

Science Foundation Ireland Annual Report

and Accounts 2008



Vision

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

Mission

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



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SFI Core Values

Excellence: We fund internationally recognised world-class research.

Engagement: We are committed to SFI's role in Ireland's development and to the research community.

Strategic: We are visionary, plan for the long term, and invest in research with consequences for the benefit of Ireland's economy and society.

Innovation: We are dynamic, collaborative, creative and responsive to the ever-changing needs of our stakeholders.

Integrity: We inspire trust by acting fairly, objectively, honestly and transparently in the manner in which we operate and the research that we fund.

Frontier research: We work at the frontiers of research. We advance knowledge, stimulate interdisciplinarity and promote linkages with industry.



Board Members

Prof. Patrick Fottrell Chairperson, former President, National University of Ireland, Galway

Dr. Jim Mountjoy Deputy Chairperson Chairman, Prospectus Consultancy Group

Prof. Frank Gannon Director General

Mr. Sean Aherne Vice President of Operations, Boston Scientific Tullamore Limited.

Mr. Tom Boland Chief Executive Officer, Higher Education Authority

Dr. Rita R. Colwell Chairman, Canon US Life Sciences, Inc. Distinguished Professor, University of Maryland College Park and Johns Hopkins University Bloomberg School of Public Health Former Director, National Science Foundation (NSF)

Helen A. Keelan Director, Sirikit Ltd.

Peter MacDonagh Research Consultant

Dr. Martina Newell-McGloughlin Director, University of California Systemwide Biotechnology Research and Education Program Co-Director, NIH Training Program in Biomolecular Technology

Mr. Martin Shanagher

Assistant Secretary, Science, Technology and Intellectual Property Division, Department of Enterprise, Trade and Employment

Dr. Don Thornhill Chairman, National Competitiveness Council of Ireland

Mr. John Travers Business & Economic Consultant and former CEO of Forfás & Science Foundation Ireland.

















- Prof. Patrick Fottrell (Chairperson)
- 2 Dr. Jim Mountjoy 3 Prof. Frank Ganno
- 3 Prof. Frank Gannon4 Mr. Sean Aherne
 - Mr. Tom Boland Dr. Rita R. Colwell
- 6 Dr. Rita R. Colwell
- Helen A. Keelan
- 8 Peter MacDonagh 9 Dr. Martina Newel
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- 11 Dr. Don Thornhill
- 12 Mr. John Travers
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Members of Committees of the Board 2008

1 Board Sub Group on Programme Grants

Dr Martina Newell-McGloughlin (Chairperson), Prof Frank Gannon, Prof Jane Grimson (Note 1), Prof Rita Colwell (Note 2), Mr. Peter MacDonagh, Dr Eucharia Meehan (Higher Education Authority) and Dr Gary Crawley (former Director SFI).

2 SFI Audit Committee

Dr Jim Mountjoy (Chairperson), Mr Aidan Hodson (Department of Enterprise, Trade & Employment), Ms Helen Keelan, Dr Don Thornhill, Mr Tom Boland (Note 3) and Mr Sean Aherne (Note 4).

3 Management Development and Remuneration Committee

Prof. Patrick Fottrell (Chairperson), Mr. Sean Aherne, Mr. Martin Shanagher and Mr. John Travers.

Note:

In accordance with the process of rotational retirement set out in Section 9 (3) and (4) of the Industrial Development (Science Foundation Ireland) Act 2003, Dr Jim Mountjoy and Mr Peter MacDonagh were chosen for retirement and were subsequently re-appointed to the Board by the Tanaiste and Minister for Enterprise, Trade and Employment, Ms Mary Coughlan T.D. with effect from 25 July 2008.

In accordance with the process outlined in section 10(1) and 10(4) of the Industrial Development (Science Foundation Ireland) Act 2003, Prof Patrick Fottrell was re-appointed as Chairperson of the SFI Board by the Tanaiste and Minister for Enterprise, Trade and Employment, Ms Mary Coughlan T.D. with effect from 25 July 2008.

Notes

- 1 Prof. Jane Grimson resigned her position as a Board Member of SFI with effect from 31 March 2008.
- 2 Prof. Rita Colwell was appointed as a member of the SFI Board by the Minister for Enterprise, Trade and Employment, Mr Micheál Martin T.D. with effect from 31 March 2008
- 3 Mr Tom Boland was appointed as a member of the SFI Board by the Minister for Enterprise, Trade and Employment, Mr Micheál Martin T.D. with effect from 1 April 2008. Mr Boland was appointed as a member of the Audit Committee by the SFI Board with effect from 11 November 2008.
- Mr Sean Aherne was appointed as a member of the Audit Committee by the SFI Board with effect from 11 November 2008.

Chairperson's Statement

It gives me great pleasure to introduce Science Foundation Ireland's (SFI) Annual Report and Financial Statements for 2008.

This document details SFI's key achievements and milestones throughout 2008 - an extremely proactive period during which the Government's Strategy for Science, Technology and Innovation (SSTI) 2006-2013 gathered further momentum. The SSTI provides the framework needed to build a world-class research system here in Ireland, and throughout the last year SFI continued to be a driving force in helping to achieve this objective.

The publication in December 2008 of "Building Ireland's Smart Economy - A Framework for Sustainable Economic Renewal" saw the Government prioritising continued investment in our science and engineering infrastructure. This Framework stresses the need to restructure our economy so that we can be in a leadership position when the global recovery begins. This requirement for adaptability and willingness to embrace convergence is central to SFI's philosophy, and we will work with Government and all other relevant agencies and stakeholders to implement the objectives set out in the framework over the next five years.



Prof. Patrick Fottrell Chairperson

As the Report demonstrates 2008 was an intensive year for SFI in the context of ensuring that Ireland will be a global knowledge leader that places scientific and engineering research at the core of its society to drive economic development and social progress. SFI continues to build the scale and quality of scientific excellence against the background of an awareness of enterprise needs and commercial potential.

The past year saw the establishment of an additional Centre for Science, Engineering and Technology (CSET) Clarity in UCD as well as second-phase funding allocated to three existing CSETs. There is now a nationwide network of multidisciplinary SFI teams working in close partnership with industry and conducting innovative research that will bring long-term economic and societal benefits to Ireland.

As well as progressing its programme of investment with a wide portfolio of research supports (479 awards approved during the year), SFI's remit was formally extended in 2008 to include research in the fields of science and engineering underpinning sustainable energy and energy-efficient technologies. This extension essentially enables SFI to generate high-quality research in these fields. We are currently identifying those strategic areas of energy research in which to invest that will result in economic benefits in the medium and longer-term.

At the start of 2008, the Naughton Institute, a \in 100 million state-of-the-art new science facility at Trinity College Dublin - housing Ireland's first purpose-built nanoscience research institute - was officially opened, incorporating the Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) and the Science Gallery. CRANN has received substantial Government investment, \notin 74 million of which has come in research grants through SFI.

