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2011

## To the Minister for Jobs, Enterprise and Innovation

Pursuant to the Industrial Development Act, 1993, Forfás herewith presents its report and accounts for the year ended 31 December 2011.



Eoin O'Driscoll

Chairman



Martin Shanahan

Chief Executive





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# About Us

## About Us

Forfás is the national policy advisory board for enterprise, trade, science, technology and innovation.

In addition to its primary policy functions, Forfás activities in 2011 included awareness<sup>1</sup>, accreditation and shared corporate services.



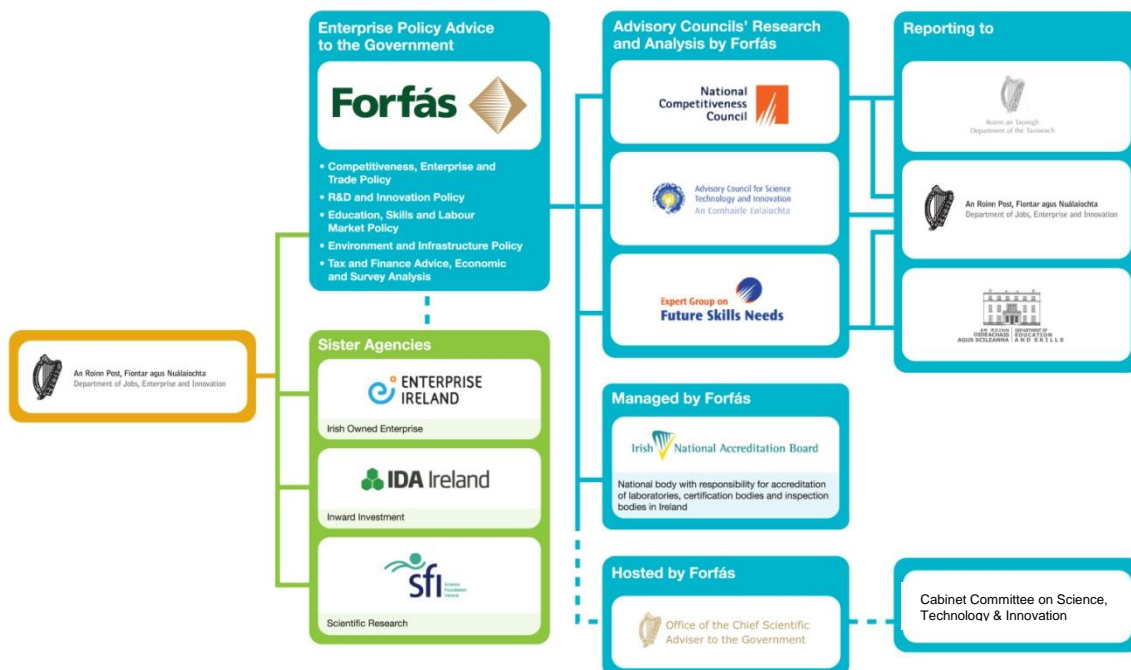
### Policy Analysis and Advice

Forfás is an agency of the Department of Jobs, Enterprise and Innovation (DJEI), and works closely with DJEI and Forfás' sister agencies, Enterprise Ireland, IDA Ireland and Science Foundation Ireland to ensure the coherence of policies across the enterprise development agencies in support of enterprise growth and job creation.

<sup>1</sup> During 2011 Forfás managed Ireland's national science awareness programme, Discover Science and Engineering (DSE). On 1 January 2012 responsibility for the management of the DSE programme transferred to Science Foundation Ireland.

Forfás provides the Minister, DJEI and Government with independent policy advice in a range of policy areas from an enterprise perspective. It links private sector enterprises and the public system and has individuals from both the private and public sectors represented on the Board. Many of the policy areas which impact on enterprise are within the Minister’s brief and responsibility for others reside with other ministers and departments, but have a direct or indirect impact on enterprise development. This requires Forfás to work across government departments and agencies.

**Forfás, its Sister Agencies and Advisory Councils**



**Focus 2011**

Forfás policy advice in 2011 addressed four overarching policy areas of critical importance to the success of enterprise in Ireland and our work is detailed in the Activities Section of this report.

<b>Enterprise</b>	Supporting the development of sustainable enterprises and jobs
<b>Knowledge &amp; Innovation</b>	Making research and technology work for business and Ireland
<b>Competitiveness</b>	Ensuring Ireland is a good place to do business
<b>People</b>	Building a highly skilled, talented and flexible labour force



### **Enterprise - Supporting the development of sustainable enterprises and jobs**

Ireland has a strong base of enterprise, both indigenous and foreign owned, and a culture that encourages companies to develop and expand. Working with the enterprise development agencies and a broad range of stakeholders Forfás delivers policy advice across a broad range of enterprise issues to contribute to an environment conducive to successful, sustainable enterprises.

### **Knowledge and Innovation - Making research and technology work for business and Ireland**

Innovation has no boundaries. It can come from suppliers and customers, competitors and employees, in Ireland or internationally. It can apply to any aspect of a business - new or improved products, services, technology applications, processes, designs and organisation structures. Innovation is one of the essential factors which will define the future success of enterprises in Ireland.

Working with DJEI and other government departments, Forfás contributes to ensuring that science, technology and innovation policy delivers growth and jobs for Ireland by assembling and analysing a strong evidence base on which to provide policy advice on key national and international STI issues.

### **Competitiveness - Ensuring Ireland is a good place to do business**

Our ability to compete in international markets and grow exports of high value added goods and services is perhaps the most critical condition for our future economic prosperity and standard of living. While recent improvements in our international competitiveness are welcome, we need to stay focused on reducing costs in the economy, increasing productivity, ensuring our trade policies are best suited to success in international markets and that public capital investment is directed to areas that will underpin future enterprise development. Forfás itself, and through its work with the National Competitiveness Council, delivers a range of research, analysis and advice on issues affecting our national competitiveness and focused on protecting our attractiveness as a location to do business.

### **People - Building a highly skilled, talented and flexible labour force**

Continued strategic investment in the development of our people is an essential component in Ireland's economic success. Forfás advises on policies that ensure Ireland provides education, training and upskilling that meets the needs of current and future enterprises and that support labour market flexibility.

Forfás itself, and through its work with the Expert Group on Future Skills Needs, continues to support policies aimed at the development of Ireland's people by providing a range of analysis and advice on the skills needs of Irish enterprises and on how Ireland can address the upskilling needs of our labour force.

### Policy Support

As well as ongoing policy work, Forfás provides the Minister and DJEI with responsive, real-time policy advice on a broad range of emerging issues. Forfás also supports DJEI in the promotion and implementation of the outcomes of its advice.

Forfás manages the work of and provides research and analytical support to the Advisory Council for Science, Technology and Innovation, the Expert Group on Future Skills Needs and the National Competitiveness Council.

Forfás has a coordinating role in relation to the functions of its sister agencies, Enterprise Ireland, IDA Ireland and Science Foundation Ireland. Forfás also evaluates enterprise policy interventions.

## Awareness, Accreditation and Corporate and Shared Services

### Awareness

During 2011 Forfás managed the national awareness programme, Discover Science and Engineering (DSE). This programme delivers a focused, strategic and quantifiable awareness campaign which aims to:

- Increase the number of students studying the physical sciences and mathematics - essential skills for the development of Ireland as a knowledge based economy;
- Promoting a positive attitude to careers in science, technology, engineering and mathematics; and
- Fostering a greater public understanding of the physical sciences, engineering and mathematics and their value to Irish society.

### Accreditation

The Irish National Accreditation Board (INAB) is the designated national body with sole responsibility for accreditation in Ireland and is a sub-board and division of Forfás.

It has responsibility for the accreditation of laboratories, certification bodies and inspection bodies. It is Ireland's only signatory to the multilateral agreements (MLAs) for Europe through the European cooperation for Accreditation (EA) and worldwide through the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF).

It provides accreditation in accordance with the relevant International Organisation for Standardisation ISO 17000 series of standards and guides and the harmonised EN 45000 series of European standards.

In January 2010, INAB was appointed the sole national accreditation body for Ireland under Regulation 765/2008 which provides a legal framework for the provision of accreditation services across Europe.

### Corporate and Shared Services

Forfás provides certain shared corporate services to Enterprise Ireland, IDA Ireland, the Office of the Chief Scientific Adviser to the Government, Science Foundation Ireland (SFI) and the Sustainable Energy Authority of Ireland (SEAI). These shared services are provided in areas

where Forfás can improve the efficiency and effectiveness of these services or where Forfás has obligations as the legal employer of staff in these agencies. These include aspects of financial and accounting services, human resources, pensions, facilities and property management, goods inwards, messengers, receptionist/telephonist services, coordination of corporate insurances and management of a Freedom of Information network for the enterprise agencies and some other public bodies.

As legal employer of staff across the development agencies (Enterprise Ireland, IDA Ireland and Science Foundation Ireland), Forfás centrally manages the pension schemes of Forfás itself and its preceding organisations<sup>2</sup>, the associated pension compliance obligations and related staff benefits and insurance schemes. Forfás centrally handles certain pension queries from staff across the agencies, administers pension related matters for approximately 1,200 pensioners and their related records as well as records and queries from approximately 540 former employees with deferred pension benefits. All pension benefits arising for retiring and retired staff of IDA Ireland, Enterprise Ireland, Science Foundation Ireland and Forfás, as well as their preceding organisations, are paid on an ongoing basis by Forfás.

The Chief Scientific Adviser provides independent expert advice on any aspect of Science, Technology and Innovation (STI) that may be requested by Government. Forfás acts as the legal host for the Office of the Chief Scientific Adviser since the Office was established in September 2004. In the context of its activities and advice the office operates independently of the Forfás Board and management but, as host to the Office, Forfás acts as the legal entity for day to day contractual obligations associated with the work of the Office and provides the Chief Scientific Adviser with a full range of corporate service supports including legal, HR, facilities management, IT, procurement etc. The day to day administration of the Office is subject to Forfás governance and procedures.

Forfás holds the head leases of the former headquarter buildings of the Industrial Development Authority, including Wilton Park House. In Wilton Park House, Forfás provides central procurement and management of facilities, cleaning, courier, travel, telecoms, catering, security, procurement and storage of stationary and related goods for IDA Ireland, SFI and SEAI. Forfás is also responsible for the property management of Wilton Park House including rent reviews, tenant liaison (public sector and a number of private sector tenants), landlord consents etc.

Forfás is responsible for the costs arising from lease obligations for Carrisbrook House and Knockmaun House, both of which had previously been leased by the former Industrial Development Authority.

## Supporting Euroscience Open Forum (ESOF) 2012

ESOF 2012 is an interdisciplinary, pan-European general science meeting which has been held every two years since 2004. It comes to Dublin in July 2012. The five day event will bring together over 2,000 scientists, business leaders, government officials, policy makers and key international media to discuss the best of European research and to address the current major global scientific challenges, including energy, climate change, food and health. Across the five days there will be over 150 science, careers and science-to-business sessions, with 500

<sup>2</sup> Industrial Development Authority, Eólas, National Board for Science and Technology, An Bord Tráchtála and the Irish Goods Council.

plus speakers, including 26 keynote speakers and five Nobel Laureates, an interactive exhibition and a business innovation marketplace. In recognition of hosting the prestigious ESOF conference this July, Dublin has been formally designated as the City of Science for 2012.

To complement ESOF 2012, a ten day *Science in the City* festival will take place in Dublin designed to maximise the engagement of the visiting delegates with the general public. The festival programme targets adults, families, children, teenagers, students, researchers, specialists and non-specialists, media and visitors to Dublin and Ireland.

The Office of the Chief Scientific Adviser to the Government is responsible for delivering the ESOF 2012 and Dublin City of Science 2012. Since Dublin won the open competition to host ESOF 2012 in November 2008 and in the run up to the event, Forfás has made a significant contribution to the organisation and planning of Dublin City of Science 2012 through the provision of support services and staff including legal, HR, recruitment, finance, facilities management, IT, procurement, governance policies and procedures.

## Oireachtas Grant

Forfás' detailed Financial Statements are on page 121 of this report.













The Department of Jobs, Enterprise and Innovation provided Oireachtas grant funding to Forfás of €44.46 million in 2011. In 2011, 28 per cent of this funding was for expenditure on policy activities and corporate and shared services. Funding to pay pensions to cross-agency pensioners (i.e. Forfás, Enterprise Ireland, IDA Ireland, Science Foundation Ireland and their preceding agencies) represented 72 per cent of the Oireachtas grant.





# Board Members

## Forfás Board

			
<b>Eoin O'Driscoll</b> Chairman, Forfás Chairman, Southwestern	<b>Martin D. Shanahan</b> Chief Executive, Forfás	<b>Bob Brannock</b> President, European Operations, Genworth Financial	<b>Timothy Dullea</b> Former Chief Executive Officer, Tipperary Co-op
			
<b>Mark Ferguson</b> Director General, Science Foundation Ireland	<b>Miriam Magner Flynn</b> Managing Director, Career Decisions	<b>John Murphy</b> Secretary General, Department of Jobs, Enterprise and Innovation	<b>William O'Brien</b> Chief Executive, Wm O'Brien Plant Hire Ltd
			
<b>Barry O'Leary</b> Chief Executive Officer, IDA Ireland	<b>Frank Ryan</b> Chief Executive Officer, Enterprise Ireland	<b>Dr Don Thornhill</b> Business Adviser and Company Director	
			
<b>Michael O'Leary</b> Secretary to the Board			

Sean Gorman resigned from the Board of Forfás on his retirement in October 2011 as Secretary General, Department of Jobs, Enterprise and Innovation.

Paul O'Toole, Director General, FAS and Simon Barry, Chief Economist ROI, Ulster Bank Capital Markets retired, on a rota basis, in December 2011.

Prof. Mark Ferguson joined the Board of Forfás in January 2012 following his appointment as Director General, Science Foundation Ireland.

John Murphy joined the Board of Forfás in January 2012 following his appointment as Secretary General of the Department of Jobs, Enterprise and Innovation.

## Forfás Audit Committee

William O'Brien (Chairman)

Eoin O'Driscoll

Tim Dullea

Sean Gorman\*

John Murphy\*\*

\*Sean Gorman resigned from the Forfás Audit Committee on his retirement in October 2011 as Secretary General, Department of Jobs, Enterprise and Innovation.

\*\*John Murphy joined the Forfás Audit Committee in May 2012.

## Forfás Management Development Committee

Eoin O'Driscoll (Chairman)

Dr Don Thornhill

Miriam Magner Flynn





# Forfás Management Team

**Chief Executive**



**Martin D. Shanahan**

**Enterprise and Trade Division**



**Declan Hughes**  
Division Manager

**Science, Technology  
Innovation, Education and  
Skills Division**

**Vacant**

Division Manager



**Michael O'Leary**  
Dept. Manager Secretary's Office,  
HR, Pensions & Communications



**Adrian Devitt**  
Dept. Manager, Economic  
Analysis, Competitiveness,  
Infrastructure, Tax & Finance



**Eoin Gahan**  
Department Manager  
Trade, Environment & Survey  
Analysis



**Marie Bourke**  
Department Manager  
Education, Skills & Labour Market  
Policy



**Maria Ginnity**  
Department Manager  
Enterprise Policy & Evaluations



**John Dooley**  
Department Manager  
Research & Development Policy



**Adrienne Duff**  
Manager, Irish National  
Accreditation Board



**Joe Heavey**  
Department Manager  
Finance



**Karen Hynes**  
Department Manager  
Innovation Policy

**Vacant**

Department Manager, Systems &  
Cross Agency Facilities

Peter Brabazon , Manager, Discover Science and Engineering and Eamonn Kearney, Department Manager Systems & Cross Agency Facilities retired in February 2012

# Chairman and Chief Executive Overview



# Chairman and Chief Executive Overview

## Policy Context

While Forfás provides many important services to the Government, the enterprise development agencies, and the business community through its constituent elements, Forfás' primary role is the provision of evidence based policy advice. It is appropriate therefore to begin with the current policy context.

From an Irish perspective 2011 can be seen as a year of consolidation and progress. For the first time since 2007, the Irish economy grew, fuelled primarily by a relatively resilient export performance. Ireland's current account balance has moved back into surplus, suggesting that perhaps the economy is now living more within its means, and setting us apart from many other heavily indebted economies such as Greece, Italy, Spain and Portugal. Progress

has also been made in stabilising the banking system, tackling the exchequer deficit and public finances - to date €16.2 billion of consolidation has been achieved through expenditure reductions and taxation increases. Further adjustments totalling €8.6 billion between now and 2015 are envisaged. While such measures are undoubtedly painful, they are necessary, and look like being effective; it is estimated that Ireland's General Government Deficit will decline from 10.1 per cent in 2011 to 2.9 per cent by 2015.

Challenges remain, employment continued to fall while unemployment continued to increase, albeit at a slower rate than in recent years. As a result of extremely weak consumer demand, ongoing uncertainties about recovery and international markets, and limited supply of credit, businesses find themselves under significant pressure in their quest to survive and grow.

The various strands of government policy of importance to enterprise are increasingly being drawn together, ensuring that all departments and agencies are working together in an optimal and complementary manner that will deliver economic growth and ultimately employment growth. *The Action Plan for Jobs 2012* confirms the Government's objective of having two million people in work by 2020 and sets out a vision of Ireland becoming the best small country in which to do business.

All of this is to be achieved against a turbulent international economic backdrop. Most international observers believe that while a global recovery remains the most likely scenario (partly arising as a result of improved financial conditions and resurgent commodity prices), substantial downside risks persist and any recovery will remain fragile for the foreseeable future. Overall, advanced economies are expected to experience weak but positive growth over the coming years.

The real engine of growth, however, will be emerging markets, which are expected to enjoy more robust growth, presenting both challenges and opportunities for Ireland in terms of trade and investment.



Closer to home, the downside risks to an EU and more specifically euro area recovery remain very real. The re-emergence of serious concerns relating to the sovereign debt crisis and recovery in the euro area combined to push the European economy back into recession in the second half of 2011, and marginally negative growth is forecast for 2012.

On the plus side, and notwithstanding the risks alluded to above, the European Commission is forecasting a resumption of growth in 2013 for Ireland and the euro area. The Commission notes, however, that as a result of the scale of the recession and the interlinked complication resulting from the sovereign debt crisis, EU recovery will be a gradual process of continuing unemployment and below potential growth rates.

## Achieving Growth and Jobs

### Focus on Implementation

In light of the domestic and international challenges which confront us, there is an understandable desire for solutions from the public and from policymakers. There is, however, no silver bullet that will deliver instant results and allow Ireland to achieve the objective of a quick return to employment growth. While it might be desirable and comforting if we could focus on a small number of high impact action items to deliver growth and employment, such an outlook is unrealistic. It is enterprises that create jobs and the reality is that a wide range of actions is required to ensure that enterprises are appropriately positioned and equipped to take advantage of any global recovery. It is about taking decisive, concerted and timely action across the entire front of enterprise policy.

Forfás has long advocated a focus on implementation and action. The *Action Plan for Jobs 2012* is focused on implementation and delivery of enterprise-relevant actions, and seeks to harness the collective strength of business, public services and policy makers. It sets out over 270 actions designed to improve competitiveness, grow enterprise (be it at the start-up, expansion or internationalisation phase), deepen the impact of FDI and ultimately deliver jobs and improved living standards. There are actions across each of these areas that can make a real difference for business and for jobs growth in Ireland. In each case, the actors responsible for delivery, the milestones to be met and the resources required for implementation have been identified.

In 2011, working closely with Richard Bruton, T.D., Minister for Jobs, Enterprise and Innovation and his department, Forfás dedicated significant resources, providing research and analytical support, to develop the Action Plan. In 2012, Forfás is responsible for delivering on a significant number of these actions. It is also providing expertise to the Department of the Taoiseach for monitoring implementation of the Plan and is part of the Monitoring Committee together with the Department of the Taoiseach, the Department of Jobs, Enterprise and Innovation (DJEI) and the Department of Public Expenditure and Reform.

More importantly, the *Action Plan for Jobs 2012* is the beginning of a process of annual planning to ensure that Ireland sustains its drive toward achieving the best business environment possible for success. Only by maintaining focus on implementation and ensuring that actions evolve in line with the needs of enterprise can Ireland achieve these ambitious goals.

## Exports

Employment, or rather unemployment, is the dominant economic and social issue now confronting policymakers and citizens alike. As of the last quarter of 2011, there were 302,000 people unemployed in Ireland, equating to 14.3 per cent of the labour force. Despite indications of stabilisation in the labour market, the fact that employment is not growing means that long term unemployment and youth unemployment are increasing and becoming ever more serious problems.

The challenge now is to identify sectors which we believe can generate sufficient employment opportunities to replace the jobs lost in sectors such as construction.

At present, exporting sectors are the only elements of the economy contributing to economic growth - and consumption, investment and government expenditure are expected to remain weak for the foreseeable future.

While exports have proven resilient in comparison with other sectors of the economy - in 2011 merchandise exports grew by 4.1 per cent and services exports grew by 7.1 per cent in 2011 - we cannot afford to be complacent. Despite increasing export values, Ireland is struggling to maintain its global market share, particularly in relation to merchandise exports and in emerging markets such as Brazil, China and India. This is a particular concern given that these are the primary drivers of global economic growth. Irish exports also tend to be concentrated in a relatively narrow range of sectors - pharmachem and computer services being the two dominant exporting sectors. While the performance of these two sectors, as well as the largely indigenous agri-food sector is to be lauded, there is also a need to diversify in terms of both sectors and markets. The impending loss of patent protection is likely to impact upon Ireland's exports from the pharma sector in the immediate term. A continued focus on working with the sector to capture strategically important activities within their corporations and/or to transition to the next generation of production remains crucial to the future success of the overall lifesciences sector in Ireland.

During 2011, Forfás, working with the Export Trade Council, monitored progress on the Trade, Tourism and Investment Strategy. We are also working with the relevant Government Departments and agencies to identify the potential for economic partnership opportunities with high growth economies. In this regard Forfás is focused in particular on the potential of the BRIC countries.

## The Domestic Economy and Labour Market

Exports alone will not deliver economic growth and create sufficient employment opportunities to resolve the unemployment crisis. Sustainable growth will require positive contributions from the domestic sectors also. In particular, there is a need to encourage investment in productive capital and create an environment that facilitates sustainable growth in consumption.

In terms of consumption, reduced incomes have combined with high levels of saving to depress consumer spending. Uncertainty about the future has also dented consumer confidence. Given fiscal constraints, the Government does not have a lot of direct levers to address this issue, other than providing stability and restoring confidence. The same stability and confidence that could boost consumer spending can also benefit enterprise - encouraging firms to invest and hire on foot of the greater clarity and certainty about the future.

There is a range of other policy areas where the Government can take action to support the domestic economy. For example, to facilitate employment creation, it is important that the supply side of the labour market is structured appropriately to take advantage of any upturn in demand. The labour market is a complex entity, regulation of which falls within the remit of a number of different Government departments. Through coordinated and complementary action, we need to ensure that workers (both employed and unemployed) are equipped with enterprise-appropriate skills. This requires ongoing monitoring, evaluation and where necessary, reform of education and training programmes. We also need to ensure that the unemployed are supported appropriately while out of work, mindful of the interaction between welfare supports and labour market wage rates, and kept close to the labour market through targeted activation.

