiative	CeBioN (Cellular Bioenergetics in Neurodegenerative Diseases)	Royal College of Surgeons in Ireland	266,065.00
Damien Thompson	EU Joint Programme Initiative	Mising Link	University of Limerick	107,650.00
Louise Kenny	SFI Research Centres Supplement	EPE & Admin Support (INFANT)	University College Cork	359,157.50
Dr Ria O'Sullivan	SFI Discover Programme Call 2014	Cosmos at the Castle: The Space for Science	Cork Institute of Technology	35,000.00
Dr Ria O'Sullivan	SFI Discover Programme Call 2014	All You Need Is Space - A Festival Of Space Science	Cork Institute of Technology	8,100.00
Dr Eilish McLoughlin	SFI Discover Programme Call 2014	Science on Stage inspiring engagement in science	Dublin City University	7,100.00
Ms Emma O'Brien	SFI Discover Programme Call 2014	BioBoxes: Engaging hospitalized children in Biomedical Science & Health	Dublin City University	20,271.00
Dr Julie Dunne	SFI Discover Programme Call 2014	SwitchOnSTEM.ie : Resources to support Higher Education Engagement Activities	Dublin Institute of Technology	39,000.00
Prof. Abhay Pandit	SFI Discover Programme Call 2014	Chimera - Art and Science Project	National University of Ireland, Galway	20,000.00
Prof. Stefan Decker	SFI Discover Programme Call 2014	The All-Ireland Apps4Gaps competition	National University of Ireland, Galway	3,500.00
Prof. Susan Schreibman	SFI Discover Programme Call 2014	Letters of 1916: Community Engagement	National University of Ireland, Maynooth	5,593.00
Ms Maria Kelly	SFI Discover Programme Call 2014	Debating Science Issues Competition - National Semi- Finals & Final 2015	Royal College of Surgeons In Ireland	4,885.00

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Dr Shane Bergin	SFI Discover Programme Call 2014	DART of Physics	Trinity College Dublin	50,000.00
Ms Mary Colclough	SFI Discover Programme Call 2014	Science LIVE! - virtual tours of Irish science centres	Trinity College Dublin	23,600.00
Ms Mary Colclough	SFI Discover Programme Call 2014	EngAGE with Science: An Intergenerational Public Engagement Programme	Trinity College Dublin	15,000.00
Ms Lynn Scarff	SFI Discover Programme Call 2014	Science Includes Me - Transition Year Mentoring Programmes that bridge science, the arts and design	Trinity College Dublin	35,708.00
Dr Paul Higgins	SFI Discover Programme Call 2014	Student2Scientist: Coding Junior-Cycle Science in Space	Trinity College Dublin	21,300.00
Ms Cliona O'Farrelly	SFI Discover Programme Call 2014	Smart World / Full Life	Trinity College Dublin	7,500.00
Dr Simon Elliott	SFI Discover Programme Call 2014	MakerDojo	Tyndall National Institute	45,282.00
Ms Fiona Kearney	SFI Discover Programme Call 2014	Boolean Expressions: Contemporary art and mathematical data	University College Cork	12,500.00
Dr Aoibhéann Bird	SFI Discover Programme Call 2014	Thesis in 3 (Tin3) 2015	University College Dublin	7,750.00
Dr Sarah Hayes	SFI Discover Programme Call 2014	Medicines in my Life	University of Limerick	40,500.00
Dr Sheila Donegan	SFI Discover Programme Call 2014	Bealtaine Living Earth Festival 2015	Waterford Institute of Technology	4,000.00
Mr Eoin Gill	SFI Discover Programme Call 2014	The Robert Boyle Summer School 2015	Waterford Institute of Technology	6,000.00
Ms Jackie Gorman	SFI Discover Programme Call 2014	SWIM - Science With Inspirational Mentors	Atlantic Corridor	9,000.00
Ms Amanda Slattery	SFI Discover Programme Call 2014	Limerick's Buzzing: Citizen Science Project	Ballyhoura Development Ltd.	31,540.00
Mr Michael White	SFI Discover Programme Call 2014	FAMELAB IRELAND 2015	British Council Ireland	24,050.00
Ms Brenda Cooper	SFI Discover Programme Call 2014	Cork Electronics Industry Association - George Boole 200	Cork Electronics Industry Association (CEIA)	48,000.00
Mr Shane McCracken	SFI Discover Programme Call 2014	I'm a Scientist/Engineer, Get me out of here!	Gallomanor Communications Ltd	29,000.00