During the year, in a review commissioned as part of the Government's 'Value for Money & Policy Review Initiative', SFI was independently assessed (by Indecon International Economic Consultants) as having successfully attracted the highest-quality research talent, domestically and



internationally, as well as significantly increasing its collaboration with industry. In addition, SFI-supported researchers were shown to be producing research outputs in the highest-ranking international publications in their fields.

The Value for Money report commended SFI for its rigorous peer review procedures, and recognised the merit of SFI offering a diverse range of different programmes which can attract different types of researchers and research activities. From a commercial perspective, too, there has been an acceleration in the number of patents filed, to the highest level in five years. SFI has been working to ensure that the recommendations contained in the Value for Money Report are being implemented.

A number of strategic appointments were also made in SFI during 2008, including the appointment of Dr. Stephen Simpson as Director of Life Sciences. Recruiting such expertise has enhanced SFI's operations and reinforced its presence within this vital sector.

November 2008 saw Dublin being chosen as host of the European City of Science for 2012, which is a prestigious honour and a major endorsement of the progress that Ireland has made in the areas of science, technology and innovation.

As Chairman of SFI, I wish to express my sincere thanks to the Board and Staff of SFI for their dedication and ongoing commitment. In particular, I want to commend the Director-General of SFI, Professor Frank Gannon, for his visionary and diligent stewardship since his appointment in 2007. Finally, I want to acknowledge the personal and collective commitment of An Taoiseach, Brian Cowen T.D., Tánaiste and Minister for Enterprise, Trade and Employment, Mary Coughlan T.D. and the Minister for Science, Technology, Innovation and Natural Resources, Conor Lenihan T.D., who have continued to place science and engineering research activity at the top of Ireland's competitiveness agenda.

In conclusion, 2008 saw SFI continuing to deliver on its SSTI targets and remaining on course in the recruitment and retention of top-class researchers. It was particularly encouraging to see SFI collaboration with other Government Departments, State Agencies and industry further strengthened during the year. Such pooling of resources skills and knowledge greatly facilitates the conversion of ideas and concepts into tangible, economically-beneficial outcomes. This remains the core goal of SFI.

Prof. Pat Fottrell, Chairperson

Tánaiste and Minister for Enterprise, Trade and Employment, Mary Coughlan T.D. announces substantial awards totalling €45.7 million over five years, through the SFI CSET Programme.

Pictured were Prof. Fergus Shanahan, Director APC, based at UCC; Prof. Stefan Decker, Director DERI, based at NUI Galway; Tánaiste and Minister for Enterprise, Trade and Employment Mary Coughan T.D.; Diarmuid O'Brien, Executive Director CRANN, based at Trinity College Dublin; and Prof Frank Gannon, Director-General of SFI.



Director General's Statement

Given the turbulent events in the global economy in recent times, the world has rapidly become a very different place. Scientific and engineering research now provides the means by which an economic upturn can be created and, importantly, sustained in the medium to long-term.

World-class scientific research is more than ever before part of Ireland's economic mainframe. A core function of SFI since its establishment eight years ago has been to strategically invest in those key scientific research activities most likely to yield economic benefits for Ireland, directly and indirectly

The Government's strategy for economic recovery Building Ireland's Smart Economy: *A Framework for Sustainable Economic Renewal*, published at the end of 2008, has at its core a sustained commitment to innovation, to attracting worldclass researchers to these shores, and to harnessing opportunities from diverse research areas. The fact that this commitment was reiterated at a time of increasing economic pressure underlines the strong commitment from the Irish Government. At a critical stage in determining Ireland's economic well-being, SFI is working steadfastly with Government and all stakeholders to achieve the goals set down for the coming years.

The past 12 months have seen unprecedented business levels in SFI, as it expands its programmes and continues to attract international researchers in the strategic areas of ICT and biotechnology. In 2008, the SFI saw its remit formally extended by Government to incorporate research in the fields of science and engineering underpinning sustainable energy and energy-efficient technologies (ENERGY). This means that Ireland can now invest in locallybased, high-guality research in this critical space. The challenge is in identifying strategic areas of energy research that SFI should invest in to bring about economic benefits. Energy presents both challenges and opportunities, and there is a strong belief that this area will play a key role in characterising the new Ireland over the next decade and beyond.



Prof. Frank Gannor Director General

As the Chairperson has indicated, the Indecon independent 'Value for Money' assessment of SFI's activities was very positive and endorsed the progress made by SFI in a very short space of time. Since the publication of the report SFI has made considerable progress in implementing the recommendations made by Indecon.

SFI is selling Ireland abroad as a hub for multidisciplinary research teams to conduct world-class research in close partnership with industry, by establishing focal points of excellence such as large-scale '*Centres for Science, Engineering and Technology*' (CSETs) and, more recently, medium-scale '*Strategic Research Clusters*' (SRCs). SFI by the end of 2008 had established nine CSETs and 17 SRCs which collaborated with over 125 distinct multi-national corporations and SME/indigenous companies. SFI supports world class research teams who work with over 300 companies, these include many blue chip multi-nationals; over 56,000 people are employed in these organisations in Ireland. In particular the nine CSETs and 17 SRCs are building highly successful collaborations with industry.

In April 2008, SFI announced the establishment of CLARITY a new Centre for Science, Engineering and Technology (CSET). This ground breaking research centre focuses on the so-called 'Sensor Web', which captures the intersection between two important research areas – Adaptive Sensing and Information Discovery. The new cutting-edge CLARITY CSET is a partnership between University College Dublin and Dublin City University, supported by research at the Tyndall National Institute (TNI) Cork. CLARITY will collaborate with leading multinationals and SMEs including: IBM, Vodafone, Ericsson, Foster-Miller, ChangingWorlds, Fidelity Investments and Critical Path, as well as national agencies, such as the Environmental Protection Agency, the Marine Institute and the National Museum of Ireland

In December, SFI allocated €45million for second-phase funding in three CSETs - Alimentary Pharmabiotic Centre (APC) at University College Cork; Centre for Research on Adaptive Nanostructures & Nanodevices (CRANN) at Trinity College, Dublin and Digital Enterprise Research Institute (DERI) at National University of Ireland Galway.



The Minister for Communications, Energy and Natural Resources, Mr Eamon Ryan TD addressed the SFI Board, May 26th 2008 following the extension of SFI's remit in the area of Sustainable Energy and Energy Efficient Technologies.

Professor Frank Gannon, Director General, SFI pictured with Eamon Ryan TD, Minister for Communications, Energy and Natural Resources and Professor Pat Fottrell, Chairperson, SFI at the SFI Board Meeting.

This investment was described by the Tanaiste and Minister for Enterprise, Trade and Employment, Mary Coughlan TD, as "an endorsement of their activities, partnerships and their ability to generate ideas and implement processes that are producing tangible results". The announcement also involved an additional investment of €14.5million from industry including GlaxoSmithKline, Alimentary Health, Hewlett-Packard, Intel, Nortel Networks (Ireland) Ltd, Cisco Systems Internetworking (Ireland) Ltd., FISC-Ireland Ltd, L M Ericsson Ltd. Storm Technology Ltd., Celtrak Ltd, Cyntelix Corporation Ltd, OpenLink Software (UK) Ltd and other partners.