Forfás has continually prioritised policies to ensure the continued strategic investment in our people with policy recommendations aimed at the provision of education, training and upskilling that meet the needs of current and future enterprises and which support labour market flexibility. Forfás has again been to the forefront in 2011 in pushing the need for alignment of education and training provision with enterprises' skills needs. Most recently, there has been a specific focus on the demand and supply of ICT skills for the ICT, financial and other sectors. Forfás firmly advocates a bias towards promotion and supply of science, technology, engineering and maths related programmes. Forfás also advocates an escalation of efforts aimed at strengthening mathematical education at all levels. In 2008 Forfás and the EGFSN were to the forefront of advocating the introduction of bonus points for higher level mathematics at Leaving Certificate level. 2012, the first year of their introduction has seen a significant increase in the number of students applying to sit the higher level paper. In 2011, Forfás contributed to directing the new Labour Market Activation Funds towards the areas of skills demand; but more needs to be done in relation to existing provision by universities, institutes of technology and training providers.

### Competitiveness

To support our exporting sector and kick start growth in locally trading sectors we must maximise Ireland's international competitiveness. International competitiveness refers to the ability of firms to compete successfully in international markets. There are three main, interlinked elements to competitiveness - cost competitiveness; productivity; and innovation.

Looking firstly at costs, it is clear that Ireland became progressively less competitive throughout the period of the construction and consumption bubble, as capacity constraints and excess credit combined to drive up wages and prices. Between 2002 and 2008, it is estimated that Ireland experienced a 30 per cent loss in cost competitiveness. Since the onset of the recession we have recovered some lost ground as a result of falls in relative prices and favourable exchange rate movements. From April 2008 to April 2012, the nominal Harmonised Consumer Index (HCI) fell by 7.6 per cent, while the real HCI fell by almost 15.2 per cent. These gains have primarily arisen as a result of cyclical effects and could be quickly eroded if prices increase more rapidly than in our competitors. To preserve these gains and to further improve cost competitiveness, it is necessary to pursue cost reductions throughout all sectors of the economy. To achieve this, structural reforms will be required. In 2011, Forfás, through its work with the National Competitiveness Council, continued to benchmark Ireland's competitiveness performance and also recommend actions to improve it.

Costs, as stated, however, are just one component of competitiveness. Productivity is a key driver of living standards and competitiveness. Productivity growth allows firms to compete successfully in international markets by enabling output to be produced in a more efficient and cost effective manner. Starting from a low base, Irish productivity levels now exceed those of many of our peers and key competitors. Ireland's labour productivity levels have increased almost threefold in three decades. While traditionally a small number of exporting sectors have been significant drivers of Irish productivity - particularly the modern manufacturing and tradable services sectors - the base of Irish productivity growth is broadening. This is a welcome development and reflects the increasing contribution of the indigenous sector to Ireland's productivity growth. With the onset of recession, Ireland's productivity performance remained relatively strong. However, up to a third of Ireland's productivity growth since 2007 is a result of the reduction of hours worked brought on by the recession. We cannot afford to lose the momentum achieved to date. From a policy perspective, the focus must now be on embedding structural productivity enhancements in all sectors of the economy.

Innovation is the third pillar of competitiveness. Ireland and Irish businesses have invested substantially in research and development as the cornerstone of innovation over the past decade and built up substantial research capability. We now need to ensure that we maximise and accelerate the return from that investment. Gross expenditure on R&D (GERD) has more than doubled over the last decade. This investment has enhanced Ireland's attractiveness to foreign investors and has improved the competitiveness of our indigenous and foreign owned enterprises. At a firm level, we need to ensure that enterprise can access the skills and capital required to introduce new products and processes that enhance their competitiveness.

Forfás has advocated a focus on outputs and impacts as well as investment in research and development. During 2011, Forfás undertook extensive research and analysis to underpin the national exercise to identify those areas which should be prioritised for State investment in research and development and which will have the greatest potential to deliver enterprise growth and employment, as well as improvements in quality of life. This is probably one of the most important policy developments in research and development policy since the Technology Foresight exercise over a decade ago. The National Research Prioritisation Exercise looked at existing research strengths taking account of the outputs of the investment since 2000; assessed the connections between publicly funded research and development and the current and likely future enterprise base; and explored areas of opportunity that are likely to yield the best return for taxpayers' investment in research and development and ultimately sustain high quality jobs in Ireland. The research identifies 14 areas of opportunity which will form the majority of Ireland's State investment in research and development. The work recognises the social impact of research and indeed the need for policy research. The National Research Prioritisation Exercise was accepted by Government and published in March 2012 and Forfás is currently supporting the implementation group chaired by Minister Sean Sherlock T.D.

The National Research Prioritisation Exercise is one of a suite of measures in innovation policy which is aimed at maximising the impact from State investment. In 2011, Forfás contributed to the development of a new Intellectual Property Policy which is being considered by Government. Forfás, together with its Advisory Council for Science, Technology and Innovation (ACSTI), undertook a review of the State funded research centre landscape and published recommendations aimed at addressing the future sustainability of that system.



## Growing Enterprise

The specific challenges relating to growing our enterprise base can be broadly split into two broad categories - enhancing the success of indigenous enterprise and maintaining and continuing to attract and develop foreign direct investment (FDI).

Forfás collects data annually on the performance of the enterprise development agency-supported cohort of companies in terms of economic impact and employment. Full-time employment among agency-assisted firms saw a return to positive growth (+1.5 per cent) in 2011 following three years of net job losses, with gross job gains (21,800) at their highest levels since 2008 and gross job losses (17,500) at their lowest level in over a decade. Net job losses in manufacturing have stabilised and services jobs are up 4 per cent. Total exports of agency-assisted companies in 2010 increased by 4 per cent over 2009. Indigenous exports increased by 14.7 per cent to €12.37 billion, and foreign-owned firms' exports increased by 2.5 per cent from €112 billion to €114.62 billion between 2009 and 2010. Direct expenditure of all agency assisted firms in the Irish economy, however, fell in 2010 to €34.95 billion, which was a drop of 4.4 per cent over 2009 (4.8 per cent for Irish and 4 per cent for foreign-owned companies). Irish-owned firms account for almost half of direct expenditure in the Irish economy in 2010.

Many sectors exhibit potential to grow, including well developed sectors such as ICT, life sciences, financial services and agri-food and new sectors such as digital games, green technologies, private health and international education. The construction sector is an important sector in any economy and needs to be working at a sustainable level. In Ireland the sector has taken a significant knock. Forfás will in 2012 examine the potential of the sector and outline a new strategy for the sector, with a particular focus on its potential in terms of exports and outward direct investment.

Forfás believes that manufacturing is hugely important from an enterprise policy perspective. Manufacturing presents an opportunity to create significant numbers of jobs particularly when integrated with other parts of the value chain in high value sectors. As with all sectors, we must be internationally competitive to price ourselves back into the market for such jobs. One of the most important items for Forfás to deliver under the *Action Plan for Jobs 2012* is a strategy in support of manufacturing in Ireland.

There is a range of business environment issues that impact on all businesses and Forfás has worked with key stakeholders throughout 2011 and provided policy advice on these issues including tax, access to finance, infrastructure quality, skills availability and reducing the administration burden imposed by the State on firms.

Forfás is also currently reviewing all of the supports provided by the enterprise development agencies to ensure that they are fit for purpose.

## Forfás Resources and Performance

Internally within Forfás 2011 was a demanding year. There was an increased need and demand for our research, policy advice and other services, while resources continued to reduce.

Since the introduction of the moratorium on recruitment, Forfás has experienced a reduction of one third of its staff and we have operated within our Employment Control Framework staffing levels. The moratorium has had a significant impact on our organisation and we have lost a large number of long standing and very expert personnel, without replacement. As a

result, we have re-structured, re-organised, and re-prioritised and we have delivered. That in large part is due to the expertise, commitment and professionalism of our management team and staff. The reduction in resources has put continuing strain on the organisation's ability to deliver on its wide mandate, which includes both policy advice and operational services.

The output and impact of our policy advisory function is difficult to quantitatively measure, but we engage with our key stakeholders regularly and elicit their feedback on our performance. Such feedback has been overwhelmingly positive and has also underlined the need for evidence based policy advice.

## Non-Policy Services

While the primary function of Forfás is to deliver policy advice it also has other significant functions including accreditation, awareness, and corporate and shared services.

### Accreditation

The single European market is of fundamental importance to Ireland and accreditation plays an important role in guaranteeing the access of Irish products and services to EU and worldwide markets. It can provide competitive advantage and promotes improved standards and work practices.

The Irish National Accreditation Board (INAB) is a division of Forfás and INAB accreditation ensures that certificates and test results are acceptable worldwide. Accreditation eliminates the need for multiple assessments when goods cross frontiers, giving Irish industry the best competitive advantage possible in what is an ever-expanding and increasingly challenging marketplace. Demand for accreditation services from INAB continued to increase through 2011.

INAB, like the other divisions of Forfás, is committed to improvement and responding to client needs. It seeks feedback through its website, seeks input from its assessors to improve its processes and has also just recently conducted a client survey.

### STEM Awareness

Throughout 2011 we continued to enhance students' and the general public's engagement with science, engineering and maths through a range of awareness activities. The national awareness programme, Discover Science and Engineering (DSE), which was transferred to Science Foundation Ireland earlier this year, started in Forfás in 2003 and grew into the significant and impactful programme that is today. The programme directly engages 200,000 primary students and 10,000 secondary school students across the country and has delivered a programme of activities which has brought a greater understanding of science, engineering and maths and its value to society to many. Over the years, Forfás has used a partnership model and the most up-to-date information technology and communication channels to reach its target audiences and has maximised the impact of the programme with reduced resources. This is a programme of which we are very proud and we would like to wish Science Foundation Ireland and the DSE team the very best in their future endeavours.

## Shared Services

Forfás shared corporate services staff continued to provide efficient and effective services to IDA Ireland, Enterprise Ireland, SFI, SEAI and the Office of the Chief Scientific Adviser to the Government throughout the year. In addition to the shared services activities in financial and accounting, HR, pensions, facilities and property management and others, Forfás' shared services teams have provided significant additional support to the Office of the Chief Scientific Adviser which is responsible for the European City of Science in Dublin in 2012 the focal point of which is Europe's largest science conference ESOF 2012 in July.

## The Future

In 2011 Minister Bruton signalled his intention to integrate the policy advisory function of Forfás with his own Department. The aim of the integration being to leverage synergies and efficiencies in the development and delivery of enterprise policy and actions.

The Board and Executive Management team have engaged proactively, positively and constructively with the Minister and his Department in relation to exploring the potential of such an integration, mindful of the need to maintain the core principles which underpin the development of robust, evidence-based policy advice and continuity in service delivery during any resulting change process.

To provide certainty to our staff and stakeholders, the Board wishes to see progress made on this proposal quickly. In the meantime, the organisation is focused on delivering on all aspects of its mandate.

## Acknowledgements

Forfás is committed to the delivery of evidence-based policy advice, which has greatest impact for enterprise and which delivers on our national goals of enterprise growth and job creation. We benefit from the guidance and knowledge of many organisations and individuals. There are many that we would like to thank for their support in our work during 2011.

Forfás works in partnership with our parent department, the Department of Jobs, Enterprise and Innovation. We would like to acknowledge the support of the department. We would like to thank Richard Bruton T.D., Minister for Jobs, Enterprise and Innovation, and his colleagues John Perry, T.D., Minister for Small Business and Sean Sherlock, T.D., Minister for Research and Innovation at the Department of Jobs, Enterprise and Innovation for the contributions and support that they have provided to us. We would also like to acknowledge the inputs of the former Secretary General of DJEI, Sean Gorman who retired during 2011. We look forward to progressing a range of important and demanding projects with the new Secretary General, John Murphy, and wish him well in his new role.

Forfás activity requires that we work across Government departments and agencies as we bring an enterprise perspective to their areas of policy. Forfás is grateful for the level of engagement and commitment demonstrated by all departments and their agencies in Forfás' policy work and that of the councils we support.

Forfás and its sister agencies, Enterprise Ireland, IDA Ireland and Science Foundation Ireland work extremely closely to ensure that policy is coherent and also that every effort is made to ensure the optimal use of available resources. We would like to thank our sister agencies for

their cooperation and input during 2011. Forfás also receives support in its work from FÁS, Shannon Development and Údarás na Gaeltachta.

There is a wider community of stakeholders which also contributes significantly to our work including employer representative groups, trade unions, and third level institutions and training bodies and we would like to extend our appreciation to them.

Forfás manages and supports the work of three advisory councils. We would like to acknowledge the work of those groups and their chairpersons Dr Tom McCarthy (Advisory Council for Science, Technology and Innovation), Una Halligan (Expert Group on Future Skills Needs), and Dr Don Thornhill (National Competitiveness Council). We would also like to acknowledge the work of the Irish National Accreditation Board, chaired by Tom O'Neill. In 2011, we also worked closely with the Steering Group for the National Research Prioritisation Exercise and we would like to acknowledge the contribution of its Chairman Jim O'Hara.

We would also like to acknowledge the work of the Advisory Group for Small Business, chaired by Minister John Perry, on which Forfás is represented and to which Forfás provided research support during the year. We also work closely with the Central Statistics Office on surveys and data collection and we appreciate their ongoing collaboration.

We work closely with and provide significant support to Prof. Patrick Cunningham, the Chief Scientific Adviser to the Government and his team. We would like to thank them for their inputs and wish them the very best of luck in delivering on the ESOF 2012 conference in July.

With the increasing pressures on business people and entrepreneurs it is not easy for them to take time out of their businesses and work. We would particularly like to thank all of those who have given their time to engage with us directly or through their representative groups.

Forfás staff have worked hard and delivered an extensive and challenging work programme in 2011. We would like to thank them. Maintaining the focus, achieving the quality and delivering on the flexibility that was needed required a significant extra effort on their part, particularly in light of the impacts of reducing resources and an uncertain operating environment.

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# Enterprise

## Policies for sustainable enterprises and jobs

Ireland has a strong base of enterprise, both indigenous and foreign owned, and a culture that encourages companies to develop and expand.

Working with the enterprise development agencies and a broad range of stakeholders, Forfás provides the Minister and DJEI with independent advice on a range of policy areas from an enterprise perspective.

We advise on enterprise policy that recognises the critical role of sustainable, competitive enterprises to Ireland's economic recovery.

We develop clear action plans to enhance the business ecosystem so that all enterprises can invest, grow and thrive in an intensely competitive global environment.

We highlight sectoral areas of opportunities for enterprise, informed by global trends and Ireland's existing strengths and competences, and identify sector-specific actions needed to accelerate growth in exports and employment.

We advise on trade strategies, building on Ireland's existing trade relations, and identifying the actions needed to expand into new and emerging markets.

We contribute to the development of regional policy and highlight the importance of place, access and quality of life for enterprise investment and entrepreneurship.

We evaluate enterprise agency programmes in a comprehensive and systematic way to measure the appropriateness, effectiveness and efficiency of their objectives and delivery.

We gather data and robust, thorough analysis of that data is an essential basis for good policy advice. We undertake a number of enterprise related surveys which are used across all the policy areas and are also responsible for a number of international surveys which are undertaken on behalf of the Central Statistics Office and the EU Commission.

## Enterprise Surveys

In 2011 Forfás collected and analysed a range of data on employment and expenditure by agency-supported firms.

[Annual Business Survey of Economic Impact \(2010\)](#)

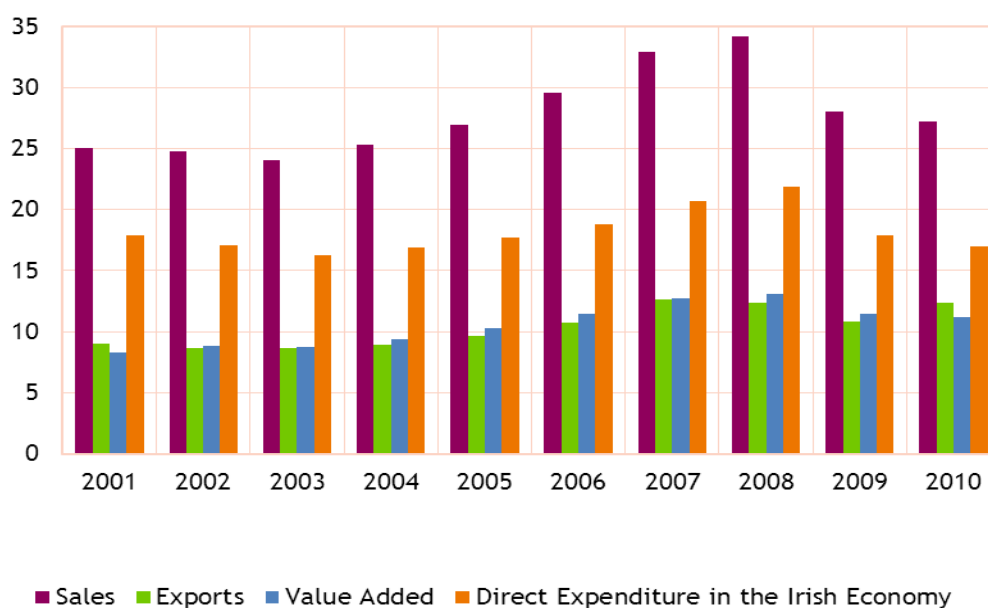
Annual Employment Survey

### Annual Business Survey of Economic Impact (2010)

The Annual Business Survey of Economic Impact (ABSEI) is a survey of the client base of Enterprise Ireland, IDA Ireland, Shannon Development and Údarás na Gaeltachta and tracks indicators of their performance and contribution to the Irish economy. The survey population comprises all manufacturing and internationally traded services client firms in Ireland with ten or more employees (approximately 3,600 enterprises). The response rate for this survey was 63 per cent for 2010.

The questionnaire covers a wide range of indicators, e.g. sales and exports along with expenditure items such as purchases of materials and services and the percentage of that expenditure that is spent in Ireland, payroll and training investments. The results show an improvement for agency-assisted enterprises since 2009, with increased sales for foreign-owned companies (2 per cent), increased exports for both Irish and foreign owned companies (by 15 per cent and 2 per cent respectively) and value added increased by 3 per cent for foreign-owned firms. However, direct expenditure in the Irish economy declined for both Irish and foreign owned companies, by 5 per cent and 4 per cent respectively since 2009. Sales and value added for Irish-owned firms also declined by 3 per cent since 2009.

**Figure 1: Contribution of Irish-Owned Agency-Assisted Companies in the Irish Economy, 2001 - 2010 (€billion, current prices)**



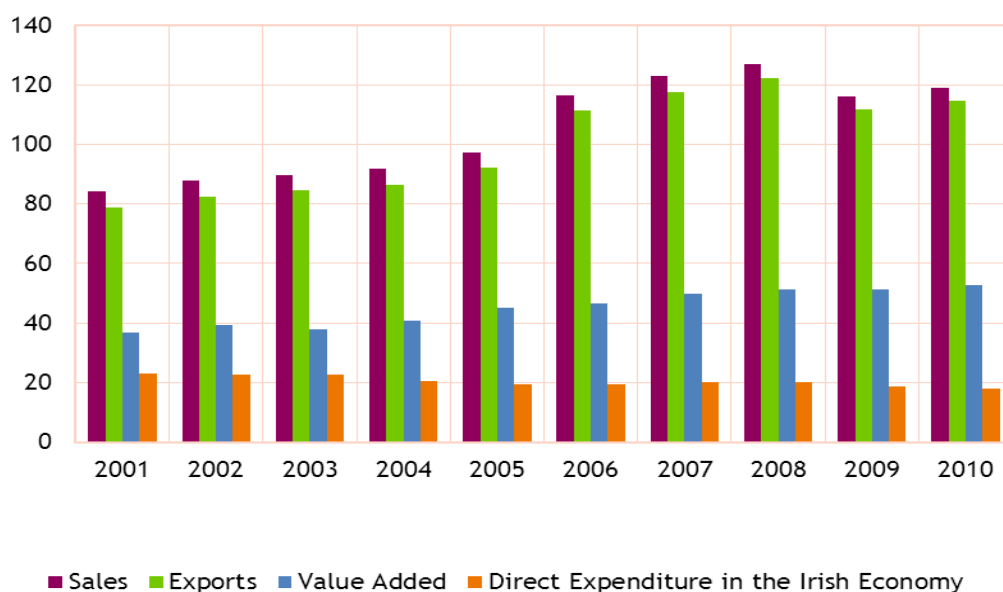
Source: Forfás Annual Business Survey of Economic Impact 2010



The total economic impact of the agency client base on the Irish economy remains significant, with these companies contributing almost €35bn in 2010 between payroll costs and their purchase of Irish materials and services. Direct expenditure (payroll and purchases of Irish materials and services) by Irish firms fell by 5 per cent over 2009 levels to €16.9 billion reflecting the fall in sales, while the corresponding percentage for foreign-owned firms is 4 per cent (€17.9 billion). In 2010, the direct expenditure of foreign-owned firms in the Irish economy was equivalent to approximately 14 per cent of Ireland's Gross National Product (GNP). In 2010, the direct expenditure of Irish-owned firms in the Irish economy also amounted to approximately 13 per cent of GNP. Value added in all Irish-owned firms was equivalent to over 9 per cent of GNP in 2010.

As noted above, Irish owned companies reported decreased sales of 3 per cent in 2010 and foreign-owned firms reported a 2 per cent per cent increase; sales by Irish firms in 2010 stands at €27.2 billion, while the corresponding figure for foreign firms is €118.9 billion. Exports were €12.4 billion (Irish firms) and €114.6 billion (foreign). See Figures 1 above and 2 below.

**Figure 2: Contribution of Foreign Owned Agency Assisted Companies in the Irish Economy, 2001 - 2010 (€billion, current prices)**



Source: Forfás Annual Business Survey of Economic Impact 2010

### Corporation Tax Payments

In addition to their expenditure in the economy, manufacturing and internationally traded and financial services companies provide a significant direct return to the Exchequer by way of corporation tax payments. The total corporation tax yield from all sources in 2010 was €3.9 billion. It is estimated that agency assisted firms in the manufacturing and internationally traded services sectors accounted for €2.4bn, with an additional €626m from internationally traded financial services firms, amounting to €3.03bn (77 per cent) of the €3.9bn total corporation tax paid in the economy. Detailed results are available on the Forfás website.

## Annual Employment Survey

The Annual Employment Survey is an annual census of employment in all primary production, manufacturing and services companies supported by the enterprise development agencies, IDA Ireland, Enterprise Ireland, Shannon Development and Údarás na Gaeltachta. In response, firms give their count or best estimate of permanent full time employees and part time and other employees as of 31 October in the survey year. The survey has been carried out each year since 1973. Forfás, in line with its mandate to co-ordinate the activities of Enterprise Ireland and IDA Ireland, carries out the survey with the co-operation of Enterprise Ireland and IDA Ireland staff. Shannon Development and Údarás na Gaeltachta carry out the survey for companies falling within their remit and provide the results for inclusion in the Forfás database.

The population for the Annual Employment Survey 2011 was approximately 8,000 firms: roughly three quarters of which were Enterprise Ireland clients; one eighth were IDA clients; and one eighth were clients of Shannon Development or Údarás na Gaeltachta. Results from the survey are, and have been, important to the enterprise development agencies, as they help to establish the level of net job creation in each of the sectors in which its clients are involved, and to make overall comparisons between those changes in employment levels and changes in employment by sector across the wider economy.