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Ms Jennifer Moroney-Ward	SFI Discover Programme Call 2014	Science Hub Limerick	Learning Hub Limerick	15,000.00
Ms Hilary O'Shaughnessy	SFI Discover Programme Call 2014	Prototype Festival 2015: Playful Engineering Strand	Project Arts Centre	10,000.00
Mr Diego Fasciati	SFI Discover Programme Call 2014	BEES; A Musical by WillFredd Theatre	Rough Magic	41,804.00
Mr Colm Kavanagh	SFI Discover Programme Call 2014	Scouting STEM - exploring and discovering the world about us	Scouting Ireland	24,300.00
Ms Edelle Moss	SFI Discover Programme Call 2014	SFI Discover Science Zone at The Festival Big Day Out	St. Patrick's Day Festival	40,704.00
Dr Tara Singleton	SFI Discover Programme Call 2014	"Let's Talk Science Festival!"	The Rediscovery Centre Ltd	22,875.00
Mr Darren Smith	SFI Discover Programme Call 2014	Brain Freeze 2	Kite Entertainment	60,000.00
Ms Mary Murphy	SFI Discover Programme Call 2014	INSIDERS, a children's television series about STEM to be broadcast by RTÉ.	Stop.watch television Ltd.	226,000.00
Muriel Grenon	SFI Discover Programme Call 2014	Cell EXPLORERS - national expansion of a sustainable public engagement model	National University of Ireland, Galway	120,000.00
Mr Bernard Kirk	SFI Discover Programme Call 2014	EXCITED - The DIGITAL Learning Movement	Galway Education Centre	244,000.00
Ms Mary Moloney	SFI Discover Programme Call 2014	Child Protection; creating the infrastructure to ensure the future sustainability of CoderDojo Ireland	CoderDojo Foundation	69,527.00
Mr Tom O'Sullivan	SFI Discover Programme Call 2014	Tech Week	ICS Skills	145,000.00
Honorata kraskiewicz	TIDA 2014	Spatiotemporal delivery of angiogenic growth factors using a collagen sphere-in-gel system for the treatment of limb ischemia	National University of Ireland, Galway	121,780.00
Anne Hopkins	Investigator Programme - Non-Themed and Non-ERC	Understanding the mechanistic role and druggability of JAM-A, an emerging upstream regulator of breast cancer tumourigenic signalling, using in vitro and in vivo methodologies and a novel small molecule inhibitor	Royal College of Surgeons in Ireland	515,896.00
Shane O'Meara	Investigator Programme - Non-Themed and Non-ERC	The role of the claustrum as a mediator between cortical and sub-cortical processing	Trinity College Dublin	752,515.00
Charles Dorman	Investigator Programme - Non-Themed and Non-ERC	Bacterial nucleoid associated protein expression and stress resistance in pathogens	Trinity College Dublin	1,212,866.00
Ian Jeffrey	SIRG	DEVELOPMENT OF KNOWLEDGE BASE NESCESSARY FOR NOVEL DIAGNOSTIC AND THERAPEUTIC PIPELINE FOR THE EARLY IDENTIFICATION AND TREATMENT OF RHEUMATOID ARTHRITIS	University College Cork	518,490.00

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Charles Spillane	Investigator Programme - Non-Themed and Non-ERC	Harnessing epigenetic and genome dosage effects on hybrid vigour for sustainable crop and food production	National University of Ireland, Galway	1,242,589.00
Ann Hopkins	Conference & Workshop		Royal College of Surgeons in Ireland	5,000.00
Louise Kenny	Directors Fund - Research Centre Supplement	INFANT	University College Cork	260,000.00
Fergus Shanahan	Directors Fund - Research Centre Supplement	APC	University College Cork	260,000.00
Kieran Hodnett	Directors Fund - Research Centre Supplement	SSPC	University of Limerick	260,000.00
Paul Townsend	Directors Fund - Research Centre Supplement	I-PIC	Tyndall National Institute	260,000.00
Stefano Sanvito	Directors Fund - Research Centre Supplement	AMBER	Trinity College Dublin	260,000.00
Oliver Daniels	Directors Fund - Research Centre Supplement	INSIGHT	National University of Ireland, Galway	260,000.00
Conchur O'Braidaigh	Directors Fund - Research Centre Supplement	MaREI	University College Cork	260,000.00
Eucharia Meehan - Brendan Kirwan	Postgraduate Scholarship Scheme	Employment Awards	Irish Research Council	72,000.00
Eucharia Meehan - Mark Sheehan	Postgraduate Scholarship Scheme	Employment Awards	Irish Research Council	72,000.00
Eucharia Meehan - Sean McMahon	Postgraduate Scholarship Scheme	Employment Awards	Irish Research Council	62,875.00
TOTAL				**273,950,532.70**

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