In December, SFI approved the establishment of 5 new SRCs representing a \in 23.9million investment in ground-breaking, collaborative research activities involving seven academic institutions, 170 highly skilled personnel and 22 distinct companies.

SFI projects have facilitated substantial growth in the number of companies formally working with academic researchers.

SFI has been proactive in developing relations and enhancing the co-operation across government departments and state agencies. With this ecosystem the role of SFI is very clear as the national science funding agency and the co-operation between SFI, IDA, Enterprise Ireland, Forfas, Health Research Board (HRB) and the Higher Education Authority (HEA) is at a new, much more co-ordinated level in pursuit of the national objective of the SSTI. I wish to thank these organisations for their co-operation and assistance during the year.

Ireland's expanding science and engineering arenas

have been profiled globally in recent months. The international publication, The Scientist, published a special feature in July 2008 showcasing how Ireland's Lifescience culture has now become a vital part of the country's infrastructure (www. the-scientist.com/Ireland). The supplement highlighted policy, industry and research as the main areas of progress and profiled the key players in the rejuvenation of science in Ireland. Similarly, a 'State of the Nation: Science in Ireland' webinar, hosted by Science magazine, generated considerable interest from the US, Europe, India and beyond with over 1,500 people logging on to view.

Advanced economies such as Finland, Sweden and Switzerland typically invest over 3% of GDP in R&D (GERD-Government expenditiure on R&D). Many countries, some of which are direct economic competitors to Ireland (e.g USA, Singapore and Korea) have in the current climate identified the need to increase investment in scientific research. Ireland's current level of GERD, at approximately 1.5% is behind such competitors (and below the OECD level of 2.3%) but the Government in the recent budget has reiterated its commitment to the objective to reach 2.5% by 2013. It is worth noting that the Irish ratio of Public to Business investment (1:2) is in line with the best practice internationally. Therefore the Government's investment in research is leveraging further significant investment by industry.

The ongoing commitment by Government has, in particular, provided confidence for individual researchers and their teams, industry partners, the educational sector, Government agencies and prospective international investors. Ireland is, for the first time, now seen as an attractive location in which to conduct leading-edge research.

Prof. Frank Gannon, Director General



SFI Approach and Achievements in 2008

SFI was established to "invest, promote, develop and assist the carrying out of oriented basic research in strategic areas of scientific endeavour that concerns the future development and competitiveness of industry in the State." Therefore SFI invests in fundamental world class research, in areas of strategic importance and strength in the Irish economy. This investment in scientific and engineering research is focused on achieving a long-term economic and societal benefit for Ireland. SFI is therefore strengthening the quality and quantity of the scientific base on which high productivity, high technology market-driven investments must be developed.

The Strategy for Science Technology and Innovation (SSTI) 2006-2013 has set a range of very ambitious targets to enable Ireland to grow and develop as a knowledge based economy. SFI has a central and strategic role in implementing this Strategy. In addition, SFI has been allocated a pivotal role in the delivery of the Government's "Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal", published in December 2008. This document sets out a detailed framework for the management of the economy in both the short and medium term.

Strategic Investment

In the legislation establishing SFI two strategic areas were identified as Information and Communication Technologies (ICT) and Biotechnology (Bio) for investment in research that would have an economic impact. In 2008 the Government extended the SFI remit to include Sustainable Energy and Energy Efficient Technologies (Energy). SFI programmes have focused on developing these areas of research to bring the greatest benefit to Ireland's long-term competitiveness and economic development.



In November over 350 SFI Researchers gather in Kilkenny for the SFI Science Summit 2008-Convergent Worlds

Pictured at the SFI Science Summit 2008 were (L-R) Prof Frank Gannon, SFI Director General and keynote speaker Prof Dan Nocera, Henry Dreyfus Professor of Energy and Professor of Chemistry at the Massachusetts Institute of Technology.

"25 PhD students have left my group in the past decade. The majority of PhD graduates from my research team progress to successful careers in the pharmaceutical sector both in Ireland and internationally. 13 are employed in the pharmaceutical sector in Ireland – Pfizer, Novartis, GSK, Eli Lilly. Six are employed in the pharmaceutical sector internationally - Eli Lilly, Indianapolis; Novartis, Basel; and in start-ups in the UK. The availability of PhD graduates with the relevant skills sets has been essential in enabling many of these companies to attract strategic R&D activities to the Irish sites, especially in the area of Process Development."

Professor Anita Maguire, Department of Chemistry & School of Pharmacy, University College Cork.

SFI has focused on building world class human capital in scientific and engineering research which, combined with the work of the other state agencies, in particular IDA Ireland, Enterprise Ireland, Forfas, the Higher Education Authority and Health Research Board, will build new sources of competitive advantage for industry. This will ensure that Ireland becomes a competitive location for knowledge based enterprise with a view to sustaining competitiveness in the longterm.

Competitive

To accomplish its mission SFI makes awards to researchers based on the quality, excellence and strategic impact of their research proposals within the areas included in the SFI remit (ICT, Bio, and Energy) using a process of competitive Calls for Proposals. In arriving at its decisions, SFI utilizes its own in-house expert scientific personnel and external international research experts who evaluate the research proposals and make recommendations on whether the proposals should be funded or not (the "international peer review process"). The international peer review process, linked to a high internal skill base, is central to SFI's objective of excellence. In 2008, SFI received 450 applications across all programmes, and approximately 1,200 international reviewers participated in postal and site reviews for SFI. In certain SFI programmes such as the Centres for Science, Engineering and Technology (CSETs) and the Strategic Research Clusters (SRCs) agencies including IDA Ireland



In April 2008, Mr. Micheál Martin T.D, Minister for Enterprise Trade and Employment, announced the establishment of CLARITY a new SFI CSET.

Pictured were Prof Alan Smeaton DCU, Deputy Director of CLARITY CSET with Prof Frank Gannon, Director General SFI and Prof Barry Smyth, UCD Director of CLARITY CSET.

(IDA), Enterprise Ireland (EI), the Health Research Board, Forfás, the Higher Education Authority and others as appropriate play a direct role in assessing strategic impact and selection of proposals for funding.

Value for Money

As part of the Government's Value for Money and Policy Review Initiative the Department of Enterprise, Trade & Employment commissioned a "Value for Money Review of Science Foundation Ireland" from Indecon Economic Consultants. This review was published in July 2008. It highlighted that SFI has successfully targeted and attracted the highest quality research talent, both in Ireland and internationally. In addition, the report found that SFI-supported researchers were producing research outputs in the highest ranking international publications in their fields and also highlighted the wider economic impact of SFI research investment.