Total permanent full time employment in agency-assisted companies operating in all sectors amounted to 284,471 in 2011. This is an increase of 4,333 jobs (1.5 per cent) on employment levels in 2010, representing a return to positive growth in employment following three consecutive years of employment losses between 2008 and 2010. Part-time employment increased by 10.3 per cent between 2010 and 2011. Total full-time employment among Irish-owned companies amounted to 141,392 in 2011, an increase of 0.4 per cent or 629 additional jobs over the previous year. Irish owned company employment is currently 9,450 jobs or 6.3 per cent lower than it was in 2002. Among foreign-owned companies, total full-time employment amounted to 143,079 in 2011, up from 139,375 (an increase of 2.7 per cent on the previous year). Employment in foreign-owned companies is 9 per cent (13,667 jobs) lower than 2002 employment levels.

In addition to permanent full-time employment, there were a further 38,434 jobs of a temporary or part-time nature recorded in agency assisted companies in 2011, of which 21,044 were in Irish firms, and the remaining 17,390 in foreign owned firms. The temporary/part time employment level for 2011 is up 3,586 on 2010 levels (10.3 per cent). Among Irish-owned companies, there was an increase in temporary and part time employment of 1,868 (9.7 per cent) in 2011. In foreign owned firms, employment of a temporary or part-time nature increased by 1,718 jobs (11 per cent) on the previous year.

Taking the two categories of employment together (permanent/full time and temporary/part time), there are now 322,905 people employed in agency assisted companies, compared to 340,745 in 2002.

Figure 3 charts job gains (firms that have increased employment), losses (firms that have decreased employment) and the overall net change in employment. In the period 2002 - 2004, agency assisted companies recorded net job losses; this was followed by a period of net job creation in 2005 - 2007. The period 2008 - 2010 at the start of the global recession is characterised by net job losses, with particularly heavy gross job losses in 2009. In 2011, there were net employment gains of 4,333 and encouragingly, gross job gains are at their highest level since 2008, at 21,800, and gross job losses (17,467) are at their lowest level for more than a decade.

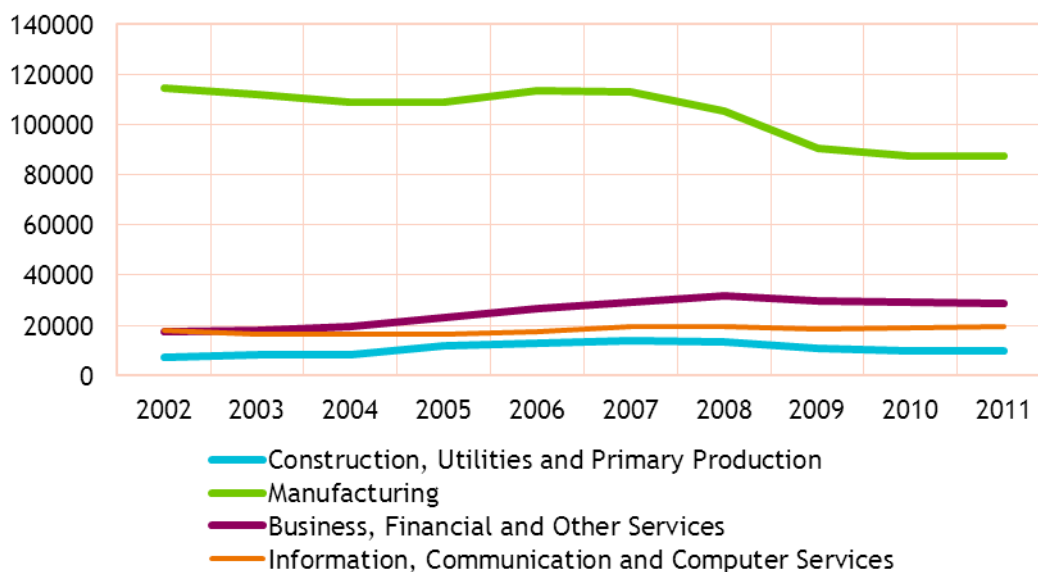
**Figure 3: Job Gains, Losses & Net Change in Permanent Full-time Employment in All Agency Assisted Companies, 2002 - 2011**



Source: Forfás Annual Employment Survey 2011

Figure 4 presents a sectoral breakdown of permanent full-time employment in Irish-owned companies by broad sector. In 2011, employment increased by 0.4 per cent for all sectors over 2010. In the Information, communication and computer services sector employment increased by 3.2 per cent on 2010. The business, financial and other services sector saw a decline of 0.6 per cent in employment since 2010. However, over the 10 year period this sector has seen employment growth of 75.8 per cent or 11,915 jobs with the business services sector accounting for 6,305 jobs.

**Figure 4: Sectoral Trends in Permanent Full-time Employment within Irish-owned Agency-Assisted Companies, 2002 - 2011**

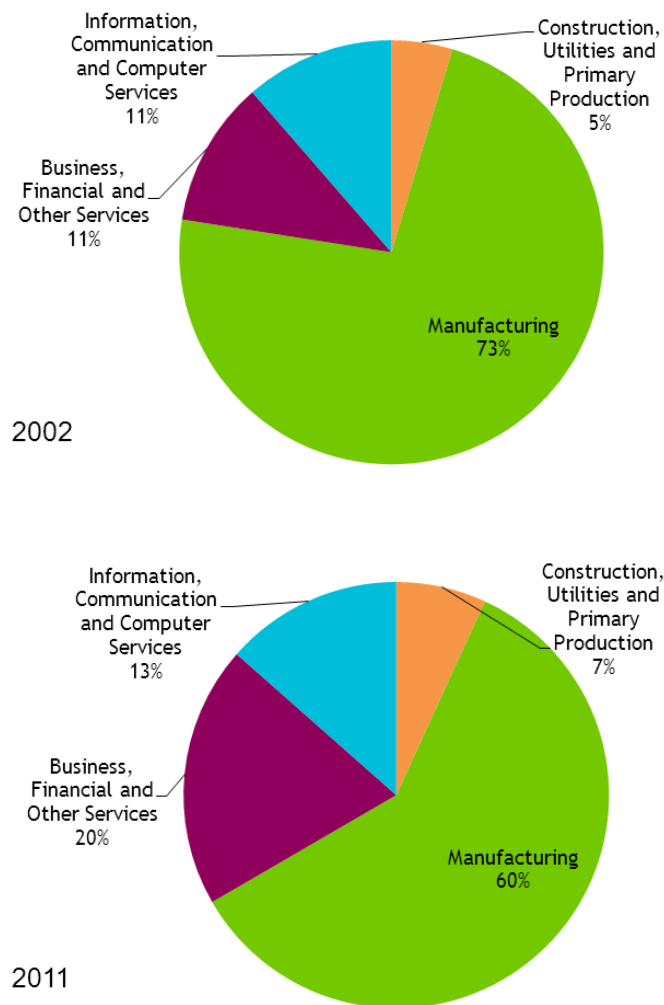


Source: Forfás Annual Employment Survey 2011

The manufacturing sector has seen a net gain of 147 jobs from 2010 to 2011, an increase of 0.2 per cent, and a loss of 26,072 jobs or 23.5 per cent since 2002. However, within manufacturing, the food sector created 636 additional net jobs since 2010, a 2 per cent increase. The construction, utilities and primary production sector has seen an increase in employment of 0.54 per cent on 2010, following three years of declining employment in the sector with a loss of 3,570 jobs from 2008 to 2011.

As a share of total Irish-owned company employment, manufacturing has fallen 73 per cent in 2002 to 60 per cent in 2011. Alongside a 76 per cent absolute increase in employment between 2002 and 2011, business, financial and other services has seen its share increase from 11 to 20 per cent over the same period. The construction, utilities and primary production and information, communications and computer services sector groupings each saw small increases in shares of total employment between 2002 and 2011 (see Figure 5).

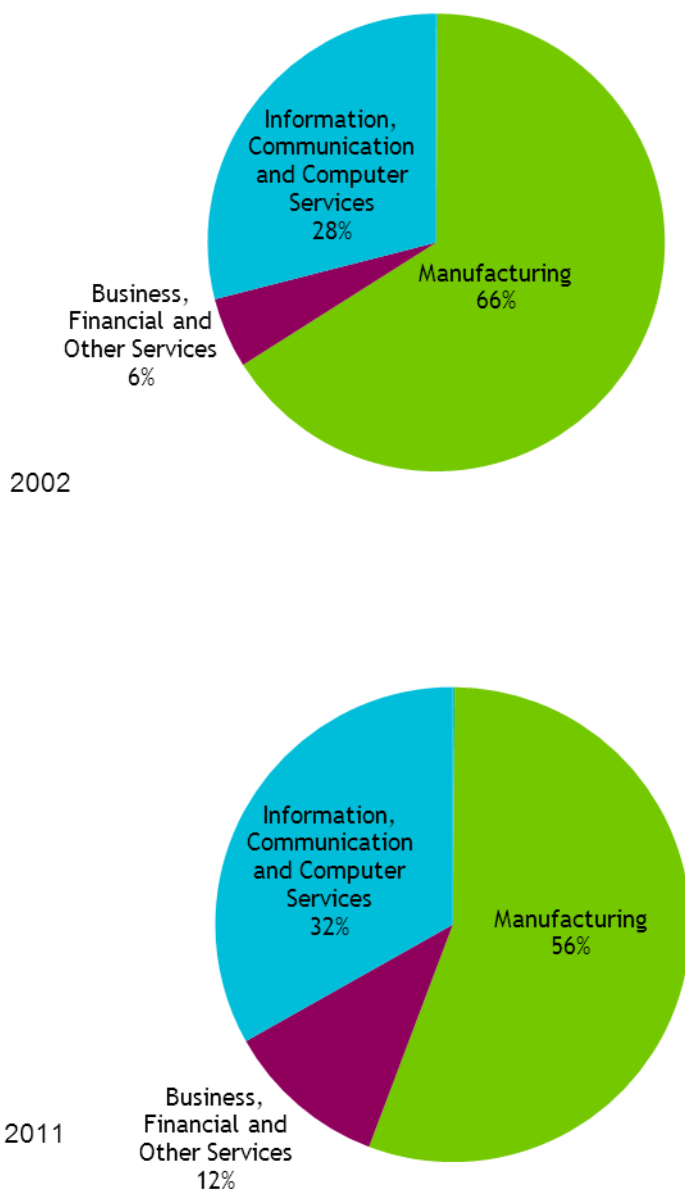
**Figure 5: Sectoral Proportions of Permanent Full-Time Employment within Irish-Owned Agency Assisted Companies, 2002 and 2011**



Source: Forfás Annual Employment Survey 2011

Figure 6 depicts the proportion of agency assisted foreign owned employment for each sector in the economy in 2002 and in 2011. Construction, utilities and primary production employment shares are not shown above due to their negligible proportions. Notable are the reduced share of manufacturing and the increases in the services sectors. Business, financial and other services have increased their proportion of employment from 6 to 12 per cent.

**Figure 6: Sectoral Proportions in Permanent Full-time Employment within Foreign-owned Agency-Assisted Companies, 2002 and 2011**



Source: Forfás Annual Employment Survey 2011



## Action Plan for Jobs 2012

Forfás worked closely with the Minister for Jobs, Enterprise and Innovation and his Department to develop the *Action Plan for Jobs (APJ) 2012*. The production of an Action Plan for Jobs 2012 marked the commencement of an annual process to produce an Action Plan focused on jobs and the enterprise economy.

The *APJ 2012* aims to make Ireland the best small country in the world in which to do business and increase the number of people at work in Ireland by 100,000 by 2016. It provides a blueprint for action which aligns all Government departments and agencies around an enterprise growth and jobs objective.

The *APJ 2012* focused on seven strands, the first six of which were:

- Building Competitive Advantage;
- Supporting Indigenous Start-ups;
- Assisting Business to Grow;
- Attracting Inward Entrepreneurial Start-ups;
- Developing and Deepening the Impact of Foreign Direct Investment; and
- Developing Employment Initiatives within the Community.

The *APJ 2012* also included a section on Exploiting Sectoral Opportunities which highlighted the actions required to support existing and new sectors.



### Launching the first Action Plan for Jobs 2012

Pictured are (l-r) Eamonn Gilmore TD, Tánaiste and Minister for Foreign Affairs, Enda Kenny, T.D., Taoiseach and Richard Bruton, T.D., Minister for Jobs, Enterprise and Innovation

There were 270 actions across 14 departments and 36 agencies which, while disparate, was recognition that making progress across a wide range of issues that were impinging on businesses could make a significant impact on job growth prospects.

The process associated with the *APJ 2012* is as important as the content of the Action Plan. It was designed to promote implementation. The Plan includes detailed tasks, identifies those responsible for delivery and sets out timelines.

Reporting requirements in relation to the Plan have also been put in place. The Action Plan for Jobs Monitoring Committee has been established and includes representatives from Forfás, the Department of Jobs, Enterprise and Innovation, the Department of Public Expenditure and Reform and the Department of the Taoiseach. The Monitoring Committee reports to the Cabinet Committee on Economic Recovery and Jobs to ensure that targets are achieved. A number of expert staff from Forfás are currently working with the Department of the Taoiseach on the monitoring process.

Quarterly reports on implementation will be prepared and published. The first implementation report has been published and 96 per cent of all actions targeted for delivery in the first quarter of the Plan were achieved.

Forfás has lead responsibility for the delivery of a substantial number of actions in the Plan in 2012, including:

- Developing a set of competitiveness targets that are amenable to domestic action;
- Developing actions to systematically reduce excessive key business costs or delays;
- Identifying changes in the operation of sectoral regulators that would enhance cost competitiveness;
- Auditing and reviewing the multiplicity of licenses required by businesses to assess the potential for discontinuing some licenses and for amalgamating licenses;
- Developing, in consultation with stakeholders, a national strategy for the construction sector; and
- Developing a long term vision for the manufacturing sector and putting in place a strategic plan that will help to realise this vision.

[Action Plan for Jobs 2012](#)

## Jobs Initiative

The Government committed to bringing forward, within its first one hundred days of office, a series of actions to foster employment growth and help sustain enterprise.

The *Jobs Initiative* was the first of these actions. Forfás provided advice on the *Jobs Initiative* based on research already conducted, the views of the enterprise agencies and undertook new focused analysis.

The budget neutral measures outlined in the Initiative were focused on assisting in employment generation, providing opportunities for those who have lost their jobs, and generating confidence in the economy.

[Jobs Initiative](#)

## Agency Programme Evaluations

*Making it Happen - Growing Enterprise For Ireland* called for the development and implementation of a framework that would inform a systematic approach to undertaking evaluations of agency programmes. A programme of evaluations was started by Forfás in 2011.

An evaluation framework has been developed, informed by international best practice, which sets out the methodologies and approach to ensure maximum coherence and comparability across evaluations.

This framework will assist policy makers and enterprise support programme designers to assess the value of policy interventions, achieve continued improvements in the design and implementation of programmes, and strengthen the evaluation culture in enterprise support provision.

The overall objective of the series of evaluations of agency programmes is to inform the optimum use of resources in a constrained environment to deliver on enterprise policy objectives. The agency programmes are categorised according to the following areas of intervention:

- Start-up and Entrepreneurship;
- Research, Development and Innovation; and
- Business Development.

In early 2012, Forfás completed the evaluations for start-up and entrepreneurship supports and progressed those relating to RD&I, which are scheduled for completion by end 2012. Each programme is evaluated in terms of its appropriateness, efficiency and effectiveness:

- In its own right;
- As a constituent within the relevant thematic area; and
- Within the overarching enterprise policy context.

The evaluation of the entrepreneurship and start up supports provided by Enterprise Ireland and the County Enterprise Boards (CEBs) included a range of programmes - supports for high potential start-ups (HPSUs), micro-firms and start-up firms (CEBs), start your own business programmes and a number of HPSU feeder programmes. The feeder programmes range from idea generation workshops, to short training sessions to longer term intensive programmes (incl IdeaGen, Propel, Enterprise Start 1, Enterprise Start 2 and CORD).

Over the period covered by the evaluation (2004-2010) enterprise policy strategies and related reports highlight the importance of stimulating entrepreneurship and start-ups. Start ups play a key role in driving economic growth, enhanced productivity and innovation are one of the means by which new sectors or sub sectors of existing industries take root in Ireland, thereby helping to deliver a strong enterprise mix. Most recently the *Action Plan for Jobs 2012* reinforces the importance placed on start ups.

The economic context changed considerably over the period under evaluation, ranging from a time of high growth/low unemployment in 2004 to a period of high unemployment and increased challenges for start-ups in terms of access to finance.

In line with enterprise policy, financial supports are targeted toward manufacturing and internationally trading services companies thereby minimising the potential for displacement.

The overarching finding of the analysis indicates that, in general, the each of the individual initiatives is:

- Appropriate in the context of the policy environment at the time;
- Effective in meeting its stated objectives; and
- Efficient.

However, there is scope to minimise potential duplication, particularly with regard to the feeder interventions. Since the evaluations started some changes have been made to streamline programmes and increase efficiencies where appropriate.

The key recommendations include the need to:

- Develop a national entrepreneurship policy for Ireland outlining objectives, targets and responsibilities;
- Introduce a system of ex-ante evaluation across the enterprise agencies, informed by the Forfás evaluation framework, so that the most appropriate supports are being provided to address the market failures that pertain at a point in time. At design stage an ex-ante evaluation should set out the rationale, clear objectives, targets and metrics. At a system level consideration should also be given to what is already in existence to avoid duplication, and to inform the discontinuation of a no longer justifiable intervention.
- Collect and collate data required for the purposes of programme evaluation informed by the identification of metrics at ex-ante evaluation stage. Within the CEBs in particular the supports directed toward start ups needs to be delineated from those provided to existing firms and other activities.

For individual programmes:

- Assess the potential to increase cohort of HPSUs generated per annum with due regard to retaining the quality associated with HPSU status;
- Streamline the feeder programmes for start-ups, and consider developing a modular approach to address the needs of different cohorts and target audiences;
- Increase the efficiencies of the training programmes offered by the CEBs through further collaboration on design and delivery;
- Ensure that any future Enterprise Ireland venture capital partner funds are aimed at addressing the prevailing market failures in the VC market and in sectors aligned with the investment strategies of commercial VC fund managers.

### Advisory Group for Small Business

The Advisory Group for Small Business (AGSB) is chaired by John Perry, T.D., Minister for Small Business. The AGBS was launched by the Taoiseach in June 2011 and was directed to report by the end of October 2011. The membership consists of business people with direct experience in running a business, business representative bodies, relevant enterprise development agencies and the Department of Jobs, Enterprise and Innovation (DJEI). Forfás was asked by DJEI to provide research and analysis support.

The range of issues raised by the AGSB's members was extensive and, facilitated by Forfás, the members agreed to focus on addressing barriers to growth in the first instance. Its report, *The Voice of Small Business - A Plan for Action*<sup>3</sup>, was published in November 2011.

The main findings of the report set out that:

- There are almost 200,000 small businesses in Ireland involving over 655,000 people<sup>4</sup>. A significant proportion of these firms employ less than 10 people.
- Many trade on international markets, and there is potential for many more to internationalise. Many will continue to focus exclusively on the domestic market and to remain small by choice.
- Small firms are involved in a broad spectrum of sectors and activities, including software, medical technologies, food production, digital content, tourism, retail and wholesale, business, professional and personal services - many of which are high employment generators<sup>5</sup>.
- Small firms are regionally spread and contribute to building a community, to developing a sense of place and to enhancing a location's attractiveness as a place in which to live and to do business.
- Small firms are facing unprecedented challenges in the current economic downturn. There were 8,000 fewer small businesses and 105,000 less people employed by small businesses in 2009 than there was in 2007.



### Launch of the Report of the Advisory Group on Small Business

Launching the report in November 2011 are John Perry, TD and Minister for Small Business with AGSB members and secretariat to the AGSB

The AGSB members acknowledged that some actions set out in the report are already on the Government's agenda, and reinforced the importance from the perspective of small businesses. Actions were set out under a number of priority areas:

- Access to Finance and Improving Cash Flow
- Labour Costs

<sup>3</sup> The recommendations contained in this report represent the views of the members of the Advisory Group for Small Business and not those of Forfás.

<sup>4</sup> Small businesses are those with less than 50 people engaged

<sup>5</sup> Over the period 2000 to 2007, before the recession hit, over 172,000 net jobs were created in small enterprises involved in services

- Other Costs of Doing Business
- Access to Public Procurement for Small Business
- Advice on Managing out of a Crisis
- Management Development for Growth
- The Hidden Economy

Other actions are focused on competitive practices, making it easier to access information for small firms and non-judicial debt resolution and insolvency.

*The Voice of Small Business - A Plan for Action* provided the small business perspective and a valuable input to the *2012 Action Plan for Jobs* published by the Minister for, Jobs, Enterprise and Innovation in February 2012.

[Report of the Advisory Group for Small Business](#)

## South East Employment Action Plan

In response to the high unemployment in the South East region and impact of the closure of the Talk Talk operation in Waterford City, Richard Bruton, T.D., Minister for Jobs, Enterprise and Innovation requested that Forfás develop an action plan for the South East.

Forfás worked closely with the development agencies and other stakeholders and, building on its previous research and analysis for the *Regional Competitive Agendas (2009)*, provided a comprehensive overview of the strengths and potential for the region, together with a suite of actions required to address barriers and to enable future employment creation and growth.

*The South East Region Employment Action Plan - Spotlight on the South East* was published in December 2011. The key actions were focused on the following aspects:

- Development of the regional gateway and effective promotion of the region, involving the elevation of key developmental priorities for Waterford City and a coordinated approach by the enterprise agencies, local authorities and other regional stakeholders.
- Upgrading the regional enterprise mix, with a focused enterprise agency spotlight on the South East, involving concerted actions to:
  - Stimulate entrepreneurship and new business start-ups;
  - Promote sustainability and upgrading of the existing enterprise base through intense engagement by the agencies with established client companies;
  - Improve the attractiveness of the South East to realise potential for enterprise investment in sectors such as tourism, agri-food, cleantech, lifesciences and internationally traded services, working in partnership with the local authorities and other relevant stakeholders;
  - Stimulate increased engagement by firms in management development; and
  - Leverage regional higher education strengths through structured engagement between key research groups in the institutes of technology (IoTs) and the enterprise agencies' sector teams.
- Implementing a set of focused initiatives by the enterprise agencies to develop contact centre and business process outsourcing related activity in the South East;



- Supporting the recently unemployed through a range of up-skilling and labour activation initiatives; and
- Progressing regional infrastructure projects, in particular strengthening the resilience of the broadband backbone network and completion of the N11 /M11 upgrade.

In November 2011, the Minister for Jobs, Enterprise and Innovation convened a stakeholder forum for the South East at which Forfás presented the draft action plan. The forum is to meet periodically with the objective of driving the collaborative approach required to enhance the potential of the South East as an attractive location for investment, job creation and growth.

[South East Region Employment Action Plan](#)

## Regional Aid Guidelines

State Aid is provided to firms to promote economic development across the EU. Grant Aid limits for capacity building (employment and capital) are determined by the Regional Aid Guidelines (RAGs) set out by the EU Commission, and targeted primarily to support the more disadvantaged areas within the EU. The current regime is due to expire by the end of 2013. Negotiations for determining permissible levels of State Aid across the EU post 2013 started in 2011 and Forfás coordinated an initial cross-agency response to DJEI to inform Ireland's position at the first meeting of the member states in March 2011.

Forfás convened an Inter-Agency Group to provide research, analysis and advice to DJEI with the aim of ensuring that Ireland achieves the best possible outcome in terms of its ability to provide Regional Aid to attract enterprise investment (both foreign and indigenous) post 2013 and to contribute to balanced regional development.

## Sector Development

Forfás plays a key role in developing a coherent agenda aimed at the development of sectors in Ireland in the context of increased global competition. Sectoral development requires constant review and update if it is to be effective, involving horizon scanning and analysis of global and national developments to inform a rolling agenda for action. Forfás works with the enterprise development agencies and other stakeholders to continuously review and prioritise sector specific barriers and or enablers to inform policy development, required actions and implementation.