Indecon noted that it was still at an early stage to make a definitive judgment, however the Report demonstrated that SFI was delivering on all the activities in which it is engaged. SFI has been implementing the specific recommendations that were made which are particularly designed to strengthen the linkages between the researchers with the needs of industry and in increasing the monitoring of the awards which are made. As a result of this process, one particular example is the appointment of a member of the management team to the position of Head of Industry-Research Development with specific responsibility to drive industry research interactions and collaborations and an increased focus and encouragement of industry related activities by the researchers.

Researchers (Luke O'Neil and Kingston Mills) in Trinity College Dublin working on fundamental aspects of immunology, i.e. how the body protects itself from disease, received funding for their research from SFI. This gave rise to significant intellectual property which was then bundled into a start up company called Opsona Therapeutics. Opsona has successful secured a financial investment of \in 18m with a range of investors so as to allow it to develop into a product focused company.

"The success of Opsona is largely attributable to the critical financial support received from SFI since 2002. Opsona's establishment in 2004 came about as a direct result of the discoveries arising from our SFI-funded research up to that point. Without sustained support from SFI six or seven years ago, it is highly unlikely that we would ever have envisaged the creation of Opsona into what it has become today. SFI is, in essence, the genesis of Opsona," Co-founder of Opsona, Luke O'Neill, who is an SFI-funded researcher and Professor of Molecular Immunology at TCD.

In terms of the wider economic impacts of SFI, the Indecon Report found that collaboration between SFI researchers and industry has increased significantly and SFI's Centres for



Science, Engineering and Technology (CSETs), in particular, have engaged with a wide range of industrial and other partners. The Indecon Report stated" There is evidence that the CSETS, in particular, are playing an important role in building a world class research system in Ireland , as they are linking successfully with major multinationals as well as being used as a strong reference sell by IDA Ireland in their efforts to attract further international investment in High Tech sectors".

Training for the Knowledge Economy

A core objective of the SSTI is to increase the number of PhD graduates to ensure that Ireland has the knowledge, skills and creativity that will ensure that we have the economic capacity to translate ideas into valuable processes, products and services. At the core of this is increasing Ireland's human capital – ensuring that the Irish workforce has the high skills that modern hightech economies need.

The number of researchers within enterprise increased from 6,937 in 2001 to 8,304 in 2007, an increase of 20%. However, the number of PhD-qualified researchers has increased from 420 in 2001 to 1,191 in 2007 (an increase of 183% over the same period). There was a 43% increase between 2005 and 2007. Half of all research personnel employed since 2001 were PhD qualified researchers. In 2008, SFI directly supported 2,812 research jobs in teams where the leaders leveraged a further 3,076 jobs from other sources of funding. SFI research groups are playing a key role in supplying these highly skilled researchers required by both multinational and SMEs located in Ireland. In 2008, SFI supported research teams included 688 Post Doctoral Researchers and 1,156 PhD Students. Of the 208 Post Docs who departed SFI teams in 2008, 16% went into industry, 25% became lecturers and 35% went on to another Post Doc. 126 PhDs graduated from SFI teams in 2008 and 23% went into industry.

"Science Foundation Ireland have funded over the last 5 years a huge amount of R&D work and we've actually hired a significant number of graduates out of those programmes. Now if those programmes didn't exist we would have to go to other countries to try and bring graduates in so at the moment for our particular technology we've had to search up in Belfast we have ex Ericsson, ex Nortel employees and we're trying to blend them with PhD students coming through from Irish graduation programmes". Statement by John Dunne co-founder of Intune Networks (high tech company) on RTE Drive Time on 6th February 2009, when talking about support received from Government to support high tech companies.



Announcement of the SFI/Dell Scholarship Awards by Tánaiste and Minister for Enterprise, Trade and Employment, Mary Coughlan T.D. at the Merrion Hotel, Thursday 23 October 2008

Pictured with the SFI/Dell Young Women in Engineering Scholars 2008 were (L-R) Prof Frank Gannon, SFI Director General, Mary Coughlan T.D. Tánaiste and Minister for Enterprise, Trade and Employment and Mr Dermot O'Connell, GM, Dell.



Academic Outputs from SFI Research Groups In 2008 arising from SFI-funding



IP Exploitation arising from SFI Funded Research Groups during 2008



Patents filed by & granted to SFI Researchers in 2008 Number of Patents



Scientific Excellence

Publications and Citations data provide a key indicator for academic research excellence. They are a significant pull factor for investment (venture capital and multinational) as investments seeks to identify locations of excellence that will enhance product development and processes. The SFI focus on scientific excellence has contributed significantly to Ireland's increased reputation and improved performance in publication and citation data.

SFI researchers have driven Ireland's bibliometric output from well below the European average in 2003 to well over that average currently. Ireland has moved from 647 publications per million population (below the EU average) to 1,100 (34% above the EU average). More importantly, the quality of that output has driven Ireland from a global citation ranking of 27th in 2003 to 17th in 2008. SFI funded researchers published 1,483 refereed original papers, 146 refereed reviews, 24 books, 129 book chapters and 1,440 conference proceedings in 2008.

Engagement with Industry/Technology Transfer

SFI supports world class research teams who work with over 300 companies, these include many blue chip multinationals; over 56,000 people are employed in these organisations in Ireland. In particular the nine CSETs and 17 SRCs are building highly successful collaborations with industry.

SFI has made a major contribution to many of the key R&D projects established by Enterprise Ireland and IDA Ireland. For example 56 new projects secured by IDA Ireland in 2008 (compared to 39 such projects in 2003) were R&D projects which have been attracted here due to significant involvement with world class researchers funded by SFI. An example of this is IBM's recent decision to locate one of its Collaboratories in Ireland based upon the expertise of three SFI research groups brought to Ireland over the last eight years (David Cotter, Chris Dainty and Donal O'Mahoney.

In 2008, SFI investment in academic research continued to act as a key reference sell for IDA Ireland in attracting/retaining high tech RD&I to Ireland. SFI groups were integral to 19 of the 56 IDA RD&I wins and indirectly involved in many more. For Irish owned companies, the track record is continuing to develop and SFI is working closely with Enterprise Ireland to achieve this. A A

In 2008, SFI researchers generated 135 invention disclosures, 95 patents were pending (up from 82 in 2007), 13 patents were awarded (up from 11 in 2007) and 22 licenses were generated (up from 8 in 2007).

Based on the SFI Census 2008, SFI-funded researchers are now involved in over 466 collaborations with industry – 122 of these have a formal legal basis of operation. IDA Ireland and Enterprise Ireland have played crucial roles in these and other programmes, and in securing all-important interaction with enterprise both nationally and internationally.

In 2008, SFI researchers collaborated with 173 Multinational Corporations (MNC) and 106 SMEs; licensing 22 specific technologies to a subset of them. In addition, 122 of the MNC and SME collaboration are underpinned by a formal legal agreement with industry.