The suite of sector briefs developed by Forfás set out an agreed cross agency agenda. They:

- Harness the collective knowledge of the agencies which is informed by industry to set out a comprehensive overview of a sector encompassing indigenous and foreign perspectives and including non-DJEI supported sectors;
- Set out a common suite of actions that are agreed by the agencies and that will inform policy development; and
- Provide early insights into industry structural shifts and trends that may require focused policy analysis and/or alternative responses.

Having clearly set out the agreed agency priorities and approach for sectoral development, the sector briefs were used effectively to contribute to the National Research Prioritisation

Exercise, the *Jobs Initiative* (2011) and *South East Employment Action Plan*. They were also used to inform the sectoral opportunities and supporting actions set out in the *Action Plan for Jobs 2012*.

Forfás also completed reviews of media ownership in Ireland and business continuity planning for severe weather for DJEI.

## The Games Sector in Ireland

In response to a request from industry and the enterprise development agencies, Forfás undertook an in-depth study into the games sector. The report, *The Games Sector in Ireland: An Action Plan for Growth*, published in 2011, sets out the:

- Areas of opportunity for the sector in Ireland in the context of an increasingly complex industry and intensified global competition; and
- Actions needed to support job creation and growth.

Forfás' research was complemented by consultation with business leaders in the games sector in Ireland and overseas, a global and country comparator analysis and valuable inputs from the enterprise agencies.

### Ireland's Potential for Growth

The report documents the phenomenal growth of the sector globally, particularly in the online games and social media segments. Ireland has already proven an attractive location for enterprise investment in the sector and currently is host to some of the biggest names in the industry globally (including Activision, EA, Zynga, Big Fish, PopCap, Havok, Demonware) together with a growing base of indigenous game development start-ups. Given our current strengths and dynamics within the sector globally, there is further growth potential for the sector in Ireland, in the following areas:

- Advanced game servicing - with a focus on customer intelligence gathering (analytics, player experience, online community management, localisation etc);
- Creative game development - building on the creative potential within Ireland and previous successes;
- Enabling technologies - including platform innovation, data mining and analytics, and cloud based business models; and
- Intellectual property exploitation and online publishing - including activities such as inter-company trading of IP, digital asset management, brand management franchising etc.

As a pioneer within the emerging digital economy, the games sector is a vital component of Ireland's enterprise mix. The report contends that a new way of thinking is needed in terms of policy responses to accommodate the fast changing nature of the sector and the real-time environment within which companies are structuring their business models in the digital economy context.

If the right actions are taken to stimulate further growth, the sector has the potential to more than double employment levels to 4,500 by 2014. This figure underestimates the impact of the industry's connectivity and inter-dependence with a broader range of related activities, including creative inputs from animation, TV/film production and advertising as well as infrastructures and services such as data hosting, outsourced payments, billing, localisation and information security.



## Launching the Forfás Action Plan for the Games Sector in Ireland

Pictured (l-r) launching *The Games Sector in Ireland: An Action Plan for Growth* are Richard Bruton, TD, Minister for Jobs, Enterprise and Innovation and Martin D. Shanahan, Chief Executive Forfás.

### Actions for Accelerated Growth

From an enterprise policy perspective an ambitious and decisive step change is required to deliver a more anticipatory, integrated and responsive regime to support the games sector (and broader digital economy) in Ireland. Creating dynamic interaction between firms, academia and the government system is a critical aspect. The actions set out in the report focus on six key areas, summarised below:

- Develop an international cluster: with the aim of stimulating connectedness between related sectors, nationally and internationally. A key step involves the establishment of a dedicated industry-led cluster development team.
- Enhance skills and experience: focused on addressing short term needs; developing industry aware graduates; and facilitating long term growth. Actions are focused on ensuring that Ireland can compete internationally to attract mobile highly skilled workers; addressing immediate technology skills gaps; increasing HEI-industry collaboration; and promoting awareness of the applicability of STEM subjects to the sector.
- Accelerate growth in creative content development through a number of initiatives, including the establishment of an international advisory panel and in the medium term, determining the potential to introduce a new financial instrument for content development.
- Build international visibility through coordinated promotion under the Innovation Ireland brand, and the hosting of a series of themed international games events;
- Increase awareness of RD&I activities within the games sector through hosting an R&D supports workshop, assessing the role of social sciences in games industry R&D and promoting reform of copyright law at EU level.
- Progressing the actions necessary to address barriers to investment in next generation broadband networks (NGNs) focused on areas of pro-investment regulation, infrastructure planning and investment and demand stimulation (Forfás has set out the actions required in relation to NGNs in *Ireland's Advanced Broadband Performance and Policy Priorities*, see page 80.

[The Games Sector in Ireland: An Action Plan for Growth](#)

## Life Sciences Alliance

Forfás continued to provide support to the Life Science Alliance that was established in January 2010 following publication of the Forfás study, *Health LifeSciences- An Enterprise Perspective* report (2009). The Alliance is chaired by Dr. Paul Duffy, VP External Supply Operating Unit, Pfizer. It brings together representatives from industry, DJEI, the enterprise development agencies, the healthcare system as well as the research community.

During the year the Alliance members played a role in:

- Influencing Government commitment to technology centres for pharmaceutical production, medical devices and connected health;
- Contributing to the success of the Convergence Council event on combination products in May 2011, which was attended by over 220 delegates from the healthcare sector, industry and academia;
- Contributing to the National Research Prioritisation Exercise, emphasising the research areas of fundamental importance to the future growth of the sector; and
- Contributing to the development of the *Programme for Government (2011)* and *Action Plan for Jobs 2012*.

A step change in innovation capacity and capability is essential for growth of the sector in Ireland, which requires a shift in how industry and health services engage with one another. There is an opportunity for firms based in Ireland to provide innovative products and services to the healthcare system - and to be part of the solution to deliver increased efficiencies and better patient outcomes. In this context, the priority for the Alliance for 2012 is to influence the:

- Delivery of a healthcare innovation hub to drive collaboration between the health system and commercial enterprises;
- Enactment of the Health Information Bill to support a conducive environment for health research in Ireland; and
- Development of a national approach to bio-banking encompassing a national policy and standardised practices and procedures.

[Lifesciences in Ireland: An Enterprise Outlook](#)

## Inter-Agency Cleantech Strategy

In April 2011, Forfás initiated a process to develop a coordinated interagency approach to the green economy working with representatives from DJEI, Enterprise Ireland, IDA Ireland, the SEAI as well as SFI, the Environmental Protection Agency (EPA) and the Marine Institute. This process is on-going and agency representatives meet on a regular basis.

From this work, an *Inter-Agency Green Economy Strategy* was developed in September 2011 which set out a cross-agency action plan for enterprise growth and jobs in the green economy. Specifically it identified:

- A pathway for a coordinated and urgent response from Government departments and agencies to address key barriers to realising sectoral growth potential. A key requirement is for Government to develop a commercial statement of intent on the green economy and establishment of a coordination structure to align the key actors in addressing policy

barriers. This statement of intent is currently being developed by the DJEI in line with Measure 7.3.1 of the *Action Plan for Jobs 2012*;

- Priority policy actions that the agencies have identified for the wider Government system include: implementing a coordinated commercial approach to the renewables sector; ensuring public investment and procurement processes are open to fostering new green technologies for export; addressing skills deficits in line with the EGFSN *Future Skills Needs of Enterprise within the Green Economy in Ireland* (2010) report; improving the concentration of key areas of green-related research; and improving branding coherence of Ireland's green image;
- The priority sub-sectors which the agencies are targeting as having the greatest potential for employment for Ireland are renewable energy (onshore, offshore, ocean, solar and microgeneration); smart grids; energy efficient goods and services; water and waste water; and low carbon transport; and
- The action plans which the individual agencies are committed to in the short term to facilitate employment creation in the priority areas.

This *Inter-Agency Green Economy Strategy* was submitted to the Minister for Jobs, Enterprise and Innovation and has since formed the basis of the recommendations on the Green Economy in the *Action Plan for Jobs 2012*.

## Smart, Green Agri-Food

During 2011, Forfás has engaged with a range of key stakeholders in the Irish agri-food sector (including the Department of Agriculture, Food and Marine, Teagasc, the Environmental Protection Agency, the Irish Dairy Industries Association, the Irish Co-Operative Organisation Society, Bord Bia and Enterprise Ireland) to assess, from an enterprise perspective, the policy options to reduce the emissions of greenhouse gases from the agricultural sector without impeding the sector from achieving targets as set out in the Government's *Food Harvest 2020 report*. This work has highlighted a number of key issues:

- *Food Harvest 2020* sets significant growth targets for the Irish agri-food sector. Improving sustainability can help the sector achieve these goals by driving improvements in product quality, increasing efficiency of inputs use (particularly in areas such as energy, fertiliser and feeds) and contributing to overall profitability and incomes for the agri-food sector. Improved sustainability also has an important role in reducing costs, particularly when the potential pass-through of Ireland's inability to meet EU emissions reductions targets through domestic action could have implications for the cost competitiveness of Irish agri-food.
- Decoupling growth of the sector from environmental impact is a key challenge and a range of demonstration initiatives are underway. To address the need to expand output in a planned way while reducing emissions intensity per unit of output, a range of actions at all levels of the food supply chain from farm to fork are required, working towards *Harvest 2020* farms as models of sustainability.
- In addition, enterprises and processors in Ireland are actively developing new systems and technologies that can be applied to drive productivity and sustainability. These technologies and services can be applied in Ireland but also be exported to significant

growth markets, which require improved systems in the face of rising demands for food.

There is a need to build consensus on realising *Food Harvest 2020* targets in a way that reduces emissions intensity per unit of output and which furthers the development of smarter, knowledge-intensive agri-food technologies. All actors at each level of Irish agri-food need to communicate nationally the potential of achieving the output increases in *Food Harvest 2020* and how sustainability can help achieve cost reductions and increase profitability in doing so. There is an opportunity to market Ireland internationally as a centre of excellence for sustainable produce, technology and farm systems. In addition, there is a need to improve incentives for mitigation actions in agri-food. A key priority in this respect is the roll out of a domestic offset scheme across the agriculture sector to incentivise change.

## Trade

### Trade and Investment Performance Report

The Government's Strategy on Trade, Tourism and Investment, launched in September 2010 sets out a series of actions for the sustainable recovery of the Irish economy, through export led growth. The impact of these actions needs to be continually assessed in terms of meeting the ambitious targets for growth in exports of goods and services and FDI.

The *Trade, Tourism and Investment* report draws on national and international data information as well as Forfás surveys to develop a wider understanding of the role of enterprise in enhancing Ireland's global position with regard to trade, tourism and investment. It brings together statistics on Irish trade and investment and provides analysis to inform policy making. In particular, it assesses progress towards the targets in the Trade, Tourism, and Investment Strategy, and forms an input into the work of the Foreign Trade Council. Overall good progress was made in 2011 towards the 2015 targets for indigenous export growth, tourism numbers, investment projects and new jobs creation.

### [Trading and Investing in a Smart Economy](#)

### Key Countries for Economic Partnerships

Globalisation and the rise of new economic powers has led to ever more complex international relationships between countries and companies. In the future Ireland will not be always in a position to act on its own and will need to partner with other countries, formally or informally, to achieve a combined action package based on pooled capacity and complementary strengths.

During 2011 Forfás commenced a project which reviews the performance and potential of emerging and high growth economies, their key strategic development priorities and national trade and investment plans. It has identified initial areas of opportunity areas for cooperation with several countries, in terms of economic linkages broadly defined, including foreign direct investment (FDI) and outward direct investment (ODI), exports and imports, R&D, education and tourism. Wide consultation has been undertaken with relevant agencies, government departments and businesses to assess the strategic opportunities and identify key areas of action. The outputs of this project are intended to supplement existing agency activity and will be developed at a strategic level. The work has been carried out in the



context of the Government's *Trade, Tourism and Investment Strategy*. China, followed by India and Japan, were the main emphases of this work in 2011.

Based on this work, Forfás will finalise an Ireland China strategic action plan by the middle of 2012. This is a coming together of work carried out by Forfás, Government Departments and agencies, academics, private sector and Chinese partners. It will outline a strategy for partnership, including trade, investment and sectoral development, flagship projects and improvements in framework conditions.

### **Impacts for Ireland of Trade Liberalisation Proposals**

As members of the European Union and the World Trade Organisation, Ireland is critically engaged in ongoing negotiations led by the European Commission to further open international markets to trade in goods and services. Forfás' role is in analysis of the likely economic impact of proposed trade deals.

The aims of this work are to assess as far as possible the potential effects of proposed agreements on the enterprise sector in Ireland, to better understand the impact of particular outcomes of the negotiations and to support DJEI in the negotiations at EU level on a common position to be taken by the Commission in reaching agreement with other countries and regional groupings.

# Knowledge & Innovation

## Science, technology and innovation working for business and Ireland

Innovation has no boundaries. It can come from suppliers and customers, competitors and employees, in Ireland or internationally. It can apply to any aspect of a business - new or improved products, services, technology applications, processes, designs and organisation structures. Innovation is one of the essential factors which will define the future success of enterprises in Ireland.

Forfás contributes to ensuring that science, technology and innovation (STI) policy initiatives deliver for enterprise in Ireland by gathering and analysing a strong evidence base on which to provide policy advice on key national and international STI issues.

We are the State agency with statutory responsibility to advise the Minister for Jobs, Enterprise and Innovation and Government on policy for science, technology and innovation.

We collect and analyse data from the national STI surveys we carry out.

We participate and facilitate Ireland's participation in international STI policy and research programmes and initiatives.

We monitor and evaluate national and international STI programmes to ensure Ireland can maximise participation and performance.

We manage the work of the Advisory Council for Science, Technology and Innovation (ACSTI), provide it with research and analysis and develop policy recommendations on the Council's behalf.

## R&D Surveys

Forfás carries out surveys and gathers and analyses data to monitor research and development and innovation activities in Ireland. In 2011 these included:

- [Science Budget 2010-2011](#)
- [Strategy for Science, Technology and Innovation - Indicators 2011](#)
- [Business Expenditure on Research and Development](#)

### Eurostat and OECD Data Provision

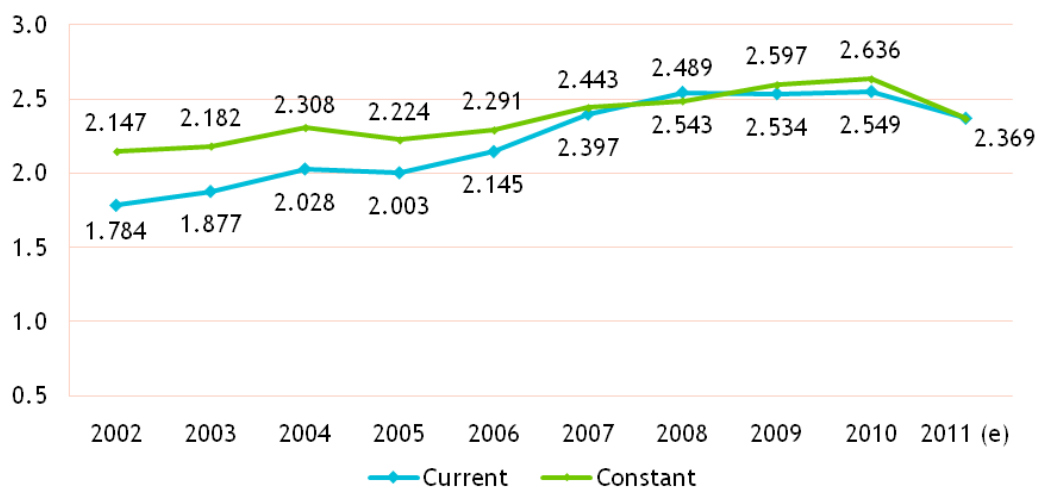
Ireland is mandated under European statistical law to provide Eurostat and the OECD with timely data on R&D in various sectors of the Irish economy. Forfás provides much of the data quarterly. The data relates to higher education R&D (higher education research and development (HERD)), business expenditure on R&D (BERD), gross expenditure on R&D (GERD), government expenditure on R&D (GovERD) including hospital-based R&D estimates, and government-backed appropriations and outlays on R&D (GBAORD). The data originates from surveys conducted by Forfás and the CSO on BERD (bi-annual), HERD (bi-annual), Science Budgets (annual), and the Community Innovation Survey (bi-annual).

### The Science Budget 2010-2011

The Science Budget monitors public funding and performance of State-funded science & technology (S&T) and research & development (R&D) and aims to capture key performance metrics within the State sector. This is an annual survey and mandated under Commission Regulation (EC) No 753/2004 and is carried out using the definitions, rules and guidelines set out in the OECD Frascati Manual<sup>6</sup>. This allows for a common dataset to be collected across all OECD and EU countries which facilitates better international comparisons and benchmarking. Data is collected on government expenditure and on the numbers employed in research and development. A total of 37 government departments and agencies were engaged in some form of S&T or R&D activity in 2010-2011. Overall science, technology, and research and development spending is estimated to have reduced in 2011 following a period of rapid growth. Many individual programme areas have seen cuts in expenditure. The key results of the current survey are summarised below.

<sup>6</sup> OECD (2002), Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development, OECD, Paris, [www.oecd.org/sti/frascaticmanual](http://www.oecd.org/sti/frascaticmanual)

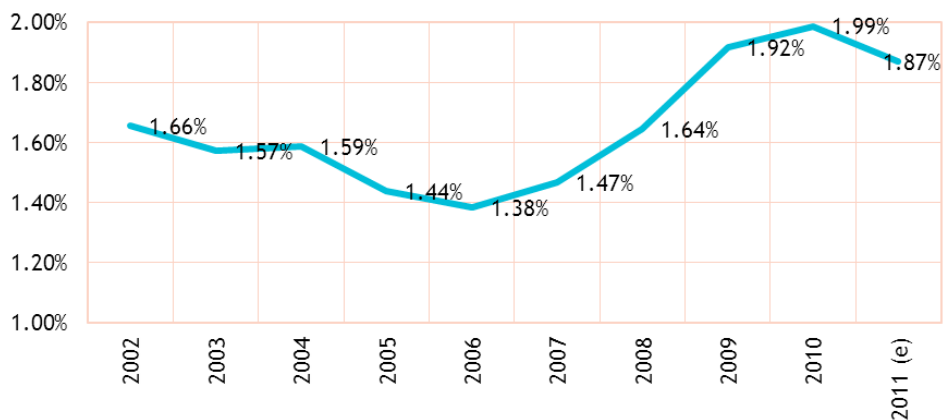
**Figure 7 Total Science & Technology Spend by the State, 2002-2011 (€bn.)**



Source: Forfás Science Budget 2010-2011

The total public S&T expenditure for 2011 is estimated at €2.369bn. In current terms, this represents a decrease of 7.0 per cent on the outturn figure of 2010 of €2.549bn. Allowing for inflation, the percentage decrease is 10.1 per cent.

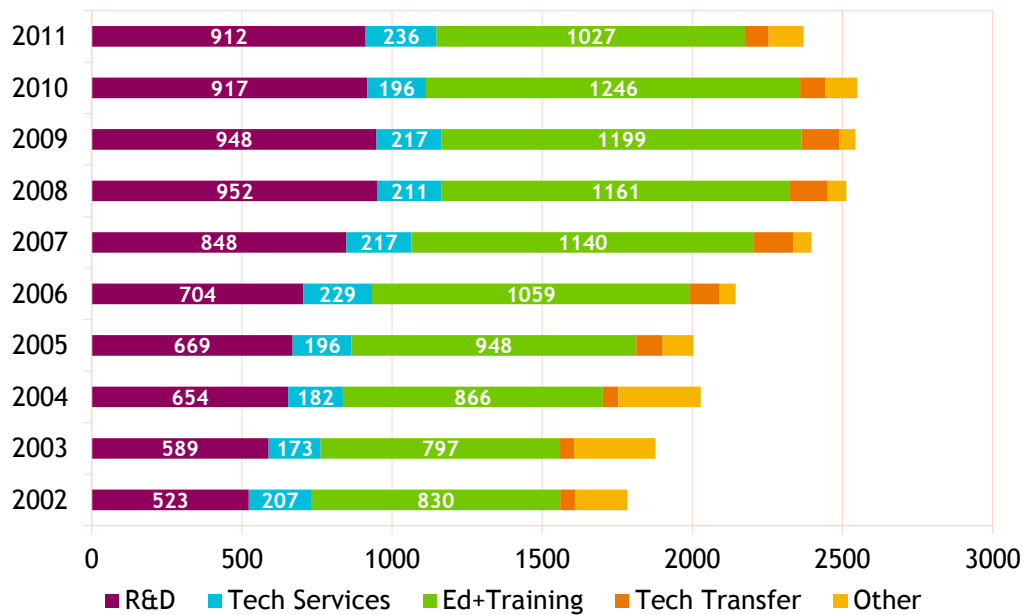
**Figure 8 Total Science & Technology Spend by the State as a Percentage of GNP, 2002-2011**



Source: Forfás Science Budget 2010-2011

The allocated expenditure for 2011 calculated against the estimated GNP figure for 2011 shows a decline of 0.12 per cent to an S&T spending intensity of 1.87 per cent of GNP.

**Figure 9 Total Science & Technology Spend by Activity, 2002-2011 (current prices €m)**



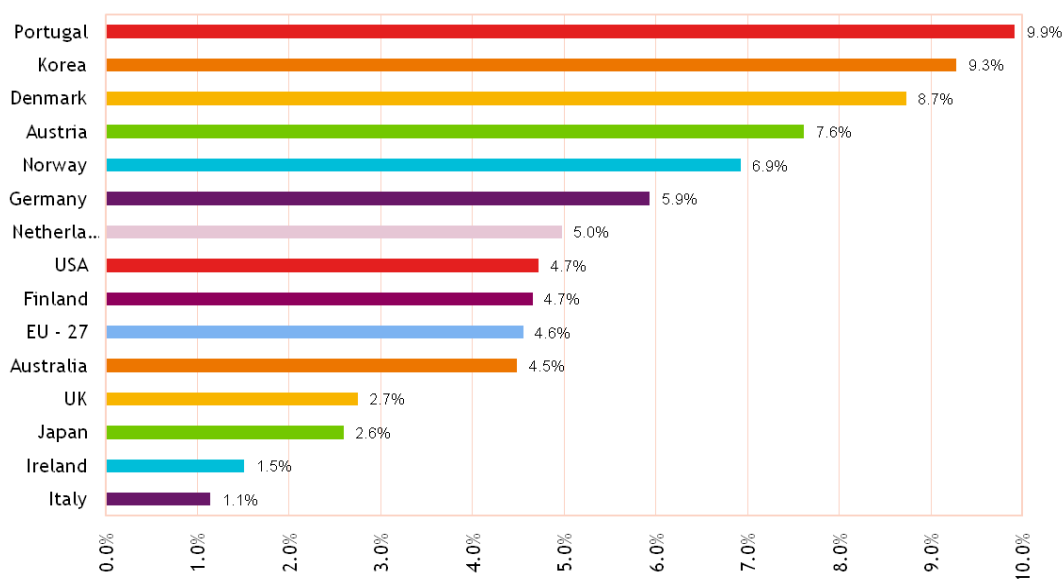
Source: Forfás Science Budget 2010-2011

Looking at the different components of State S&T spending, the largest decline in estimated expenditure in 2011 is in the area of S&T education and training. Between 2010 and 2011 State-funded S&T spending in this area is estimated to have declined from €1.25bn to €1.03bn. Spending in the key area of research and technology is being maintained with funding going from €917m to €912m, a marginal decrease of 0.5 per cent.

### International Comparison of R&D (GBAORD) as a Percentage of GDP/GNP (2010\*)<sup>7</sup>

Finland, with government-backed appropriations and outlays on R&D (GBAORD) spending of 1.07 per cent of GDP, is one of the strongest performing OECD countries followed by Portugal at 1.02 per cent of GDP. The latest available EU (27 countries) average GBAORD intensity is estimated to be around 0.6 per cent of GDP, slightly less than Ireland's rate.

**Figure 10** International Comparison of Average Annual Growth Rate of R&D, 2005-2010



Source: Forfás Science Budget 2010-2011

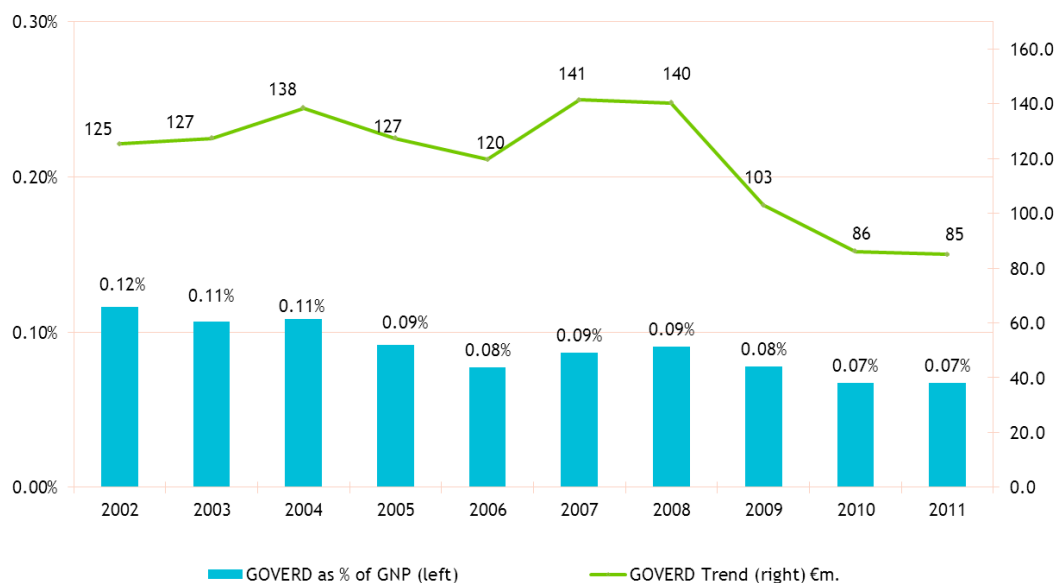
A comparison of the growth in Ireland's average spend on civil research and development since 2005 compared to a selection of other countries where data is available shows Ireland with a low rate of 1.5 per cent over the period, as illustrated in Figure 10.

Ireland's growth rate at 1.5 per cent is lower than the EU (27 countries) average of 4.6 per cent over the same period.

<sup>7</sup> OECD - Main Science & Technology Indicators, 2010, Vol. 2. All GBAORD data used in these graphs is 'civil' GBAORD i.e. excludes defence expenditure.



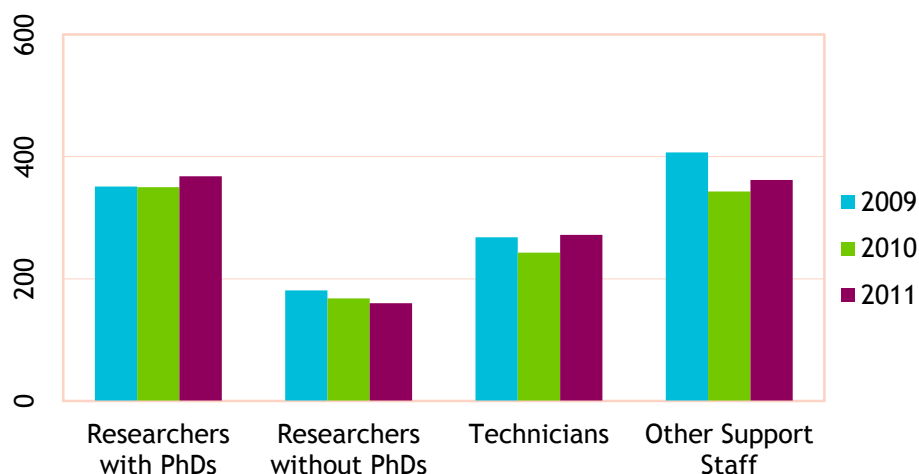
**Figure 11 R&D Performed within the State Sector (GOVERD<sup>8</sup>) - Trend & as a Percentage of GNP, 2002-2011**



The 10-year trend shows that levels of Government Expenditure on R&D are now at their lowest level and expenditure on R&D performed in the State sector has fallen from a high in 2007 of €141m to the current allocation of €85m (Figure 11). Examples of Government Department and Agencies performing R&D are Teagasc, The Marine Institute and the Department of Agriculture, Food and the Marine.

GOVERD as a percentage of GNP over the ten-year period from 2002 to 2011 is also illustrated in Figure 11. This shows that, as a percentage of GNP, the level of R&D performed within the State sector has dropped from 0.12 per cent in 2002 to 0.07 per cent in 2011.

**Figure 12 Total R&D personnel by Occupation in Government Sector (Headcount, 2009-2011)**



Source: Forfás Science Budget 2010-2011

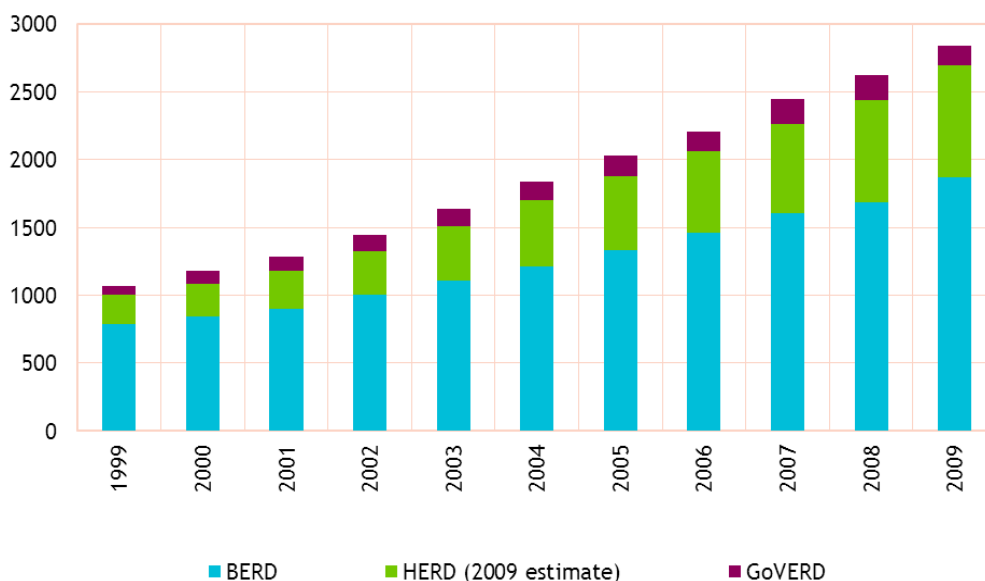
8 GOVERD - Government Expenditure on R&D

The Forfás *Science Budget* shows that overall the number of personnel engaged in R&D in institutions within the government sector increased slightly in 2011 over the numbers recorded for 2010. Between 2010 and 2011 the number of PhD researchers has increased by 5.1 per cent, while researchers without a PhD have decreased by 4.8 per cent over the same period. The number of technicians are expected to increase by 11.9 per cent in 2011 over 2010. There has also been an increase in the number of research support staff of 5.5 per cent in 2011.

### Strategy for Science, Technology and Innovation - Indicators 2011<sup>9</sup>

The principle of the Strategy for Science, Technology and Innovation<sup>10</sup> (SSTI) is that excellence in research and increased innovation in the enterprise sector can help accelerate Ireland's economic restructuring and help us to get back on the path of sustainable growth. In 2011 Forfás prepared a progress report on the key metrics in the SSTI and the *SSTI Indicators Report* provides specific data on key indicators for monitoring progress on our investment in STI and the quantifiable returns on that investment to date. An overview of the range of activities being undertaken by Government Departments and State agencies charged with delivering on implementation of the strategy is also included. Some key indicators are now illustrated.

**Figure 13** Gross Expenditure on R&D (GERD), €m current prices, 1999-2009



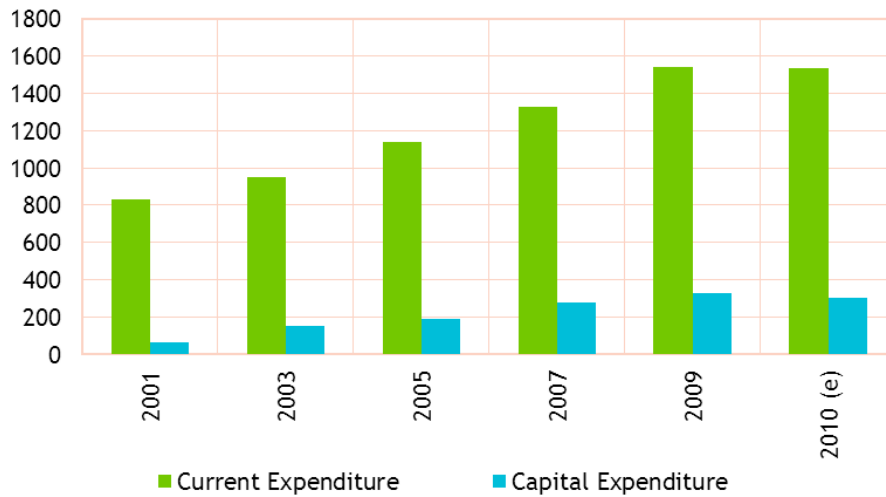
Source: CSO/Forfás, derived from the Survey of R&D in the Business Sector, 2009/10; Forfás Survey of R&D in the Higher Education Sector, 2008; Forfás R&D Funding and Performance in the State Sector 2009/2010.

<sup>9</sup> Strategy for Science, Technology and Innovation - Indicators, DJEI & Forfás, December 2011  
<http://www.forfas.ie/publication/search.jsp?ft=/publications/2011/title,8702,en.php>

<sup>10</sup> Strategy for Science, Technology and Innovation 2006-2013, DETE, June 2006  
<http://www.djei.ie/publications/science/2006/sciencestrategy.pdf>

GERD increased from €2.03bn in 2005 to €2.84bn in 2009. Approximately two-thirds of GERD is undertaken by private industry in Ireland, which is similar to the OECD average (69.6% in 2008) and above the EU average where only half of total R&D is funded by the enterprise sector. The higher education sector performs about 29.4% (17% across the OECD) of the total, while the Government sector spends 4.3% of the total (the OECD mean is 10.9%).

**Figure 14: Business Expenditure on R&D (BERD<sup>11</sup>), 2001-2010,€m, Current and Capital**



Source: Forfás/CSO Business Expenditure on R&D Survey 2009/2010

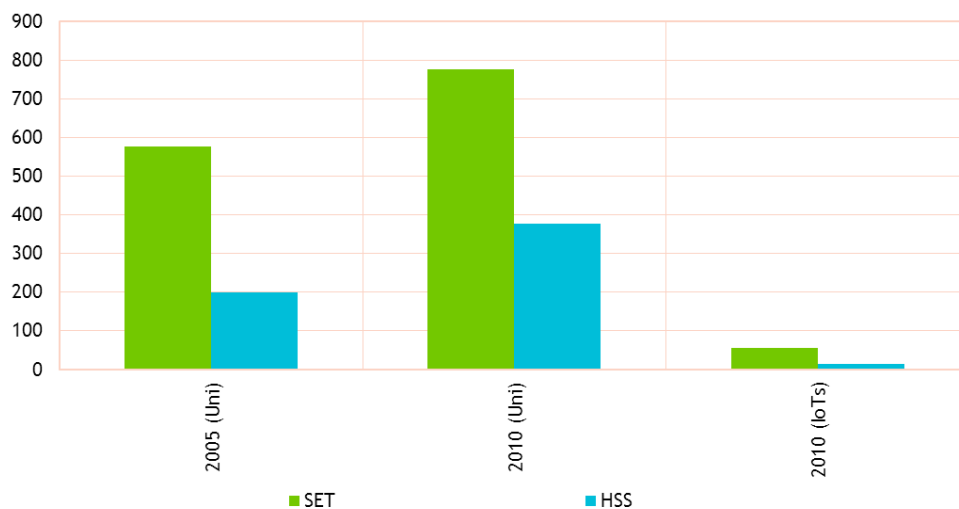
A breakdown of business expenditure shows that the largest share is on current costs, i.e., people, although capital investment remained strong over the period

### Human Capital

The expansion of the fourth level sector (Masters and PhD, Levels 10/11) continues apace. The number of student enrolments in science, engineering and technology (SET) and humanities and social sciences (HSS) postgraduate programmes in universities are increasing.

11 Business Expenditure on Research and Development 2009/10 (BERD), CSO & Forfás, April 2011

**Figure 15 PhD Graduates from Universities 2005 & 2010 (Inst. Of Technology 2010)**



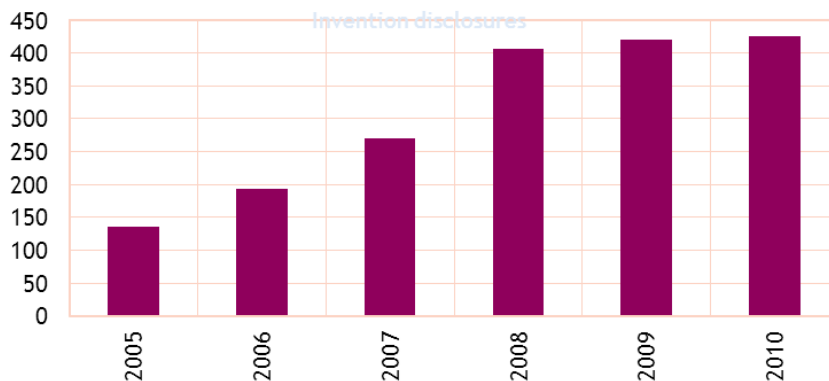
Source: Forfás analysis of HEA Student Enrolment data

PhD graduates increased from 774 in 2005 to 1,153 in 2010 from the university sector (+48%). SET PhDs graduates increased by 34% over the period in line with the target in the SSTI from 576 in 2005 to 776 in 2010 (96.8% of SSTI target of 801), with an additional 56 SET PhD graduates from the IoT sector. In HSS disciplines, PhD graduates increased from 198 in 2005 to 377 in 2010 from the university sector, an increase of 90% on 2005, (33.6% ahead of SSTI target of 282). There were also 13 HSS PhD graduates from the IoT sector in 2010.

**Indicators of R&D Activity**

Indicators show an increase in R&D activity during the period of the *Strategy on Science, Technology and Innovation*. Licence agreements between industry and publicly backed research organisations increased dramatically during the period 2005 to 2009 but fell slightly in 2010.

**Figure 16 License Agreements between Public Research Organisations and Firms, 2005-2010**



Source: Enterprise Ireland

## Conclusions

- Overall, the evidence suggests that the sustained increases in public and private research inputs and outputs to 2008-2009 have undoubtedly helped export resilience with a broader base of enterprises engaging in R&D and innovation activity and the intensity levels of R&D in enterprises increasing.
- However, latest data for 2010-2011 indicates that there has been some scaling back in public spend and some moderation on output measures. While this is understandable in the current economic context, further erosion of publicly funded R&D would impact on the progress being made in increasing firm level innovation capacity and on export performance, given the traditionally strong relationship between these variables.
- Ireland needs to continue the sustained growth trajectory in indigenous R&D spend in particular in manufacturing if it is to continue to win export markets.
- What is also clear from the data is that modern and R&D-performing sectors have sustained output and export growth during the economic recession. The number of firms undertaking R&D and their R&D intensity has increased, towards the sectoral international averages, but further progress is needed to bring firm level performance to that of competitors internationally. There has been a marked increase in commercialisation activity from higher education institutes. Ireland is on track to achieve increases in human capital output, with science and engineering output on target for 2009 and ahead on the target for humanities and social sciences.
- Public sector research outputs have experienced a decline from 2008. It is likely that a lag effect of recent expenditure reductions may additionally impact future outputs. International competitiveness of research is improving, with an increase in citation impacts and EU FP7 funding is on target for €600m to 2013.

## Business Expenditure on Research and Development (BERD)

The *Business Expenditure on Research and Development 2009/2010* (BERD) Survey is a biennial survey of the research and development activities of enterprises in Ireland. The BERD survey is required under EU Commission Law. The survey collected information about the research and development activities of enterprises across all business sectors of the economy and is jointly conducted by Forfás with the CSO to increase efficiency in the collection of statistical data and to reduce the burden on the participating enterprises. Final results for 2009 and estimates for 2010 were released in the current survey which was finalised in April 2011.

Results indicate that enterprises across all business sectors spent almost €1.87bn on R&D in Ireland in 2009, with estimates for 2010 of €1.83bn. Nearly 83 per cent of all spending in 2009 was on current expenditure, with enterprises spending €947 million on labour costs and €595 million on other current costs. Enterprises spent €222 million on instruments and equipment (excluding software) along with almost €50 million on land and building costs. Almost €24 million was spent on payments for licences to use intellectual products, while nearly €28 million was spent on software purchased wholly for R&D purposes, together with €2.7 million on software development in house and used in-house. There were almost 15,800 persons engaged in R&D in Ireland in 2009. In total there were 8,960 researchers, of which 1,639 were engaged as PhD-qualified researchers, 3,572 technicians and 3,241 support staff. There were 11,959 full-time equivalent (FTE) research staff in Ireland in 2009. Almost 1,500

of these FTEs were PhD-qualified researchers, while there were more than 6,250 other FTE researchers.

There were almost 1,300 enterprises engaged in R&D in Ireland in 2009. More than two-thirds of all enterprises spent up to €500,000 on R&D activities, while about 10 per cent spent €2 million or more.

## Research Prioritisation

The Research Prioritisation Steering Group was established by the Government in September 2010. The group was tasked with identifying a number of priority areas around which public investment in research and development (R&D) should be focused in the years ahead. The previous decade witnessed consistent and considerable public and private investment in Science, Technology and Innovation (STI) and it was judged timely to build on the strengths that have emerged from this investment and to focus future investment in areas most likely to deliver economic impact. The 17 member group, chaired by Jim O'Hara, was asked to report by September 2011.

As secretariat to the group, Forfás undertook extensive analysis to underpin the national research prioritisation exercise and managed an extensive programme of stakeholder engagement.



### Research Prioritisation Steering Group

Pictured are (back row l-r) Martin Shanagher, Sean Dorgan, Prof. Brian McCraith, Dr Tom McCarthy, Dr Alastair Glass, Ian Quinn, Prof. Nicholas Canny, Maurice Roche. Front row (l-r) Martin Naughton, Kevin McCarthy, Marion Coy, Jim O'Hara, Martin D. Shanahan, Prof. Frances Ruane, Prof. Patrick Cunningham. Steering Group Members not photographed: Prof. Frank Convery and Brian J Hayes.



The group:

- Established thematic working groups to consult with stakeholders and recommend priority areas to the Steering Group;
- Agreed a set of criteria to be used on a consistent basis across each of the thematic working groups to identify the priority areas; and
- Gathered a substantial amount of information through formal studies and structured stakeholder engagement in order to assess the extent to which proposed areas met the agreed criteria.

The four high-level criteria used by each of the thematic working groups are set out below:

1	The priority area is associated with a large global market or markets in which Irish-based enterprises already compete or can realistically compete
2	Publicly performed R&D in Ireland is required to exploit the priority area and will complement private sector research and innovation in Ireland
3	Ireland has built or is building (objectively measured) strengths in research disciplines relevant to the priority area
4	The priority area represents an appropriate approach to a recognised national challenge and/or a global challenge to which Ireland should respond

Following deliberations and further stakeholder engagement on the recommendations of the thematic working groups, the Steering Group submitted its report to Government. The Steering Group identified 14 priority areas (see below) which will become the focus of publicly performed R&D in Ireland for the coming five years. The priority areas are underpinned by research across many fields and some of the important underpinning science and technology platforms are identified in the report. The Steering Group also identified the important role that research for policy, and research for knowledge, play in a sustainable and well-functioning STI system. To accelerate the economic impact of publicly performed research and development, the Steering Group made 13 recommendations on the efficiency and effectiveness of the funding system.

### Priority Areas

Priority Areas	Description
Future Networks and Communications	<p>Address the challenges of scalability, capacity, throughput, mobility and trust of the internet, including the use of:</p> <ul style="list-style-type: none"> <li>▪ Network and Service Management - how to best manage and serve the network given new demands from devices and applications.</li> <li>▪ Fixed, Mobile and Wireless Communications - Enabling connection and collaboration.</li> </ul>

<b>Data Analytics, Management, Security and Privacy</b>	<p>Turning data into information and ultimately knowledge that can be exploited for both economic and social benefit. It has two major components:</p> <ul style="list-style-type: none"> <li>▪ Data Analytics and Data Management- Managing data as a resource and converting it into useful information.</li> <li>▪ Security and Privacy- Protection of information and regulation of data.</li> </ul>
<b>Digital Platforms, Content and Applications</b>	<p>Development and delivery of products and services to improve productivity of enterprise and enhance quality of life. It includes:</p> <ul style="list-style-type: none"> <li>▪ Digital Content and Applications- content development and the development of applications in areas such as eGaming, eLearning and eTourism.</li> <li>▪ Human-machine Interface, multi-media, multi-modal service creation environment.</li> </ul>
<b>Connected Health &amp; Independent Living</b>	<p>Focus on technologies that facilitate delivery of healthcare and assisted living remotely, moving the emphasis of care to the patient in their own home. Connected health and independent living technologies have the potential to transform health care and services delivery worldwide, reducing burdens on health systems and improving quality of life and independence of our ageing populations. This is an emerging area and there is an opportunity to position Ireland as a proving ground for connected health solutions.</p>
<b>Medical Devices</b>	<p>Further strengthening Ireland's position as a hub for medical devices, through integrating existing enterprise and research strengths to drive development and manufacture of next generation medical devices here.</p>
<b>Medical Diagnostics</b>	<p>Ensuring that research strengths developed over the last decade of investment are fully exploited. Ireland has developed significant research capacity in a range of areas that underpin development of diagnostics, including biomedical research, nanotechnology, materials and photonics and opportunities for commercialisation in emerging growth areas such as personalised medicine/companion diagnostics; nutrition related diagnostics; veterinary diagnostics, point-of-care devices and applications in connected health, should be promoted through focused investment and/or coordination.</p>

<b>Therapeutics</b>	Developing competence and activity in pre-manufacturing research, technology and development areas responding to an industry need for support, and to ensure a supply of graduates who will become employed in in-house development operations. Drug delivery is also an opportunity for development of indigenous companies based on innovative drug delivery systems, and Ireland has significant enterprise and research capacity.
<b>Food for Health</b>	Building the capacity to develop and produce functional foods or ingredients in Ireland. The challenge is to ensure full integration of the research base and enterprise to enable discovery, development and delivery of new functional ingredients and foods.
<b>Sustainable Food Production and Processing</b>	Sustainable, competitive and efficient: <ul style="list-style-type: none"> <li>▪ Agri-food production including land-use optimisation &amp; forestry;</li> <li>▪ Marine - wild fish harvesting &amp; aquaculture; and</li> <li>▪ Food processing incl. manufacture of safe, value added &amp; innovative foods.</li> </ul>
<b>Offshore Marine Renewable Energy</b>	Positioning Ireland as a research, development and innovation hub for the deployment of off-shore marine renewable energy technologies & services and to develop early stage marine energy & marine ICT industries. Through the commercialisation of our marine resources Ireland could become a net exporter of electricity.
<b>Smart Grids &amp; Smart Cities</b>	Development of smart grids and smart cities using a layer of technologies including software, sensor hardware and control and interface systems.
<b>Manufacturing Competitiveness</b>	Development and application of technology and knowledge management systems to reduce costs, eliminate waste and to improve product quality for increased competitiveness.
<b>Processing Technologies and Novel Materials</b>	Enhancing capabilities in processing technologies and materials to remain competitive in high tech, high value added manufacturing.
<b>Innovation in Services and Business Practices</b>	Enabling both the manufacturing and service sectors to respond to the growing importance of services and to facilitate innovation in service offering and delivery and in business practices.