SFI researchers established three spin out companies during 2008 - Evolvability, Socowave and HeyStaks Technologies which was one of four new initiatives to share the Eircom Web Innovation Fund. The focus of SFI is on the research groups that it supports and these groups should be viewed as an enabling infrastructure for the industries which are important to Ireland. Enterprise Ireland and IDA Ireland are charged with supporting and developing these industries directly and therefore SFI has to be viewed as a contributor to those actions rather than directly responsible for them. The indirect activity of SFI however is essential in the judgment of SFI's overall impact and performance.

Fiber optic is the future of broadband and will eventually be available to every home and business in Ireland. The David Cotter group (SFI Pls, Tyndall National Institute, Cork) is world-leading in fiber optic data transmission. They have developed a new approach called 'Turbo-switch', which has enabled error-free data conversion at rates as high as 170 Gbit per second. The Cotter group, originally recruited from BT Labs and later Corning Research collaborate with Alcatel, BT, Corning, Ericsson, Siemens; with Intel, Lucent and Xilinx; with indigeneous photonics companies Intune Networks, Eblana Photonics, and SensL. The Cotter group is part of the IBM Exascale collaboratory.



Summary of Industry Collaborations



Academic Industry Research Collaboration - CSETs & SRCs

- SFI has establishment 9 CSETS and 17 SRCs
- Three of the CSETS were approved 2nd term funding and five new SRCs were approved at the end of 2008
- 9 CSET are collaboration with 78 distinct companies
- 17 SRCs are engaged in 79 industry partnerships

Agilent Technologies Airtricity Aixtron AG Alcatel-Lucent Alchemy Software Development Alimentary Health Ltd Åmic, AB Analog Devices APC Biotechnologies Services Ltd Arup Consulting Engineers Audit Diagnostics Ireland Bausch & Lomb Becton Dickinson, Inc. Biomining Inc. Biosurfit Biotrin International Bosch Boston Scientific Bristol Myers-Squibb British Telecom BT (UK) BT Ireland Cellix Ltd Cellology Ltd Celtic Catalysts Celtrak Ltd Changing Worlds Charles Rivers Laboratories CISCO Systems Internetworking (IRELAND) Citco (Ireland) Covidien Creganna Critical Path (Software), Inc Cylon Controls Cyntelix Corporation Ltd Dai Nippon De Puy Debian Decawave Dionex Corporation Dyomics GmbH Eblana Photonics Ehrke & Partner Elastin Specialties Eli Lilly Enbio Materials Enfer Scientific Ltd. eSpatial Solutions Fairview Analytics FAST Search and Transfer Fidelity Investments (FISC) Firecomms Foster Miller, Inc Fugro FXPAL Genzyme Ireland Glantreo GlaxoSmithKline (GSK) Glebe Laboratories Global Currency Exchange Helix Health Management Helsinn Chemicals Ireland Hewlett Packard (HP) Holfeld Plastics, Hospira, Inc. HSG Technischer Service GmbH Humana IBM Idiro Technologies Impedans, Intel Intervet Schering Plough Animal Healthcare Intune Networks Inverness Medical Innovations Iona Technologies Janssen Pharmaceutical Ltd KUGLER MAAG CIE GmbH L M Ericsson Limited Lexas Research LM Ericsson Marigot Medtronic Merck Sharpe & Dohme Merrion Pharmaceuticals Microsoft Motorola NEC Communications Systems Neo Suricals Norkom Technologies Nortel Networks Openlink Software Opsona Theapeutics Oracle Pavement Management Services Pfizer Pfizer Animal Healthcare Proxy Biomedical Robio Systems Ltd Rovsing Saab Combitech SAFC Hitech Ltd (Sigma Aldrich Fine Chemicals) Samsung Electronics Schering Plough Science and Technology Research Partners Ltd SDL Enterprise Technology Seagate SensL Siemens Corporate Research (USA) Sigmoid Biotechnologies Smith & Nephew Snap-on Diagnostics Socowave Speechstorm Sportracker Storm Technology Limited Straatum Symantec TDK Tecnomen Telefonica R&D Thermo Fisher Valentia Vector FM / Spokesoft VistaTEC Vitalograph Vodafone VTT Finland Walt Disney Imagineering Research & Development Inc Waters Technology Ireland Ltd Xilinx Research Labs Zerusa Zignals Inc



Global Reputation

The SSTI has as a vision to make Ireland by 2013 internationally renowned for the excellence of its research and to be at the forefront in generating and using new knowledge for economic and social progress within an innovation driven culture

SFI has achieved considerable success in the short time since it was established in contributing towards the building of Ireland's reputation as a top quality location for research that will drive economic development. The Government investment in research through SFI allows Ireland to engage at the centre of global science and engineering activities. Technology will be critical in feeding, connecting, healing, fuelling and housing the world's population, and without investment Ireland will not be involved in shaping the technologies of the future.

SFI supports international meetings held in Ireland for intensive inquiry and collaboration on topics of timely scientific importance related to fields that SFI supports. During 2008 SFI supported 28 conferences/workshops these included – the Europtrode IX: Ninth International Conference on Optical Chemical Sensors and Biosensors (DCU - 400 delegates); Agricultural Biotechnology International Conference (ABIC) 2008 (UCC - 1,000 delegates); 4th International Conference on Bioengineering and Nanotechnology (UCD – 300 delegates); and 14th International Conference on Solid Films and Surfaces (CRANN TCD – 400 Delegates).

Through the ETS Walton Visitor Award 24 international researchers participated in short term visits to Ireland.

Over 350 leading SFI-funded researchers attended a two-day Science Summit in Kilkenny on the theme "Convergent Worlds" which encouraged and fostered new collaborations between SFI researchers, and facilitated high-level discussion and debate on a broad spectrum of research areas. The conference was addressed by key note international speakers -

- Prof. Dan Nocera, an international expert in energy research, from Massachusetts Institute of Technology (MIT);
- Prof. Dr. Robert Huber, Nobel Prize winner for structural biology; and
- Prof. Iain Mattaj, Director General of EMBL, one of the world's most successful research organisations that brings together scientists with diverse backgrounds in an interdisciplinary environment.

SFI supported a feature in Science magazine on Careers in Ireland together with a highly successful Science Careers webinar entitled "State of the Nation: Science in Ireland". The webinar was broadcast worldwide with over 1,500 people registering. SFI supported, with the other development agencies, a significant supplement on Lifescience in Ireland which was published by The Scientist in July 2008.

President McAleese Announced that Dr. Daniel Kelly would be the 2008 recipient of the President of Ireland Young Researcher Award (PIYRA) at ceremony in Áras an Uachtaráin on 12 June 2008.

Pictured with President McAleese at the award presentation were Dr. Daniel Kelly, SFI PIYRA 2008 award recipient and Prof. Frank Gannon, SFI, Director General





Overview of Investment Activity in 2008

SFI approved 479 new awards, across 19 programmes to 13 research bodies in 2008. Total payments of grants to research bodies in 2008 amounted to just over €160 million

€77m was awarded to research projects under the SFI Principal Investigator Programme.