Following the recommendations of the Steering Group, it has been agreed by Government that the majority share of Exchequer funding awarded on a competitive basis for research performed in the higher education sector and in public research organisations will be focused on the areas identified by the group, with scope left also to pursue other policy focused and evidence based research.



### Turning Good Ideas into Jobs

Pictured at the launch of the Report of the Research Prioritisation Steering Group are; Richard Bruton, T.D., Minister for Jobs, Enterprise and Innovation, Sean Sherlock, T.D., Minister for Research and Innovation and Jim O'Hara, Chairman of the Research Prioritisation Steering Group

On publication of the Report, the Government announced the establishment of a Prioritisation Action Group, chaired by Minister Sherlock and supported by Forfás, which will oversee implementation of the recommendations of the report. Membership of the Group, which will report to the Cabinet Committee on Economic Recovery and Jobs, will include all Government Departments and agencies which are responsible for research budgets.

[Report of the Research Prioritisation Steering Group](#)

## International Research and Innovation Policy

Forfás takes part in high level international research and innovation policy fora at both European and wider international levels to input Irish views on behalf of DJEI. These fora include the European Research Area Committee (ERAC) and the OCED Committee for Scientific and Technological Policy (CSTP) where Forfás contributes the Irish view on enterprise policy, and maintains and grows its knowledge levels in the area to enhance the development of relevant policy.



### Commissioner Máire Geoghegan-Quinn visits Forfás

In 2011, Forfás welcomed Commissioner Máire Geoghegan-Quinn to discuss projects contributing to the enterprise, research and innovation agenda in Ireland. Pictured (l-r): Dr Jacqueline E. M. Allan, Martin D. Shanahan, Commissioner Geoghegan-Quinn and Karen Hynes.

### Representing Ireland on the European Research Area Committee (ERAC)

The European Research Area Committee, formerly CREST, was established in 2010 and is a strategic advisory body which assists the European Commission and the Council of the European Union in their work in the sphere of research and technological development. ERAC has a strong role in advising the Commission and Council in areas such as the EU RTD Framework Programmes (FP7 and Horizon 2020), the ERA Framework and the RTD&I priorities for the EU Presidency. It is chaired by the Director General of the Commission's Directorate for Research and Innovation.

Forfás participates in ERAC with the Department of Jobs, Enterprise and Innovation (DJEI), and has always attached particular priority to and argued for the link between research and innovation which is now well recognised in emerging EU policy. Forfás, in conjunction with DJEI and its other agencies, consults on an ongoing basis with key stakeholders on core policy issues discussed at ERAC to ensure that the views of Ireland and Irish enterprise are communicated at European levels and that the Irish community is kept informed of European developments.

At the February 2011 Competitiveness Council, Ministers committed the European Union member states to achieving the European Research Area (ERA) by 2014. This decision reflects the main priority in the mandate of the Commissioner for Research and Innovation, Commissioner, Máire Geoghegan-Quinn, "to take a decisive step forward in building the European Research Area".

The objectives of the ERA are to address the needs for:

- Supplying first class human resources for research and an open, attractive and competitive single European labour market.
- Facilitation of cross border operation of research, researchers and research institutions within the EU (coordination and integration of research funding in the EU).
- Developing and maintaining world-class infrastructures, and ensuring access to them.
- Enhancing knowledge circulation within Europe and beyond.

- Enabling the EU to be a attractive strategic partner and to engage in effective international cooperation.
- Ensuring an effective overall EU research policy strategy in a coordinated manner at and between member state and EU level.

The European Commission is carrying out preparatory work to achieving the ERA including exploring all possible barriers which continue to hamper its timely completion and all possible actions to remove such barriers. It is of great importance that Ireland continues to participate in, and influences the development of, the ERA to ensure a good fit between European and national goals, policies and funding. To assist in developing policy on the ERA at European level, Forfás, on behalf of Ireland, was invited to join the extended steering board of ERAC and participated actively in developing the ERAC Opinion on an ERA Framework (ERAC 1215/11, 9 Dec 2011) as requested by Ministers in May 2011, including acting as rapporteur for the ERAC stakeholders seminar to launch the public consultation on the ERA Framework which took place on 13 September.

The European Commission intends to make a proposal in mid-2012 for an ERA Framework, which will be the means by which the EU co-ordinates and supports all its activities in research and technological development and innovation in 2014-2020, including the environment for the new research and innovation funding programme, Horizon 2020 (see page 73).

### International Co-operation Activities

In addition to its participation in ERAC, Forfás was an active participant in the EU Strategic Forum for International Scientific and Technological Cooperation (SFIC) in the first half of 2011 and in the OECD Committee for Scientific and Technological Policy (CSTP).

The Strategic Forum for International Scientific and Technological Cooperation (SFIC) is a dedicated configuration of the European Research Area Committee (ERAC) with an aim to facilitate the further development, implementation and monitoring of the international dimension of the European Research Area. Its work largely involves information sharing and consultation between member states, associated countries and the Commission to identify common priorities, with respect to third countries, which could lead to coordinated or joint initiatives. SFIC is composed of high level representatives of the member states and the European Commission. In the first half of 2011, Forfás undertook the role of Irish delegate to SFIC on behalf of the Minister for Jobs, Enterprise and Innovation, the role being passed to DJEI in the second half of the year. Forfás, on behalf of Ireland, supported the SFIC proposal to target China, the USA, Brazil and India as key countries for the focus of cooperation activities.

The OECD CSTP promotes international cooperation and policy coordination in areas of STI policy at global levels between over 30 countries including the US, the EU, Japan and Korea. Forfás also engages with its Working Parties on Nanotechnology (WPN); Innovation and Technology Policy (TIP) and research infrastructure and global RTD&I (the Global Science Forum).



### Engagement on International Research Infrastructure and Global Science Forum

The provision of and access to appropriate research infrastructure (including e-infrastructure) is essential for high-quality research and development in Ireland, including public-private sector collaborative work. Given the amount of national investment in science and technology to date and the ongoing commitment into the future, it is important that Irish researchers can access the most suitable infrastructure for their work, be that in Ireland or abroad. Participation in the European Strategic Forum on Research Infrastructures (ESFRI) enables Forfás and the Higher Education Authority (HEA), as national co-delegates, to foster information exchange and dissemination and to facilitate national and European decisions at policy level on matters relating to European research infrastructure.

During 2011 the national co-delegates hosted quarterly meetings of institutional, agency and governmental representatives to discuss the status of the ESFRI projects on the ESFRI roadmap in which Ireland is involved, exchange good practice and address any issues arising from a national or European policy perspective. Participation by Forfás facilitates the connection between the industry agenda with decisions being made on infrastructure at European Union level.

### Advisory Council for Science, Technology and Innovation

The Advisory Council for Science, Technology and Innovation (ACSTI) is the Government's high level advisory body on science, technology and innovation (STI) policy issues and is a sub-Board of Forfás.

It is the primary interface between stakeholders and policymakers in the STI arena. The Council's remit is to contribute to the development and delivery of a coherent and effective national strategy for STI and to provide advice to Government on medium and long term policy for STI.

Forfás manages the work of ACSTI and provides it with research and analysis. ACSTI is appointed by the Board of Forfás. In 2011 the Council concentrated on the following areas:

- Sustainability of Research Centres
- Developing the New Framework Programme for Research and innovation, Horizon 2020
- Submission to the National Research Prioritisation Exercise

### Sustainability of Research Centres

The portfolio of State supported research centres has evolved rapidly over the past decade through significant funding by a number of Government departments and agencies and the higher education institutions and now forms a substantial part of the publicly funded research base. A diverse range of different funding models currently exist in the Irish research centre landscape.

The ACSTI report, *Sustainability of Research Centres*, finds that there is a broad range of issues in relation to sustainability of research centres. These are linked to the mix and profile of research centres in the landscape, the need for oversight of the landscape to meet RD&I requirements and the need for funding models to achieve individual centre

sustainability. The study also finds that a gap exists in the current State supported research centre landscape compared to other jurisdictions that needs to be addressed to fully support the commercial opportunities emanating from research.

The recommendations set out in the report are aimed at optimising the future return on State investment in research centres. They are based on a premise that not all centres can or should survive indefinitely, but that they should be funded in a manner that enables them to evolve and deliver on their expected outputs, in a sustainable manner. The report provides a vision for the future research centre landscape, a framework for achieving this through oversight of the landscape and a set of funding model guides.

## Key Findings

### Research Centre Landscape

- Categorising the Irish centres according to their central mission provides for a more simple language with which to discuss the characteristics of the research centre landscape - both in the public system but also importantly with external stakeholders. It is recommended that stakeholders recognise that the current set of State-supported centres fall into one of four groups: academic centres, academic-industry centres, industry focused centres, mission & sector focused centres.
- To provide clarity it is imperative that the emphasis on the balance of academic and commercial outputs expected from different centres is made clear. Thus, it is recommended that a common set of indicators is developed for the centres and that indicator targets that clearly indicate the balance between academic and commercial metrics should be set for each centre.
- Adequate funding for centres is needed to achieve an appropriate level of scale and the appropriate set of skills to support the centre's capability to maximise its opportunities for delivering on its research objectives. Given the current fiscal situation in Ireland it is considered that the best potential returns on the State investment in research centres will come from appropriately funding a smaller number of centres, rather than spreading the constrained funding budgets too thinly.
- Based on inputs from industry, and in taking guidance from other comparator locations, it would appear that the development of research and technology organisations (RTOs) is a natural part of the progression in developing a well rounded national innovation system. RTOs are focused on applied research directed at medium term industry needs as well as shorter term technology development and technical services for industrial clients (they fit in the industry focused centres group). It is in this context that it is recommended that a funding scheme should be initiated by State funders to support the possible transition of existing centres and/or the introduction of new centres with a view to developing a small number of RTOs over the next 10-20 years.

### Oversight

- It is recommended that on behalf of Government, DJEI should establish groups as required to take on the role of strategically overseeing the performance of the research centre portfolio to ensure an optimised network. This would also include collecting and analysing data relating to the performance of the research centre landscape.

## Sustainability of Individual Research Centres

The report recommends that guidance should be provided on funding models to ensure clarity for research centres, for State funders and policy makers, and for external stakeholders.

- Funding Diversification
  - National funders should use the archetypal models developed in this report as a guide to setting expectations on the different funding sources that centres should pursue. The proportion of overall funding that centres should strive to achieve from each source should also be set by national funders.
  - State-supported centres should be incentivised to increase their level of non-exchequer income, as appropriate to the key objectives of a centre.
  - Incentives and initiatives need to be continued to drive increased industrial interaction with State supported research centres.
- People
  - The report also contains guidance on the support for operational staff, research staff, and research support staff.
- Equipment
  - Funding mechanisms should be put in place to support and sustain equipment sets (including maintenance funds and funding for specialist operators).
- Base/Core Centre Funding
  - It is recommended that higher education institutions (HEIs) and national funders design and document a set of potential options for base/core centre funding opportunities for centres completing a fixed term funding period.

The report concludes that it is a more appropriate use of Government department and agency funds to support a smaller number of research centres than exists today, and to re-divert some funding towards resolving centre sustainability issues and the development of new centres.

Two significant studies were conducted as input to *ACSTI Sustainability of Research Centres - Research Centres in Ireland and The Publicly Funded Research Centre Landscape in Ireland in 2011*. The first report, *Research Centres in Ireland: Funding Models, Oversight Mechanisms and Vision of a Future Centre Landscape* presents a comparative analysis of Irish research centres and centres located primarily in three selected locations (Sweden, Finland and Catalonia) based on:

- Funding models of individual centres with a focus on sustainability of the centres;
- The profile or landscape of the portfolio of research centres in each location; and
- Mechanisms for portfolio management or oversight of the group of centres.

The report also presents a classification methodology for the research centres in a particular location based on a scale for mapping research centres in broad alignment with the rationale for public funding support and research centre location.

The second report, *The Publicly Funded Research Centre Landscape in Ireland in 2011* presents a series of maps of the publicly supported research centre landscape in Ireland in 2011. The research centre landscape has been mapped according to a number of key centre characteristics with a view to providing baseline information to inform and bring clarity to discussions as we look to strategically evolve the research centre landscape sustainably in the future.

### Developing the New EU Framework Programme for Research and Innovation, Horizon 2020

The European Commission published its Green Paper entitled *From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation Funding* in February 2011 and launched a public consultation on the paper. The extensive Irish national consultation was managed by Forfás, under the auspices of ACSTI, for DJEI. This included the management and secretariat support, the provision of a web based national consultation as well as holding two consultation workshops for public sector and private sector stakeholders respectively which were attended by a senior representative from the European Commission.

The Common Strategic Framework proposes a simplified and integrated European framework for funding from 2014 to 2020 which will provide complementary supports across the research and innovation cycle from conception to commercial application. It proposes bringing together the Framework Programme (FP) for research and technological development, the innovation aspects of the Competitiveness and Innovation Programme (CIP) and the EU contribution to the European Institute of Innovation and Technology (EIT).

In the Irish national submission, which was presented to the European Commission at the end of May 2011, Ireland welcomed the proposal for a simplified and integrated European framework which will provide complementary supports across the research and innovation cycle from conception to commercial application but cautioned that a period of well-managed transition will be needed in progressing in a measured way from the existing system for research and technological development to a common strategic framework for research and innovation. No further large new measures are seen as necessary at this time, but rather a period of consolidation.

This national submission by the Irish Government is a first stage of input in defining the guiding principles, structure and content of the common strategic framework which will be known as Horizon 2020. The next, more substantive preparatory phase of the development of Horizon 2020 must seek agreement on the content and specific thematic priorities and/or grand challenges to be addressed. This national submission will act as the guiding document through this preparatory phase which will extend out to the end of 2013.

Ireland advocated the following key priorities:

- Fostering Co-operation;
- Developing Researchers;
- Mainstreaming Innovation;
- Commercialising Outputs;
- Supporting SMEs;
- Addressing Grand Challenges;

- Promoting Inclusiveness; and
- Implementing Consistently.

In November 2011, the European Commission released its Communication, *Horizon 2020 - The Framework Programme for Research and Innovation*<sup>12</sup>. That Communication outlines proposals for an 80 billion euro research and innovation funding programme (2014-2020) complementing, inter alia, Structural Funds and education, and responding to the economic crisis by investing in jobs and growth, addressing the concerns of citizens about livelihood, environment and safety and strengthening the position of the European Union in research, innovation and technology.

In December ACSTI led a national consultative workshop, managed by Forfás, at the request of DJEI, on the Commission's communication to draw on the insights of the research community, both public and private sector, to highlight areas for action by Ireland, other member states and the European Commission in developing Horizon 2020.

[Playing Our Part: Statement on Horizon 2020](#)

### Submission to the National Research Prioritisation Exercise

Following a previous recommendation by ACTSI for the implementation of a priority setting mechanism to validate the areas or disciplines in which State investment in research should be concentrated, ACSTI was a key contributor to the National Research Prioritisation Exercise in 2011. Four members of the Council including the Chairman were invited by the Minister of Jobs, Enterprise and Innovation to join the Steering Group and two of these members also chaired two of the Thematic Working Groups established within the exercise. The full Council provided views and inputs to the formulation of the exercise's recommendations, including previously published Council recommendations as appropriate, through consideration at Council plenary meetings of the exercise's outputs.

<sup>12</sup> [http://ec.europa.eu/research/horizon2020/index\\_en.cfm?pg=h2020-documents](http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-documents)



# Competitiveness

## Sustaining and improving Ireland's competitiveness

Competitiveness is central to restoring Ireland's economic performance. Forfás identifies key issues facing Ireland and advises Government on policy options including providing research and analysis on Ireland's competitiveness.

We monitor tax developments and their impact on the competitiveness of enterprise in Ireland. Working with relevant stakeholders, we seek to develop initiatives which would contribute to competitiveness and create opportunities for growth.

In 2011, Forfás provided advice on key cost competitiveness issues including labour, imports, energy and infrastructure. It is critical that Ireland acts now to put in place structural changes needed to ensure that costs do not rise again and erode competitiveness.

We identify infrastructural challenges facing enterprise in Ireland and benchmark Ireland's performance against leading economies in a number of areas including energy, telecommunications and waste management policy.

We monitor and advise on the availability and cost of finance to firms in Ireland and advise on initiatives to improve the funding environment.

We support the National Competitiveness Council by monitoring Ireland's competitiveness, developing policy recommendations to address issues arising, and undertaking specific pieces of research to investigate key competitiveness issues in greater depth on the Council's behalf.



## Review of the Funding Environment

Forfás provided advice to the Department of Jobs, Enterprise and Innovation (DJEI) and other government departments on the issue of enterprise access to credit.

Access to funding continues to be a major concern to enterprise. International economic research indicates that a lack of credit growth is a significant inhibitor to economic recovery. A range of national initiatives have been developed to support the flow of credit to enterprises. In addition to initiatives to recapitalise and restructure the banking sector, initiatives have been developed to build better business banking relationships (e.g. the 'Code of Conduct for Business Lending to SMEs and the establishment of the Credit Review Office), train bank staff and to increase lending (e.g. lending targets for the two recapitalised banks).

The Forfás review of the funding environment considered the risks of a 'creditless recovery' and its potential consequences for economic recovery. It assessed the importance of various types of funding for differing enterprise types, and where data allowed, how these funding channels were performing. It outlined the policy actions taken to date and potential actions that could be taken to enhance the funding environment for enterprise - particularly for internationally trading businesses.

### Key Findings

- There was a decrease in the total amount of credit advanced to Irish private-sector enterprises in 2011 - credit advanced to SMEs fell at a sharper rate.
- There was also a decrease in the demand for credit. The SME lending survey conducted in October 2011 by Mazars on behalf of the government shows 36 per cent of SMEs are applying for credit. 72 per cent of SMEs surveyed did not expect to seek bank finance in the next 6 months. In some cases, the lack of credit growth also results from an over-indebted private sector.
- There has been an increase in short term loans, while the volume of medium and long-term loans has continued to fall. This may reflect an enterprise need for working capital in the short term and a lack of investment opportunities (i.e. survival mode) and/or a lack of willingness of the banks to invest for the long term.
- The cost of finance also continues to be an issue for Irish enterprises.
- Bank finance, while important, is just once source of finance. Equity finance is an important source of finance, in particular for high growth innovative sectors.

The report highlights that we need to:

- Ensure that the efficacy of measures (e.g. lending targets, credit guarantee scheme, etc.) put in place to improve credit flows can be assessed and further action taken if required. While data on the supply of credit has improved significantly, access to more granular data would be beneficial. In particular, more detail on the level of additional lending rather than restructured lending will give a more informed picture of access to credit.

- While there has rightly been a strong focus on the banking/credit sector to date, a stronger focus is now required to encourage private sector investment in productive investment. Encouraging equity investment (eg business angels and private investors, venture capital, venture debt and government equity, and private equity) also represents a mechanism to help over-indebted but growth-oriented viable businesses.

Actions on these issues are clearly reflected in the *Action Plan for Jobs 2012*.

#### [Irish Enterprise Funding Environment](#)

### Partial Loan Guarantee Scheme

The Programme for Government committed to introducing a “temporary, partial credit guarantee scheme that will provide a level of insurance to banks against losses on qualifying loans to job-creating firms to get banks lending again to industry and entrepreneurs”.

Under the Scheme, the State will partially guarantee loans by traditional lenders to viable businesses that are at the margins of commercial lending decisions and have difficulties accessing credit for either of two reasons:

- Insufficient collateral; and
- The lender does not have the skills or experience to carry out a proper assessment of the proposition, due to a lack of knowledge of new sectors, markets or technologies.

By supporting viable businesses that would not otherwise get access to finance, the scheme will support enterprise development and job creation. The scheme will be demand led, and the total amount of funding guaranteed will be monitored and will be reviewed depending on demand.

Forfás, Enterprise Ireland and others have worked closely with DJEI initially to assess the merits of such a scheme and more recently in terms of designing a scheme to meet Irish needs.

### Pre-Budget Submission for an Enterprise led Recovery

Forfás works closely with the Department of Jobs, Enterprise and Innovation on the development of tax measures that support enterprise development and job creation. In addition to providing regular advice on a wide range of tax issues, Forfás and the development agencies, supported by Forfás research, prepare an annual pre-Budget submission.

The *Joint Agency Pre-Budget Submission 2012* provided advice on the potential implications of a range of proposed tax changes on enterprise. The focus of the recommendations was to broaden the tax base, establishing a stable stream of revenue to the State while minimising the negative impacts on economic growth.

Forfás set out a number of principles to guide the approach to Budget 2012 including:

- Ensuring that proposals to increase taxation should follow the hierarchy of taxes least harmful to economic growth, cognisant of the need to achieve savings of €3.6 billion of which €1.5 billion was due through revenue raising measures.
- Providing certainty, predictability and stability to enterprise in order for them to be able to plan and grow.

Recommendations put forward by Forfás were focused on maintaining measures which are central to the enterprise sector, most notably the corporation tax regime and the labour tax wedge. In addition, a number of areas were identified that require further development so that Ireland can continue to grow its indigenous sector and compete internationally for investment projects, particularly in the area of research and development. Forfás also recommended that a range of design considerations in implementing carbon tax increases should be considered to minimise negative competitiveness impacts to business.

Budget 2012 was published in December 2011. Forfás welcomes the commitment to the 12.5 per cent corporate tax rate as well as the commitment to not increase the labour tax wedge. The proposed revamp of the Special Assignment Relief Programme (SARP), changes to the R&D tax credit which support smaller firms, as well as the introduction of a new Foreign Earnings Deduction (FED) are also welcome.

## Review of Competitiveness of Imports to Ireland

One of the key actions in the Government's *Strategy on Trade, Tourism and Investment* is to ensure an open and competitive environment for enterprise. As part of the preparation for the trade strategy, Forfás carried out a study which provided a statistical overview of Ireland's imports. The study highlighted some of the issues faced by Irish importers and enterprises that use imported materials.

This study benchmarked Ireland's import performance against that of other countries, providing an overview of the main actors in the import sector, and reviewed Ireland's imports by broad economic category, in order to assist in identifying any necessary policy interventions.

The project:

- Assessed the degree to which competition exists in importing processes.
- Identified the main import sectors/categories where the absence of competition may be affecting input prices for Irish enterprises and also quality, technology and choice on the Irish market; and
- Assessed the impact of import processes on consumer choice, competition, domestic productivity and source diversification, and the potential for improvement.

## Labour Costs

Forfás completed and published a review of labour cost competitiveness in late 2010. In 2011, Forfás continued to work with the Department of Jobs, Enterprise, and Innovation, as reforms of the sectoral wage agreements (as agreed with the Troika) were progressed. The purpose of the reforms is to make the JLC/REA systems more responsive to changing economic circumstances and labour market conditions, to simplify the systems and to reinstate a robust system of protection for workers in these sectors in the aftermath of a high court ruling on the validity of the old system.

### [Review of Labour Cost Competitiveness](#)

## Infrastructure Priorities for Enterprise

During 2011, the Department of Public Expenditure and Reform (DPER) undertook a comprehensive review of capital expenditure for the period 2012-2016. DPER invited Forfás to make a submission to this process. Building on previous Forfás infrastructure policy work and working closely with Enterprise Ireland and IDA Ireland, Forfás identified the key infrastructure priorities for enterprise to support sustainable export growth both nationally and regionally:

- **Communications:** From an enterprise development perspective, the timely delivery of advanced broadband services in key urban centres is the top infrastructure priority. The widespread availability of advanced broadband infrastructure and services is essential to realising future growth potential in existing and emerging sectors.
- **Water:** Although Ireland has made substantial investment in water and waste water infrastructure in recent years, further investment is required to address expected water and waste water capacity deficits in a number of key urban centres (Dublin, Galway, Athlone, Letterkenny, Mallow and Wexford).
- **Transport:** There are a number of bottlenecks around the country that if addressed will allow the full benefits of the significant investment in road and other infrastructures already made to be fully captured. These include the completion of the Cork and Galway ring roads and two sections of the Atlantic Corridor (Gort-Tuam and Croom-Mallow) which will improve mobility of people and goods in and between Ireland's main regional cities. Improving public transport in the main cities is critical to enhance mobility for all transport users.

The capital review, published in November 2011, noted that Ireland is now effectively at the end of a major phase of Exchequer funded capital investment<sup>13</sup>. The profile of capital spending will see an increasing share of revenues allocated to schools, healthcare and enterprise. As infrastructure spend will fall considerably, further work is required to ensure that agencies key priorities are progressed. While the focus of the capital review was primarily on immediate infrastructure investment priorities, given the time lag in delivering infrastructure priorities, Forfás also highlighted longer term infrastructure priorities to support future enterprise growth and job creation.

<sup>13</sup> The budget for 2012 has been cut by €755 million to €3.9 billion, it will fall to €3.3 billion in 2013 and €3.2 billion per annum between 2014 and 2016. For more details see: <http://per.gov.ie/wp-content/uploads/Infrastructure-and-Capital-Investment-2012-20161.pdf>

There is also significant scope for Government to improve infrastructure capacity and services without the need for Exchequer investment by addressing policy and regulatory barriers - an area that is to receive increased policy attention in 2012.

[Overview of the Main Infrastructure Issues for Enterprise](#)

## Delivering Advanced Broadband Services

Delivering advanced broadband speed is the top infrastructure investment priority for enterprise<sup>14</sup>. As highlighted in Forfás' report, *Ireland's Advanced Broadband Performance and Policy Priorities*, the availability of advanced broadband services offers significant development opportunities to Ireland to capture new growth for entrepreneurship and jobs in existing and emerging sectors (e.g. digital media, cloud computing, education) to achieve productivity growth, to improve competitiveness across all sectors and to support regional development. While the advanced broadband needs of ICT-intensive enterprises are generally well met in the large urban centres, businesses, particularly SMEs outside the main urban centres, have significantly less choice and less access to good quality services.

Forfás is concerned that Ireland is lagging competitor countries in the rollout and take-up of advanced broadband services. Given the weak telecommunications investment climate in Ireland, dispersed population patterns and the recession, there is a strong risk if appropriate action is not taken quickly that Ireland will fall even further behind as other countries move decisively ahead to deploy advanced telecoms networks. It is critical that we act now. The policy actions taken and investment made to date are necessary but are not sufficient to ensure the widespread availability of world class advanced broadband services within a timescale that will allow Ireland to catch up with competitor countries.

The best solution for delivering advanced broadband services is that the market invests but in the event the market does not deliver, the State will need to intervene. To ensure the timely delivery of advanced broadband services in Ireland, the State needs to:

- Develop an implementation plan which would include mapping existing telecommunications networks and concrete investment plans and then identifying the deficits that exist nationwide in terms of the availability of advanced broadband services.
- Having identified the deficits, design a mechanism (e.g. competition/procurement process) to determine the level of market interest in addressing the identified deficits through a collaborative approach between the industry players and the State.
- Make a firm commitment to provide or source the funds required to achieve the goals set out in the Programme for Government, and set objectives and targets to ensure the timely rollout of advanced broadband services. The level of funding required will depend on the extent of the advanced broadband deficits identified by the mapping exercise, the degree to which the market players can invest and how the deployment of advanced broadband infrastructure is phased.

<sup>14</sup> Forfás defines advanced broadband services as services offering download speeds of 100 Mbps or more, with significantly higher upload capability (including the widespread availability of symmetric services for enterprise) and low latency (speed of response of the system to the user) have speeds of at least 100 Mbps, are symmetrical, and have low latency.

- If the competition/procurement process is not successful in leveraging investment from the market players to support the State's broadband objectives and targets, progress with a State asset collaboration approach using the existing state telecommunications infrastructure. In this context, Forfás has examined in detail how such a State asset collaboration could deliver advanced broadband services to all towns with a population above 1,500.

Forfás participated in the Minister of Communications' Next Generation Broadband Taskforce as an observer, and will continue to advise DJEI and work closely with that Department in terms of supporting the rollout of advanced services.

[Ireland's Advanced Broadband Performance and Policy Priorities](#)

## Energy Competitiveness Issues and Priorities for Enterprise

Energy competitiveness remains an important issue for enterprise development and jobs. Energy is an essential input to every business in Ireland and we need to take action now to ensure that we have a reliable, competitively priced and sustainable supply of energy to support all Irish businesses. We are at an important juncture in Irish energy policy. The International Energy Agency (IEA) is carrying out an in-depth review of Ireland's energy policy, which is due to be completed mid-2012<sup>15</sup>. The Department of Communications, Energy and Natural Resources (DCENR) is to develop a new energy policy framework during 2012.

In December 2011, Forfás published its report, Review of Energy Competitiveness Issues and Priorities for Enterprise<sup>16</sup>. There have been a number of important improvements in Ireland's energy competitiveness performance in recent years, such as the establishment of the all island electricity market, significant spare electricity generation capacity, progress on renewables capacity and increases in energy efficiency. However, further action is required. Ireland faces significant energy challenges. We need to keep prices as low as possible while also ensuring that we keep the lights on and that we do our share to protect the environment for future generations.

We recognise the difficulties for policymakers in balancing these different objectives. However, the forthcoming reviews of Irish energy policy by the IEA and DCENR provide a timely opportunity to review our energy objectives and ensure that we are making the right energy policy choices today to support long term economic growth and international competitiveness.

The main energy policy priorities for enterprise and competitiveness include:

- Continuing to drive for greater efficiencies in the regulated parts of the gas and electricity markets;
- Phasing out subsidies for peat generated electricity and modifying future renewables subsidies to ensure that they do not increase energy prices unnecessarily;

<sup>15</sup> The IEA review will also include an assessment of the efficiency of the Irish electricity and gas markets as required under the EU-IMF Programme for Financial Support for Ireland.

<sup>16</sup> Previous Forfás energy work has focussed largely on electricity due to significant pressures on the cost competitiveness and the security of supply of electricity for enterprise. This time the scope of the work has been expanded to include an assessment of the key transport and heat energy issues for enterprise.



- Reviewing investment in the grid, which is paid for by energy users, to take account of reduced demand and planning delays;
- Enhancing security of supply by diversifying the fuel mix for heat and transport, increasing interconnection to UK and mainland Europe, and increasing our low levels of gas and oil storage capacity;
- Addressing planning delays that are adding significantly to consumer costs. For example, delays in the North-South tie-line are costing energy consumers approximately €20-€30 million per annum<sup>17</sup>; and
- Continuing to focus on energy efficiency and delivering new renewable energy capacity by addressing planning and regulatory delays.

There are significant export and employment opportunities presented by Ireland's favourable wind and wave energy resources. We need to put in place appropriate supports to promote and develop those enterprise opportunities. This must be done in a way that supports the development of the renewable energy sector without adversely affecting the competitiveness of the wider enterprise base and Ireland's attractiveness as a location to do business. Actions to support the development of the renewable energy sector and meet our targets should focus on reforming the regulatory and planning framework.

During 2011, Forfás continued to work closely with IDA Ireland, Enterprise Ireland and the DJEI to ensure that Irish energy policy supports enterprise and competitiveness. We were invited to meet the IEA team responsible for the Irish review to discuss the energy issues for enterprise when they carried out their consultations with key stakeholders in September 2011. We also made a number of submissions with the development agencies to key energy consultations to ensure that enterprise and competitiveness objectives and priorities are reflected in energy policy and regulatory decisions.

[Review of Energy Competitiveness and Priorities for Enterprise](#)

## Intelligent Infrastructure

The Forfás report, *Intelligent Infrastructure: Delivering the Competitiveness Benefits and Enterprise Opportunities*, explores the potential for the deployment of intelligent infrastructure in Ireland and focuses specifically on the core infrastructures of energy, water, transport and waste.

Intelligent infrastructure is the application of technology to deliver a more effective and efficient infrastructure service. It uses a layer of technologies, which can be embedded in the design of new infrastructure or applied to existing infrastructure. For example, some local authorities in Ireland have placed sensors in their water distribution pipes to enable speedy identification of leakages.

While Ireland has made substantial investments in infrastructure in recent years, further investment is required to ensure that our infrastructure can support economic recovery and future enterprise growth. With the significant cuts in capital budgets, we need to use technology better to improve infrastructure. Intelligent infrastructure optimises the

<sup>17</sup> Speech by the Minister for Communications, Energy and Natural Resources at the Energy Ireland conference, June 2011.

operation of infrastructural services and reduces infrastructure costs. It improves the productivity of infrastructure and by creating a better business environment can enhance national competitiveness. In addition, developments in intelligent infrastructure present opportunities for new products and services for the Irish enterprise sector.

Internationally, infrastructure solutions usually emerge in response to a particular issue or deficit faced by a country or region. For example, faced with crippling congestion, Singapore has become a world leader in intelligent transport systems. Smart technologies have already been applied to a range of infrastructures in Ireland. In the area of electricity, for example, the development of a smart electricity grid is at a relatively advanced stage, and a large pilot study on smart electricity metering has been concluded with the results presenting a very positive outcome from the cost benefits analysis. A number of intelligent transport system (ITS) initiatives have also been established in Ireland such as barrier-free tolling on the M50 and the use of sensors to monitor traffic and sequence traffic lights accordingly in some urban areas.

The report sets out policy actions to exploit the competitiveness benefits offered by smarter use of technology in infrastructure deployment. It also looks at what needs to be done to realise the intelligent infrastructure opportunities for Irish based enterprises.

[Intelligent Infrastructure: Delivering the Competitiveness Benefits and Enterprise Opportunities](#)

## Reducing Infrastructure Costs

In 2011, Forfás supported the Irish Academy of Engineers in undertaking a report on the costs of infrastructure delivery in Ireland. With likely future infrastructure spend at just 40 per cent of that in the peak of the boom, it is essential that we get more from our investments. The report focused on achieving more efficient infrastructure deployment. It highlights a number of practical policy actions which if implemented could significantly reduce the cost of delivering these critical projects. These include improving the planning process and legislation, reforming procurement procedures, strengthening institutional arrangements for infrastructure projects, development of appropriate skill sets, private participation in funding and financing and identifying synergies in infrastructure deployment between Ireland and Northern Ireland.

## Review of the Economic Impact of the Retail Cap

One of the conditions of the EU-IMF Programme for Financial Support for Ireland is that the Government will conduct a study on the economic impact of eliminating the cap on the size of retail premises with a view to enhancing competition and lowering prices for consumers and discuss implementation of its policy implications with the European Commission. Forfás was requested to conduct this study.

Forfás worked closely with a steering group comprising officials from DJEI and the Department of the Environment, Community and Local Government (DECLG). The report was submitted to the two departments in April to inform the wider review of the retail planning guidelines being carried out by DECLG. In November 2011, DECLG published the Forfás report along with the draft revised retail planning guidelines.

The relationship between the retail cap, prices and competition is complex. Theoretically, the elimination of the retail cap could create greater cost savings for retailers, through economies of scale, which could, if strong competition, existed be passed on to customers. However, there is a risk that retailers could extend their scale advantages to create local monopolies. This is a particular issue in the grocery market where most consumers are generally unwilling to travel long distances to do their weekly shop.

Forfás concluded that a sweeping removal of the caps would produce mixed results in terms of enhancing competition and reducing consumer prices. Mirroring the report's key finding, the draft revised retail planning guidelines will differentiate between cities and towns based on size. A modest increase in the retail cap is proposed in key cities.

The report also noted that the cap is not the only element of the planning framework that has an impact on competition and consumer prices, and that this other factors should also be addressed. It is notable that the average size of grocery stores in Ireland is significantly below the current caps.

Following a public consultation in late 2011 on the draft revised guidelines, DECLG published the final revised planning guidelines on the 1 May. The new guidelines provide for more modest increases in the grocery cap than those recommended by Forfás. The grocery cap has been increased from 3,500 square metres to 4,000 square metres in Dublin, from 3,000 square metres to 3,500 square metres in Cork, Galway, Limerick/Shannon and Waterford while everywhere else the cap remains at 3,000 square metres. The other main change is to the retail warehouse cap (large single-level stores selling bulky household goods, e.g. furniture, electrical goods), which was set at 6,000 square metres in all areas except the NSS gateways - the exception to the cap now only applies to the five main cities - Dublin, Cork, Galway, Limerick and Waterford.

[Review of the Economic Impact of the Retail Cap](#)

## National Competitiveness Council

The work of the National Competitiveness Council (NCC) is underpinned by research and analysis undertaken by Forfás. The NCC was established by Government in 1997. Members of the Council are drawn from business, trade unions, government departments and agencies, and academia. It reports to the Taoiseach on key competitiveness issues facing the Irish economy and offers recommendations on policy actions required to enhance Ireland's competitive position.

The Council published a number of reports on competitiveness in 2011:

- [Statement on Competitiveness Priorities](#)
- [Costs of Doing Business in Ireland 2011](#)
- [Ireland's Competitiveness Scorecard 2011](#)
- [Ireland's Competitiveness Challenge 2011](#)

### Statement on Competitiveness Priorities

Starting from the premise that enhancements in Ireland's international competitiveness are a necessary part of our recovery strategy, this paper highlighted the main recommendations that the NCC believed needed priority attention from the new Government. These concentrate on four key areas:

- Enterprise;
- Competition and Productivity;
- Fiscal Policy; and
- Improving Ireland's Skills, Research and Infrastructure Base.

Specifically, the focus in the Statement is on embedding structural reform that will deliver long-lasting, durable competitiveness gains, as opposed to temporary, cyclical improvements in competitiveness.

### Costs of Doing Business in Ireland 2011

*Costs of Doing Business in Ireland 2011* uses the most up to date internationally comparative cost data to examine a wide range of enterprise relevant costs across four key dimensions: labour, property, utilities, and business and professional services. The price of a number of key business input costs in Ireland are compared with prices charged in other jurisdictions (where available). In addition, changes in enterprise costs over time are also examined to understand how costs are evolving.

The 2011 report includes additional analysis compared with previous editions. The drivers of business costs are considered to determine what factors are fuelling these costs and to isolate the policy actions that can be undertaken to enable prices to adjust efficiently to market forces. The ultimate goal of this paper is to identify a set of practical actions which can deliver structural reform, ensuring that markets operate in a manner which supports Ireland's international cost competitiveness.

*Costs of Doing Business in Ireland 2011* found that Ireland's international cost competitiveness improved further in 2010, continuing a trend from previous years. Notwithstanding the cost competitiveness gains made since 2008, however, further progress is required in order to ensure Irish enterprises can compete internationally. Despite price reductions, a range of business inputs in Ireland remain relatively expensive compared to other jurisdictions, notably in relation to property, calls from landlines, and legal fees. A large number of these inputs arise in the locally traded sector.

The report also emphasises that in order to significantly enhance competitiveness, it is not sufficient to simply reduce costs - the pace of cost reductions must outstrip declines in our key competitors in order to close the gap. Other key findings include:

- Where costs have decreased, these have largely been as a result of cyclical rather than structural factors. There is a danger that if structural barriers preventing costs from adjusting are not removed, once an economic recovery kicks in, recent competitiveness gains will be rapidly eroded. For instance, while the cost of industrial electricity for large energy users in Ireland decreased significantly (-27%) in 2010, these welcome price falls were largely the result of cyclical factors - the steep decline in global fuel prices (gas and coal) and temporary national subsidies which are to be phased out by

the end of 2012. As such, lower prices are unlikely to be sustainable into the medium term without more fundamental policy reform.

- Changes in cost and price competitiveness depend not only on cost and price trends but also on exchange rate movements. Exchange rates are volatile and not under our control. In order to improve cost competitiveness we should concentrate on cost factors that can be influenced domestically.

Building on the benchmarking data and the analysis of cost drivers, the Council set out a series of specific recommendations designed to reduce costs. Following the submission of the report to the Minister for Jobs, Enterprise and Innovation, and its publication, Minister Bruton wrote to the Ministers responsible for implementing the recommendations in the *Costs of Doing Business* report, asking them to identify the steps that are being taken, or need to be taken, to implement the recommendations relevant to their departments and/or its agencies. Significant progress has already been recorded or is underway across a range of areas highlighted by the Council, including legal services reform and labour market reform.



### The National Competitiveness Council

Pictured at an NCC meeting are (l-r) Aidan O'Driscoll, Assistant Secretary, Dept of Agriculture, Fisheries & Food (foreground), Martin D. Shanahan, Chief Executive, Forfás, Sean Murphy, Deputy Chief Executive, Chambers Ireland, Brendan Butler Director of Strategy, Trade, EU and International Affairs, IBEC and Michael Delaney, Vice President for Development, Cork Institute of Technology

### Ireland's Competitiveness Scorecard 2011

This year's NCC benchmarking publication has been renamed *Ireland's Competitiveness Scorecard* and was published in September 2011. The Scorecard reflects the Council's belief that Ireland should aim to be world class in everything that we do. Benchmarking our competitiveness performance provides a statistical basis for observers to identify Ireland's competitiveness strengths and weakness and provides the Council with the analytical underpinning to formulate policy recommendations designed to maximise Ireland's international competitiveness.

The Scorecard compares Ireland's performance across a range of 127 indicators against 17 of our key competitors. Looking at the results from Ireland's Competitiveness Scorecard, Ireland's performance in 2011 was mixed. The enterprise sector performed relatively well - Ireland's export sector is a significant competitiveness strength and was the sole source of economic growth in 2010. Growth in exports was facilitated and supported by reductions in our cost base, as well as improvements in productivity.

On the downside, however, Scorecard 2011 emphasises that many areas of our economy are underperforming, leaving substantial room for improvement. High public debt, rising unemployment and shortages of credit were all highlighted as causes for concern. A number of other worrying trends emerged in the 2011 report, for example, the declining academic performance of our 15 year olds in the Programme for International Student Assessment. Building on this analysis, the Council developed a series of policy recommendations, which were published in the Competitiveness Challenge report.

### Ireland's Competitiveness Challenge 2011

*Ireland's Competitive Challenge 2011* was published in January 2012 and addresses what the Council sees as the most important policy changes needed to support the enterprise sector and enhance international competitiveness. The report stresses the need for swift action in light of ongoing international economic uncertainty and the growing risk of further downturns in some of Ireland's main markets. The actions proposed by the Council (and summarised below) focus on achieving four complementary objectives - reducing our cost base, enhancing productivity, restoring macroeconomic and fiscal stability and ensuring delivery of world class performance standards.

**Reducing the Costs of Doing Business:** We need a consistent focus across Government on driving down the cost structure of enterprise. Recommendations under this heading relate to the provision of greater information relating to the operation of NAMA; reforms to the manner in which commercial rates are calculated and collected; actions such as the phasing out of subsidies for peat generated electricity and the revision of the REFIT scheme to reduce energy costs.

**Boosting Productivity:** The Council urges the continuation of efforts to boost our productivity. By concentrating on actions to improve educational standards, up-skill and re-skill the labour force, facilitate labour market adjustment, prioritise our expenditure on R&D and enhance our infrastructure, we can take actions now to deliver lasting improvements in our living standards.

**Restoring a Sound Macroeconomic Environment:** Stable government finances and a functioning financial system are central to supporting competitiveness. In particular, Ireland needs to broaden the tax base through the introduction of a broadly based and equitable residential property tax, and through greater use of user charges, whilst maintaining a competitive tax regime for labour. The Challenge report also emphasises the necessity of introducing measures that improve cash flow for business and improve access to funding for enterprise.

**Delivery of World Class Performance Standards:** Since 2008, the public sector reform agenda has largely focused on reducing the cost of running the public sector by reducing employment numbers. There is a need, however, to move beyond relying almost exclusively on cuts as a vehicle to drive reform. We must embed structural reform that will deliver sustainable productivity improvements, which cannot be quickly eroded once the economy returns to growth.

The delivery of world class performance standards also applies to the private sector. Restoring public trust at home and rebuilding our reputation internationally are two of the major challenges facing Ireland. The current crisis revealed severe shortcomings in corporate governance, particularly in relation to the financial services sector, which is of systematic



importance to the wellbeing of an economy. The Challenge notes that reform of corporate governance is an essential aspect of enhancing national competitiveness.

Many of the key messages from earlier Competitiveness Challenge reports have been reflected in the EU/IMF Programme for Ireland and have been acted upon by domestic policy makers. Competitiveness is improving and actions are being taken on recommendations previously made by the Council, such as the Government's commitment to the introduction of a property tax and domestic water charges, the establishment of the fiscal council, as well as some improvements in the area of competition policy.

# People

## Building our highly skilled, talented and flexible labour force

Continued strategic investment in the development of our people is an essential component in Ireland's economic success. Providing education, training and upskilling that meets the needs of current and future enterprises must be at the heart of our enterprise policy. Forfás advises Government on education, skills and labour market policy as they relate to enterprise development. Forfás also advises on policies which support labour market flexibility.

We highlight skills requirements in key strategic sectors and other skills crucial to Ireland's competitiveness such as mathematical proficiency, science, technology and engineering.

We project future skills requirements within enterprise at national and sectoral levels and make recommendations on how best to address the identified needs.

We monitor progress towards the National Skills Strategy targets and provide analysis on the alignment of education and training with the skills needs of enterprise including priority training requirements and the most cost effective ways of responding to them.

We advise Government on labour market trends, upskilling, activation and work placement policies including advising on any skills requirements that cannot be met internally in Ireland at any given time and must therefore be met through inward migration.

We benchmark developments in content and delivery systems that support excellence in training quality in other countries and advise on how such developments can be incorporated into training provision in Ireland.

We provide research and analysis to the Expert Group on Future Skills Needs and develop policy recommendations on the Group's behalf.

## Springboard Higher Education Labour Market Activation Call

In January 2011, the Higher Education Authority, on behalf of the Department of Education and Skills, issued a Call for Proposals to public and private higher education providers in Ireland for Springboard. Part of the Government's 2011 Jobs Initiative, Springboard is a labour market activation measure which aims to reach a particular group of people who are unemployed, but who have a previous history of employment. Its primary objective is to help unemployed people to remain as close as possible to the labour market by accessing part time flexible higher education and training opportunities to upskill or reskill in areas where sustainable employment opportunities may arise as the economy recovers.