SFI approved €16.4m for the establishment of CLARITY a new Centre for Science, Engineering and Technology (CSET). This ground breaking research centre focuses on the so-called 'Sensor Web', which captures the intersection between two important research areas – Adaptive Sensing and Information Discovery

SFI approved €45.7million in 2nd term funding to three existing world-class research CSETs

- Prof. Fergus Shanahan, Director of the Alimentary Pharmabiotic Centre (APC) based at University College Cork which is focusing on research in gastrointestinal health;
- Prof. John Boland, Director of CRANN, the Centre for Research on Adaptive Nanostructures and Nanodevices which is hosted by Trinity College Dublin and is working in the area of Nanotechnology;
- Prof. Stefan Decker, Director of DERI, the Digital Enterprise Research Institute, based at NUI Galway where the team are researching technologies that will underpin the next generation of the World Wide Web – the Semantic Web.

SFI approved five new Strategic Research Clusters (SRCs), representing a €23.9million investment in ground-breaking, collaborative research activities involving seven academic institutions and 22 companies. The lead Principal Investigators of the five new SRCs are:

- Prof. Lokesh Joshi of NUIG Alimentary Glycoscience Research Cluster (AGRC);
- Prof. Pádraig Cunningham of UCD -Clique SRC;
- Dr. William Donnelly of Waterford Institute of Technology - Federated, Autonomic Management of End-to-end Communication Services (FAME SRC);
- Prof. Miles Turner of DCU Precision SRC and
- Prof. Brett Paul, also from DCU Irish Separation Science Cluster.

Under the Research Frontiers Programme, SFI awarded funding of €23 million for 143 research projects across 10 Higher Education Institutes (HEIs).

470 undergraduate science students from Ireland and abroad participated in the Undergraduate Research Experience and Knowledge Award (UREKA), undertaking research projects in Irish HEIs during the summer months.

The 2008 recipient of the President of Ireland Young Research Award (PIYRA) was Dr. Daniel Kelly, a lecturer at Trinity College Dublin, whose research focuses on regenerative adult stem cell based technology to develop alternative sources of cells for cartilage repair.

The Tánaiste and Minister for Enterprise, Trade and Employment, Ms. Mary Coughlan TD announced the 10 winners of the 2008 Science Foundation Ireland/Dell Young Women in Engineering Scholarship Awards.

Engaging with the general public and young people in particular is a core element of SFI's education and outreach activities – SFI once again participated in the BT Young Scientist Competition with the support of SFI CSETs. In addition CSETs organised and undertook a range of outreach activities including seminars, special websites, competitions, the development of games, etc. to encourage and engage young people and the general public with science and engineering.

During the Summer 37 second-level teachers took part in the Secondary Teacher Assistant Researchers (STARs) programme across eight universities.



SFI Investment by Sector

(Total commitments by SFI since 2000)

SFI invests in academic research and research teams that generate new knowledge, leading edge technologies and competitive enterprise in the fields of science and engineering underpinning Lifescience, Information & Communications Technology (ICT) and Sustainable Energy and Energy-Efficient Technologies (ENERGY).

Since its establishment SFI has committed in excess of €1.2 bn for scientific research

SFI Total Commitments - End 2008

	%
Nanotechnology	10.0
Photonics	5.0
IC Research / Semiconductors	8.7
Advanced Manufacturing	3.0
Transmission Systems	3.3
Storage	1.7
Software Engineering & Artificial Intelligence	5.4
Networking & Communications Systems	4.6
Knowledge & Web Based Systems	6.1
Computer Modelling & Visualisation Systems	4.3
Information Systems	1.5
Language Technologies	2.1
Agri-food	6.0
Bioinformatics/Systems Biology	5.0
Mol. & Cell Biology	12.0
Immunology	5.4
Microbiology	1.5
Neuroscience	4.3
Sensors/Devices	6.6
Pharma Chem	3.5
	100.0



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 SFI became subject to the Ethics in Public Office Acts 1995 and 2001 on the 1 January 2005. SFI has complied with the provisions of the Act.
- 3 Freedom of Information Act, 1997 and Freedom of Information (Amendment) Act, 2003.

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

4 Prompt Payment of Accounts Act, 1997 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. The payment practices of SFI, as required by the Act, are reported on below for the year ended 31 December 2008. It is the policy of SFI to ensure that all invoices are paid promptly. Specific procedures are in place that enable it 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. There were no late payments during 2008.

5 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, e.g. recruitment, promotion, training, use of nondiscriminatory 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.

6 Safety, Health and Welfare at Work Act 1989 In accordance with the above Act, SFI in consultation with Forfás implements appropriate measures to protect the safety, health and welfare of all employees and visitors within its offices.

7 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 2008, no complaints were received under the Charter.



Organisation Chart

SFI has an approved complement of 54 full-time staff







Science Foundation Ireland Financial Statements 2008



Report of the Comptroller and Auditor General for presentation to the Houses of the Oireachtas

I have audited the financial statements of Science Foundation Ireland for the year ended 31 December 2008 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.

Respective Responsibilities of the Board and the Comptroller and Auditor General

Science Foundation Ireland is responsible for preparing the financial statements in accordance with the Industrial Development (Science Foundation Ireland) Act 2003 and for ensuring the regularity of transactions. It prepares the financial statements in accordance with Generally Accepted Accounting Practice in Ireland. The accounting responsibilities of the Members of the Board are set out in the Statement of Board Members' Responsibilities.

My responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland).

I report my opinion as to whether the financial statements give a true and fair view, in accordance with Generally Accepted Accounting Practice in Ireland. I also report whether in my opinion proper books of account have been kept. In addition, I state whether the financial statements are in agreement with the books of account.

I report any material instance where moneys have not been applied for the purposes intended or where the transactions do not conform to the authorities governing them.

I also report if I have not obtained all the information and explanations necessary for the purposes of my audit.

I review whether the Statement on Internal Financial Control reflects Science Foundation Ireland's compliance with the Code of Practice for the Governance of State Bodies and report any material instance where it does not do so, or if the statement is misleading or inconsistent with other information of which I am aware from my audit of the financial statements. I am not required to consider whether the Statement on Internal Financial Control covers all financial risks and controls, or to form an opinion on the effectiveness of the risk and control procedures. I read other information contained in the Annual Report, and consider whether it is consistent with the audited financial statements. I consider the implications for my report if I become aware of any apparent misstatements or material inconsistencies with the financial statements.

Basis of Audit Opinion

In the exercise of my function as Comptroller and Auditor General, I conducted my audit of the financial statements in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board and by reference to the special considerations which attach to State bodies in relation to their management and operation. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures and regularity of the financial transactions included in the financial statements. It also includes an assessment of the significant estimates and judgments made in the preparation of the financial statements, and of whether the accounting policies are appropriate to Science Foundation Ireland's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations that I considered necessary in order to provide me with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming my opinion I also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In my opinion, the financial statements give a true and fair view, in accordance with Generally Accepted Accounting Practice in Ireland, of the state of Science Foundation Ireland's affairs at 31 December 2008 and of its income and expenditure for the year then ended.

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.

- Buck

John Buckley Comptroller and Auditor General June 2009



Statement of Board Members' Responsibilities For 2008 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 Enterprise, Trade and Employment with the consent of the Minister for Finance, 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:

Patrick Fottrell

Chairman

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Date

Frank Gannon Director General

Date



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 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 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.
- Requiring senior management to put in place risk assessment and risk management processes for the Audit Committee.

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.

Science Foundation Ireland has established an internal audit function, in accordance with the Framework Code of Best Practice set out in the Code of Practice for the Governance of State Bodies, which reports directly to the Audit Committee. The work of internal audit is informed by analysis of the risk to which the body is exposed and, in 2008, the internal audit plan was based on this analysis. The analysis of risk and the internal audit plans are endorsed by the Audit Committee. The Audit Committee meets, on average, at least six times a year and reviews the outcome of the specific internal audits and the ongoing adequacy and effectiveness of the system of internal financial control. The Board's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of the internal auditor and the Audit Committee which oversees the work of the internal auditor and the control exercised by the executive managers within SFI who have responsibility for the development and maintenance of the financial control framework.

I confirm that the Board conducted a review of the effectiveness of the system of internal financial controls for 2008.

Signed on behalf of the Board

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Patrick Fottrell Chairman



Accounting Policies

(1) Basis of Accounting

The Financial Statements have been prepared under the historical cost convention in the form approved by the Minister for Enterprise, Trade and Employment with the consent of the Minister for Finance under the Industrial Development (Science Foundation Ireland) Act 2003. 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 represents actual cash receipts in the year.

(3) Fixed Assets

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

(4) Capital Account

The Capital Account represents 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.

(6) Superannuation

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

(7) Operating Leases

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

(8) Research Grant Payment

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



Income and Expenditure Account For the year ended 31 December 2008

		2008	2007
	Notes	€′000	€′000
Income			
Oireachtas Grant	1	170,418	164,066
Other Income	2	234	1,042
Profit on Disposal of Fixed Assets		5	-
		170,657	165,108
Expenditure			
Pay	3	3,833	3,399
Administration Expenses	4	5,844	4,770
Depreciation	6	128	247
Grants	5	160,138	156,622
		169,943	165,038
Operating Surplus for Vear		714	70
Operating Surplus for Year	1.4	/14	/0
Contribution to the Exchequer	14		(900)
Net Surplus/(Deficit) for the Year		714	(830)
Balance at beginning of Year		(603)	65
Transfer from Capital Account	7	4	162
Accumulated Surplus/(Deficit) at end of Year		115	(603)

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

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

On behalf of the Board:

Patrick Fottrell Chairman

Patrick Folhelt

Date

Frank Gannon **Director General**

Date



Balance Sheet As at 31 December 2008

		2008	2007
	Notes	€′000	€'000
Fixed Assets			
Tangible Fixed Assets	6	133	137
Current Assets			
Cash at Bank		259	439
Accounts Receivable	8	155	62
		414	501
Accounts Payable	9	299_	1,104
Net Current Assets		115	(603)
Net Assets/(Liabilities)		248	(466)
Represented By:			
Capital Account	7	133	137
Income and Expenditure Account		115	(603)
		248	(466)

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

On behalf of the Board:

Patrick Fottrell Chairman

Patrick Folhelt

Date

Frank Gannon Director General

Xen

Date



Cash Flow Statement For the year ended 31 December 2008

		2008	2007
	Notes	€′000	€′000
Reconciliation of Surplus/(Deficit) for Year to			
Net Cash Flow from Operations			
Surplus/(Deficit) for Year		714	(830)
Bank Interest	2	(234)	(142)
(Profit)/Loss on Disposal of Fixed Assets		(5)	0
Depreciation Charge	6	128	247
(Increase)/Decrease in Accounts Receivable	8	(93)	31
(Decrease)/Increase in Accounts Payable	9	(805)	902
Net Cash Flow from Operations		(295)	208
Cash Flow Statement			
Net Cash Flow from Operations		(295)	208
Returns on Investment and Servicing of Financ	e		
Bank Interest	2	234	142
Cash Flow before Capital Expenditure		(61)	350
Capital Funding			
Receipts from Sale of Tangible Fixed Assets		17	-
Purchase of Tangible Fixed Assets	6	(136)	(85)
(Decrease)/Increase in Cash		(180)	265
Reconciliation of Increase in Cash to Cash at Ba	ink		
Movement in Cash for the Year		(180)	265
Cash at Bank at 01 January		439	174
Cash at Bank at 31 December		259	439



Notes to the Accounts For the year ended 31 December 2008

Oireachtas Grant	2008 €′000	2007 €'000
Pay	4,369	3,568
Administration Expenses	5,010	4,776
Research Grants	161,039	155,722
	170,418	164,066

Under Section 35 of the Industrial Development (Science Foundation Ireland) Act, 2003, the aggregate amount of grants made by the Minister to Forfás and its Agencies, to enable them to discharge their obligations and liabilities shall not exceed €3,400,000,000. At 31 December, 2008 the aggregate amount so approved was €3,325,007,030.

2 Other Income

3

Bank Interest	234	142
Research Grant Refunded - (See Note (14), below)	0	900
Total	234	1,042
Рау		
Pay Costs comprise:		
Wages and Salaries	3,532	3,148
Social Welfare Costs	291	241
Superannuation Costs	10	10
Total	3,833	3,399

SFI received an increase of 10 in its sanctioned positions in 2008 and continued the process of filling all vacant positions during the year.

Sanctioned Positions	54	44
Full Time Employed (at year end)	50	37
Temporary Staff Employed (at year end)	1	6
Total	51	43



		2008 €′000	2007 €'000
4	Administration Expenses		
	Board Members' Remuneration and Expenses	235	217
	Programme Management	1,236	1,389
	Facilities	805	816
	Professional Fees	900	274
	Marketing Promotion & PR	1,420	960
	IT Support & Infrastructure	560	490
	Travel & Subsistence Costs	91	164
	HR Management	284	202
	Office Furniture & Equipment	16	25
	General Office Expenses	281	217
	Audit Fee	16	16
	Total	5,844	4,770
5	Grants		
	Biotechnology Grants	69,673	60,010
	Information and Communications Technology Grants	67,821	70,252
	Research Frontiers Grants	22,644	26,360
	Total	160,138	156,622
	Grants are payable to Irish third level institutions to carry out world class basic research projects.		
	Grant Commitments		
	Outstanding Grant Commitments as at 01 January	411,317	208,685
	Grants Approved during the year	243,548	365,349
	Decommitments during the year	(17,104)	(6,095)
	Grant Payments made in the year	(160,138)	(156,622)
	Outstanding Commitments as at 31 December	477,623	411,317



6	Tangible Fixed Assets					
		Computer	Motor	Fixtures &	System	
		Equipment	Vehicles	Fittings	Development	Total
		€′000	€′000	€′000	€′000	€′000
	Cost					
	At 1 January 2008	507	50	187	383	1,127
	Additions	79	47	10	-	136
	Disposals	(78)	(50)	-	-	(128)
	At 31 December 2008	508	47	197	383	1,135
	Depreciation					
	At 1 January 2008	412	38	157	383	990
	Charge for Year	103	12	13	-	128
	Disposals	(78)	(38)	-	-	(116)
	At 31 December 2008	437	12	170	383	1,002
	Net Book Amount					
	At 1 January 2008	95	12	30	-	137
	Net Movement for Year	(24)	23	(3)	-	(4)
	At 31 December 2008	71	35	27	-	133

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

(i)	Computer Equipment & Systems Development	3 years
(ii)	Motor Vehicles	4 years
(iii)	Fixtures & Fittings	5 years

Assets in course of construction are depreciated when commissioned.



7	Capital Account	2008 €′000	2007 €′000
	At 1 January	137	299
	Transfer (to) Income & Expenditure Account		
	To fund Fixed Asset acquisitions	136	85
	Cost of Disposals	(128)	-
	Amortised in line with asset depreciation	(128)	(247)
	Depreciation on Disposals	116	-
	Net Movement	(4)	(162)
	At 31 December	133	137
8	Accounts Receivable		
	General Debtors	33	15
	Prepayments	122	47
	Total	155	62
9	Accounts Payable		
	General Creditors	202	28
	Accruals	64	152
	Interagency Balance	33	24
	Total	299	1,104

Interagency Balance relates to the balance owed by Science Foundation Ireland to Forfás at 31 December 2008, being the difference between the amount of money paid to Forfás by Science Foundation Ireland and the actual money spent by Forfás on behalf of Science Foundation Ireland.

10 Commitments under Operating Leases

Science Foundation Ireland currently has no commitments under operating leases on the building, but pays rent to Forfas as a contribution to the lease costs incurred by Forfás.

11 Taxation

Section 227 of the Taxes Consolidation Act, 1997, exempts SFI from further taxation on Case IV and Case V rental income in excess of that deducted at source.

12 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 Department of Finance in relation to the disclosure of interests by Board Members and these procedures have been adhered to by Science Foundation Ireland during the year.



13 Contingencies and Legal Actions

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

14 Contribution to the Exchequer

In accordance with public finance procedures receipts in respect of grant refunds and surpluses on pay and administration activities, to the extent that they exceed the Foundation's expenditure requirements are refundable to the Exchequer

	2008 €′000	2007 €′000
Research Grant Refunded	0	900
	-	900

15 Approval of Financial Statements

The Financial Statements were approved by the Board of Science Foundation Ireland on 30th March 2009.



Grant Commitments and Payments Analysis 2008

€′000

2008 Payments by Institution

Trinity College Dublin	34,495
University College Cork	25,650
University College Dublin	22,923
NUI Galway	21,369
Tyndall National Institute	18,239
Dublin City University	14,478
NUI Maynooth	8,574
University of Limerick	6,687
Royal College of Surgeons of Ireland	3,133
Dublin Institute of Technology	1,526
Waterford Institute of Technology	1,497
Dublin Institute for Advanced Studies	568
Teagasc	324
Cork Institute of Technology	207
Dundalk Institute of Technology	170
Institute of Technology Sligo	117
Institute of Technology Tallaght	117
Tralee Institute of Technology	64
Total Payout	€160,138

2008 Payments by Programme

	£ 000
Principal Investigators	43,081
CSET	31,197
Research Frontiers Programme	26,228
Centres	15,154
Stokes Programme	8,515
E-Journals	8,250
Strategic Research Clusters	7,293
Research Professorship	6,390
President of Ireland Young Researcher Award	d 3,202
UREKA Site	2,551
Maths Initiative	2,463
ETS Walton Visitor Award	2,089
PICA	1,137
Industrial Supplement	702
Short Term Travel Fellowship	498
STAR Supplement	435
Conference & Workshop	349
European Research Council	230
North-South supplement	176
Engineering - Lectureship	98
Women in Science & Engineering Research	76
US-Ireland	25
Total Payout 🗧	160,138

£'000

2008 Grant Commitments by Institution

	€′000
Trinity College Dublin	49,344
NUI Galway	47,802
University College Dublin	43,604
University College Cork	39,167
Dublin City University	22,705
Royal College of Surgeons of Ireland	10,582
NUI Maynooth	10,038
Waterford Institute of Technology	7,599
Tyndall National Institute	5,873
University of Limerick	4,317
Cork Institute of Technology	1,368
Dublin Institute for Advanced Studies	739
Dublin Institute of Technology	408
Total	243,548

2008 Grant Commitments by Institution

Number of Awards by Institution

Trinity College Dublin	111
University College Dublin	89
University College Cork	72
NUI Galway	64
Dublin City University	39
NUI Maynooth	35
Tyndall National Institute	22
University of Limerick	20
Royal College of Surgeons of Ireland	18
Dublin Institute for Advanced Studies	3
Dublin Institute of Technology	3
Cork Institute of Technology	2
Waterford Institute of Technology	1
Total	479

2008 Grant Commitments by Programme*

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	€′000
CSET	78,320
Principal Investigators	77,464
Srategic Research Clusters	30,437
Research Frontiers Programme	29,840
Centres	7,390
Engineering Professorship &	
Lectureship Programme	5,850
Research Professor Recruitment Award	3,330
ETS Walton Visitor Award	2,961
UREKA	2,779
President of Ireland Young Research Award	1,543
General Supplement	1,091
Short Term Travel Fellowship	512
STAR Supplement	435
North-South Supplement	432
Conference & Workshop Programme	404
Industrial Supplement	393
European Research Council	230
Women in Science & Enginneering Research (W	ISER) 108
US-Ireland	28
Total	243,548

2008 Grant Commitments by Award Programme Number of Awards by Programme*

Research Frontiers Programme	147
UREKA	68
Short Term Travel Fellowship	56
Principal Investigators	55
STAR Supplement	37
Conference & Workshop Programme	28
ETS Walton Award	24
Women in Science & Enginneering Research (WISER)	15
CSET	7
US-Ireland	7
Engineering Professorship & Lectureship Programme	9
North-South Supplement	5
Strategic Research Clusters	5
President of Ireland Young Research Award	4
Centres	3
Research Professor Recruitment Award	3
European Research Council	2
General Supplement	2
Industrial Supplement	2
Grand Total	479

*Figures include Supplementary Awards



Notes

Design & Production Baseline CS

Research for Ireland's Future

Science Foundation Ireland

Wilton Park House Wilton Place Dublin 2 Ireland

t: + 353 1 607 3200 f: + 353 1 607 3201 e: info@sfi.ie w: www.sfi.ie