Forfás identified these opportunities in a document, *Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise*, which accompanied the competitive call. It identified areas of specific skills demand in enterprises around which programmes could be designed. This ensured that provision was highly relevant to enterprise skills needs and therefore should have optimal labour market outcomes for participants.

€19.7m was made available for the 5,883 places on State funded courses commencing in 2011. The places awarded under Springboard are distributed in the following sectors: 31 per cent ICT, 21 per cent cross sectoral/business, 16 per cent medical devices, 14 per cent green economy, 8 per cent biopharmachem, 7 per cent food and beverages, 3 per cent international financial services.

[Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise](#)

## Guidelines for the Alignment of Further Education Programmes with Skills Needs of Enterprise

Forfás undertook research requested by the Department of Education and Skills (DES) in the context of improving how the VEC sector can better respond to current and future skills needs of employers. The aim is to provide strategic guidelines that the VEC sector can adopt that will ensure better alignment between provision and labour market requirements.

In seeking to address this, the VECs can initiate or develop the following:

- Work more closely with local enterprises and existing public employment services in the development of courses to meet needs at a local level;
- Enhance, with enterprises, workplace learning (work placements, internships) within programme provision;
- Monitor, along with relevant local stakeholders, the provision of regulation-required awards;
- Improve data collection, in particular in relation to progression outcomes - progression to employment/self-employment and further education/training;
- Building on the good basis of core and generic skills provision, develop that provision as part of individual progression or career development plans; and
- Build progression from non-accredited provision to accredited provision, and expand the offering of accredited options within basic education (primarily, adult literacy and community education).

The VECs need to ensure that information on current and future skills and labour market needs is disseminated effectively throughout the VEC sector. They also need to promote increased flexibility to respond to changing skills and labour market needs and form enhanced interactions between enterprise and the VEC sector, and focus on the employability of VEC learners. The Forfás research has since been sent by DES to the VECs and the Solas Implementation Group.

## Joint Submission (EGFSN/Forfás/NCC) to NCCA Consultation on the Draft Leaving Certificate Enterprise Short Course

In October 2011, a joint submission from Forfás, the National Competitiveness Council (NCC) and the Expert Group on Future Skills Needs (EGFSN) was made to the National Council for Curriculum and Assessment's (NCCA) consultation on the draft Enterprise Leaving Certificate Short Course.

The submission welcomed the draft course as proposed, particularly the skills emphasised within the course such as self-directed learning, critical and creative thinking, information processing, teamwork and project management which are highly relevant to the modern economy and workplace.

The submission made some suggestions as to how the course could be further enhanced, based on the research findings of Forfás, the EGFSN and the NCC, particularly around:

- Placing greater emphasis on internationalisation and the need to think globally;
- The significance of management development, sales and marketing skills;
- The importance of foreign language skills and understanding of world cultures; and
- The need for an increased emphasis on developing the concepts of innovation within the course.



### Forfás at the NI Success through Skills - Transforming Futures Conference

Pictured are (l-r) Martin D. Shanahan, Chief Executive, Forfás, Charlie Mayfield, Chairman of the UK Commission on Employment and Skills and Chairman of the John Lewis Partnership and Employment and Learning Minister, Dr Stephen Farry



## Submission on the National Strategy to Improve Literacy and Numeracy among Children & Young People 2011-2020

In February 2011, a joint submission from Forfás and the EGFSN was made to the consultation process for the *National Strategy to Improve Literacy and Numeracy among Children and Young People 2011-2020*.

The main Forfás/EGFSN priorities highlighted were:

- Ensure that the Strategy highlights the clear link between literacy and numeracy skills and their importance in the economy and the workplace;
- Integrate literacy and numeracy across disciplines;
- Improve Continuing Professional Development (CPD) in literacy and numeracy for teachers and to raise CPD participation; and
- More frequent assessment and use of resulting data to improve practice.

These priorities are strongly reflected in the final Strategy which was launched by the Minister for Education and Skills on 8 July 2011. Specifically, the Strategy strongly links literacy and numeracy to employability and economic prosperity.

## Advice on Economic Migration Policy

During 2011, Forfás continued to provide advice to the Department of Jobs, Enterprise and Innovation on economic migration policy.

Advice in 2011 included identification of changes in labour market trends and skills shortages, arising from analysis contained in the National Skills Bulletin 2011. DJEI utilises this information to determine occupations eligible for Green Cards and Work Permits.

In addition to labour market updates, Forfás continued to provide input into the Department on a range of economic migration issues as they arose. This included advice on existing labour market arrangements between Ireland and EU member states and our capacity to meet labour and skills needs out to January 2014. In July 2011, Forfás produced a paper which advised Government migration policy on labour market access for Bulgarian and Romanian nationals in the period from 2012 to 2014.

## EU 2020: Setting Ireland's Employment Rate Target

In March 2010, the EU Commission proposed to develop a new strategy for the next decade, the *Europe 2020 Strategy*, to enable the EU to emerge stronger from the crisis, through smart, sustainable and inclusive growth, accompanied by high levels of employment, productivity and social cohesion. Five headline targets constitute shared objectives which guide the action of the member states. The target for the EU in 2020 for employment is that 75 per cent of 20-64 year-olds are to be employed and that member states implement national reform programmes that work towards this and the other targets.

Forfás provided advice that Ireland should set an employment rate range of 69-71 per cent with the possibility to revisit the range in 2014. This was deemed the most appropriate approach. Policies to promote employment growth and enhance labour market participation should focus on the following areas:

- Weak labour demand and incentives/stimuli to increase employment within enterprise;
- Long term and structural elements of unemployment;
- Persons with low levels of educational attainment and younger higher education graduates; and
- Over the longer term, groups with historically relative low participation/employment rates - females, persons with a disability, older workers, lone parents and welfare dependents.

## Expert Group on Future Skills Needs

The Expert Group on Future Skills Needs (EGFSN) advises the Irish Government on current and future skills needs of the economy and on other labour market issues that impact on Ireland's enterprise and employment growth. It has a central role in ensuring that labour market needs for skilled workers are anticipated and met. EGFSN members are composed of representatives of business, employees, education, government departments and state agencies.

Forfás, in conjunction with the Skills and Labour Market Research Unit in FÁS, provides the EGFSN with research and analytical support. The Group's work programme is managed by the Head of Secretariat based in Forfás.

The EGFSN provides advice to Government on skills issues impacting enterprise through advice on:

- Skills requirements at national and sectoral level;
- Priority training requirements;
- Skills requirements that must be met through inward migration;
- Adapting programme content and delivery; and
- Influencing and monitoring implementation.

During 2011, the EGFSN continued to engage with stakeholders to ensure that key labour market information was disseminated to all relevant parties. The Group provided presentations on a wide range of labour market issues at conferences and fora throughout the year. In 2011 the Group focused on work in the following areas:

- [Addressing ICT skills Recruitment Difficulties of Foreign Owned and Indigenous Companies](#)
- [Developing Recognition of Prior Learning](#)
- Progress on implementation of EGFSN report recommendations
- Collaboration with FÁS Skills and Labour Market Research Unit



## Addressing ICT Skills Recruitment Difficulties of Foreign Owned and Indigenous Companies

A range of skills recruitment difficulties have been raised through the work of the EGFSN, specifically the immediate issue of high level ICT/ computing and engineering skills. Both FDI and indigenous companies in ICT related industries have expressed concerns that the domestic supply of graduates with high level ICT/computing and electronic engineering related skills is not sufficient to meet current levels of demand. The EGFSN undertook consultations with companies to establish information on the scale and nature of positions involved and to identify measures to help address these.

Immediate skills demand is at (i) graduate entry level; (ii) ICT professionals with 2-8 years experience; and (iii) ICT professionals with 8+ years experience. This requirement varies across companies. The difficulties in meeting this demand results from a steep decline in the domestic supply of ICT graduates over recent years. Year 2010 acceptances for Level 8 computing programmes were 20 per cent less than for year 2000, although the numbers of acceptances have increased by 29 per cent over the last three years. Total annual expansion and replacement demand in the ICT sector for NFQ Level 8+ computing and electronic engineers for the period 2012-2013 is estimated at 2,500 per annum. Companies are sourcing approximately 55 per cent of their high level ICT skills supply needs through inward migration, although with increasing difficulty, as these skills are also in high demand globally.

Findings indicate that companies are experiencing high level ICT skills recruitment difficulties, especially for computing/software talent, arising from:

- Expansion of business operations of companies over the last year (+4 per cent employment growth).
- Potential for foreign companies to win mobile investment from parent company.
- An increasing share of employment within the sector comprises staff with high-level skills.

Following on from research undertaken by Forfás for the EGFSN, the *ICT Action Plan -Meeting the High-Level Skills Needs of Enterprise in Ireland*, has been jointly prepared by the Forfás, DES, and the HEA.



### **Launch of the *ICT Action Plan: Meeting the High-Level Skills Needs of Enterprises in Ireland***

Pictured are (l-r) Ruairí Quinn, T.D., Minister for Education and Skills and Richard Bruton, T.D., Minister for Jobs, Enterprise and Innovation.

The Plan establishes an overarching target of doubling the annual output from honours degree ICT undergraduate programmes to 2,000 graduates by 2018. Some key proposed actions to increase graduate supply contained include:

- Provision of ICT conversion courses;
- Proposal for a further call under Springboard for additional ICT places at 3rd level aimed at jobseekers;
- Awareness-raising among CAO applicants regarding ICT job opportunities;
- Boosting the longer term supply pipeline by increasing the numbers and quality of students choosing to accept places on ICT related programmes and improving the retention rates of students once enrolled; and
- Improving the levels of mathematical proficiency of students entering higher education.

The *ICT Action Plan: Meeting the High-Level Skills Needs of Enterprises in Ireland* was jointly launched by Ruairí Quinn, T.D., Minister for Education and Skills and Richard Bruton, T.D., Minister for Jobs, Enterprise and Innovation on 30 January 2012.

## Developing Recognition of Prior Learning in the Context of the National Skills Strategy Upskilling Objectives

At the request of the Department of Education and Skills the EGFSN considered the role that Recognition of Prior Learning (RPL) might play in progressing the upskilling targets in the National Skills Strategy.

RPL is about giving value to the skills and competencies people have gained, whether acquired through formal or informal learning. RPL can be used by people to gain access to qualifications where they do not meet the entry criteria on the basis of formal qualifications alone, to gain exemptions from certain modules of qualifications and, in some instances, to gain full awards.

A policy paper, prepared by Forfás for the EGFSN, with significant input and material from the National Qualifications Authority of Ireland (NQAI) Executive, was published in April 2011.

The main finding of the report is that while significant experience of RPL has been developed in Ireland, a coordinated national policy approach is required. The recommendations, targeted across the 10 levels of the National Framework of Qualifications, aim to provide the basis for a more integrated and national policy for RPL in Ireland.

[Developing Recognition of Prior Learning](#)



### Expert Group on Future Skills Needs

Pictured at a meeting of the Expert Group on Future Skills Needs are (l-r) Una Halligan, Chairperson, EGFSN and Marie Bourke, Department Manager Education, Skills & Labour Market Policy, Forfás and Head of Secretariat, EGFSN

## Progress on implementation of EGFSN report recommendations

Ongoing monitoring of progress on implementation of recommendations, including a review of sectoral studies six months after completion, is undertaken by the EGFSN. A commentary on implementation is also included in the EGFSN's Annual Activity Statement which is provided to both the Minister for Education and Skills and the Minister for Jobs, Enterprise and Innovation.

### Future Skills Needs of the Wholesale and Retail Sector

The EGFSN report *Future Skills Needs of the Wholesale and Retail Sector*, published in May 2010, assessed the skills requirements of the wholesale and retail sector in Ireland over the period to 2016, and identified actions required to meet these skills needs.

As part of the EGFSN's role in monitoring progress on implementation, the Chair of the Expert Group convened a meeting of key stakeholders on 31 May 2011 to discuss progress to date on the report recommendations and how implementation could be further progressed.

There has been some progress in areas such as the development of common awards systems for retail at Levels 4, 5 and 6 on the National Framework of Qualifications, RPL activity is increasing in the sector and the Springboard Initiative provided approximately 12 programmes relevant to specialist professional occupations within the retail sector.

The main recommendation of the report, the development of a retail skills framework, has yet to be progressed. It was agreed that Retail Ireland and Retail Excellence would meet to decide how best to progress the Framework, and to discuss the appointment of a retail sector expert to develop the framework in consultation with industry and education/training providers.

## Collaboration with FÁS Skills and Labour Market Research Unit

During 2011, Forfás continued to work closely with the Skills and Labour Market Research Unit (SLMRU) in FÁS. In 2011 FÁS published the following reports on behalf of the EGFSN:

- The [National Skills Bulletin 2011](#), published in July 2011, draws on data on employment, vacancies, job announcements and immigration and other qualitative information held in the National Skills Database, to identify imbalances in the Irish labour market at occupational level.
- [Monitoring Ireland's Skills Supply - Trends in Education and Training Outputs](#) *Monitoring Ireland's Skills Supply 2011 - Trends in Education and Training Outputs*, published in July 2011, provides an indication of the supply of skills to the Irish labour market from the formal education and training system by examining outflows from the formal education system across levels 1-10 of the National Framework of Qualifications (NFQ).
- [Vacancy Overview 2010](#), published March 2011, draws on a number of data sources held in the National Skills Database to provide an overview of the demand for labour as measured by trends in advertised job vacancies.

The SLMRU also develops and maintains the National Skills Database (NSD), which collates all available information on the supply and demand of skills in Ireland. During 2011 the NSD was updated to include the latest statistics and information on employment; education and training output; immigrant labour force; notified job vacancies; labour force forecasting models; occupational employment forecasting models, and recruitment agency surveys.



# Discover Science & Engineering

Discover Science & Engineering (DSE) is Ireland's national science promotion programme.

It aims to increase interest in science, technology, engineering and mathematics (STEM) among students, teachers and members of the public. DSE brings together many science and engineering awareness activities that were previously managed by different public and private bodies.

Forfás operated the DSE programme from October 2003 to December 2011. In January 2012, DSE transferred to Science Foundation Ireland.



## Discover Science & Engineering

Discover Science & Engineering (DSE) aims to deliver a focused, strategic and quantifiable awareness campaign. DSE's overall objectives are to:

- Increase the number of students studying the physical sciences and mathematics;
- Promote a positive attitude to careers in science, technology, engineering and mathematics; and
- Foster a greater public understanding of the physical sciences, engineering and mathematics and their value to Irish society.

During 2011 the activities of DSE were in the following areas:

General Awareness

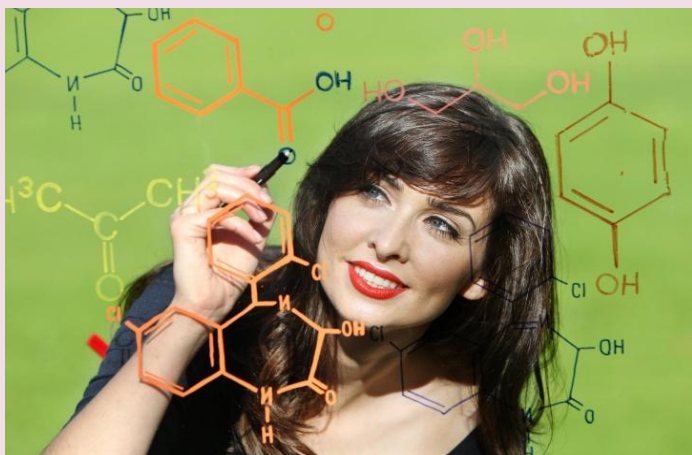
Primary Level Science

Second Level Science

### General Awareness

#### Science Week Ireland

Science Week Ireland is a key national awareness event that has been running since the mid 1990s. To highlight 2011 as the International Year of Chemistry the theme, *The Chemistry of Life* was chosen for Science Week 2011.



#### The Chemistry of Life

Pictured is Aoibhinn Ní Shúilleabháin at the launch of Science Week 2011

Approximately 500 events across the country catered for in excess of 120,000 participants in a variety of venues such as schools, colleges, universities and libraries. As part of its overall coordination role of Science Week, DSE provides road shows to venues across the country and in 2011 more than 50 shows were organised through local event organisers. The [www.scienceweek.ie](http://www.scienceweek.ie) website hosted a range of resources including an online calendar of

events, chemistry-based activities, feature articles, a photo gallery and video footage from the Science Week annual Lecture Series.

The Science Week Corporate Partners Programme continued to grow in 2011 with companies from various industrial sectors participating in science outreach activities. Indigenous and multinational companies participated, united by their interest in promoting science, engineering and technology to young people and the general public. Strategic partnerships also continued successfully with a number of regional festivals in Galway, Cork, Sligo, Limerick, Mayo and Waterford.

### St Patrick's Festival Big Day Out

Discover Science & Engineering participated in the St Patrick's Festival Big Day Out in March 2011. DSE provided content for the Science Zone which included a science show as well as a small science fair including exhibits from Dublin Zoo, the Galway Atlantaquaria, Abbott Ireland, and the Sustainable Energy Authority of Ireland (SEAI). The addition of a maths workshop aimed at young children proved to be very successful. This annual event provides DSE with an opportunity to interact with a predominantly family based audience in a non-educational setting to encourage families to take an interest in science.



### Working It Out

Pictured at the DSE Science Zone at the Big Day Out which is part of the St Patrick's Festival.

### DSE Online

Social media channels such as YouTube, Twitter and Facebook have continued to play an increasingly important role for DSE in effectively reaching its target audiences of young people in 2011. During Science Week, events were promoted on a daily basis, videos of lectures were shared, and a strong community was built by all who participated. This has successfully continued long after the end of Science Week.

In late 2011, a new campaign called Smart Futures was launched, which was carried out entirely online. This pilot, a joint initiative between industry and government, included a digital content competition; an online careers fair that took place from 23-27 January 2012 including online discussions with people from the industry; regular blog updates about the sector; career stories; and competitions.

DSE continues to promote the use of ICT for learning and communicating science among students and teachers by providing online learning resources. On the Greenwave website ([www.greenwave.ie](http://www.greenwave.ie)) teachers and students can carry out data logging activities in tracking the arrival of spring across Europe. The second level project site [www.DiscoverSensors.ie](http://www.DiscoverSensors.ie) encourages teachers to use inquiry based science teaching, learning and assessment.

### Discover Science Careers

Discover Science & Engineering's Science Ambassador Programme profiles young qualified scientists and engineers from a wide range of employment sectors in Ireland on its dedicated careers website [www.MyScienceCareer.ie](http://www.MyScienceCareer.ie). It is another useful online resource for career guidance counsellors, parents and students to help encourage them to look towards a career in STEM.

## Primary Level Science

### Discover Primary Science and Maths (DPSM)

Discover Primary Science and Maths (DPSM) is the national programme to foster interest in science, maths and engineering among primary school children (4-12 year olds). A wide range of resources has been developed to support participating schools in engaging in enquiry based, hands-on approaches to science and maths activities in the classroom. DPSM schools are also encouraged to expand the breadth of their science and maths work in a range of ways. This can include visiting a network of accredited Discover Centres that provide curriculum relevant primary science workshops, participating in Greenwave to observe and record the arrival of spring or participating in relevant Science Week events.

### Discover Centres Network

The network of Discover Science Centres including museums, national parks, aquaria and observatories continued to collaborate and work together in 2011 to deliver DPSM programmes. Overall centres reported growth in DPSM school visits from 679 in 2009/2010 to 755 in 2010/2011, representing an 11% increase.

### [www.primaryscience.ie](http://www.primaryscience.ie)

The Discover Primary Maths and Science [www.primaryscience.ie](http://www.primaryscience.ie) website provides resources to support implementation of over 90 hands on activities, using easy to source, inexpensive, everyday materials.



### primaryscience.ie

Provides resources to support over 90 hands-on science activities

The website is a popular resource with participants. 77 per cent of respondents to an evaluation survey reported visiting the website at least once a month. Over 60,000 visits and 330,000 views were recorded from September 2010 - June 2011.

### Awards of Science and Maths Excellence

The Awards of Science and Maths Excellence, which recognise those schools that excel in their levels of participation in DPSM by meeting a range of pre-determined criteria, has now been running for six years. In 2011:

- 472 schools received an award;
- Award applicants reported making 207 visits to Discover Centres;
- About 75% of award applicants had 412 visits from speakers on a range of science and maths related themes; and
- Applicants reported participation in 488 science events.

The criteria for the Awards are reviewed each year to revitalise the scheme and sustain interest among schools participating by submitting details of their Science and Maths work in a Discovery Log. In 2011 schools applying for an Award had to carry out some work relating to the theme of Science Week, which in 2010 was *Our Place in Space*. A range of hands-on activities was added to the DPSM website in a new “space” section in collaboration with the European Space Agency Resource Office (ESERO) Ireland to support schools in this approach. The change was well received and continued in 2011 when the Science Week theme was *The Chemistry of Life*.

### Teacher Education

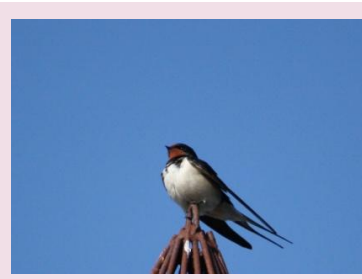
Opportunities for teachers to engage in hands-on teacher training sessions with experienced DPSM trainers form a core aspect of the support the programme provides to schools.

- DPSM trainers delivered whole school training days on request to 500 teachers in 36 schools during 2011.

- An additional 240 pre-service teachers were trained in DPSM training days in the colleges of education. The existing collaboration with Froebel College, Dublin continued and for the first time collaboration was developed with the Marino Institute in Dublin and Mary Immaculate College in Limerick.

### Greenwave

Greenwave is an initiative of the DSE Programme at Forfás that began in 2006 and facilitates primary schools across Ireland observing and recording the arrival of the signs of spring. Students observe and record details of weather and common species on the project website [www.greenwave.ie](http://www.greenwave.ie). This allows participants to build a picture of how species in their locality react to longer days and warmer temperatures, and to consider whether the green wave of spring moves from south to north across Ireland or inland from the coast to the centre of the country. During 2011 the project expanded to include 17 European countries as part of the Fibonacci project, <http://www.greenwave-europe.eu/>.



### Greenwave

Winning photos submitted in 2011

### Partnerships - collaboration with ESERO, SEAI and Abbott Ireland

During 2011 DPSM continued to identify and activate collaborations with organisations similar to the current relationships with the teacher education colleges allowing stakeholders to share costs and enhance inputs to the education sector.

On foot of the establishment of the European Space Education Resource Office (ESERO) in DSE a new programme theme of space was identified and developed successfully over 2010-11 resulting in new space themed activities; a successful teacher summer course application linking to the theme of numeracy; and the inclusion of a space element in the criteria for the Awards of Science and Maths Excellence.



### Discover Primary Science Teacher Education

Teachers test foam rockets at the summer course

In collaboration with Abbott a new Science at Home section has been launched on [www.primaryscience.ie](http://www.primaryscience.ie) and populated with activities.

Working in partnership with SEAI, a new flash activity on sustainable energy was added to the website. A joint training event for DPSM trainers and SEAI workshop facilitators took place in September 2011 to facilitate the Discover Centres network in becoming involved in the delivery of SEAI workshops for schools.

## Second Level Science

### Discover Sensors

The Discover Sensors project promotes inquiry based teaching and learning at second level and is supported through the use of ICT in the classroom. Central to the project is a framework of inquiry based teaching and learning which has been developed by science teachers for use by science teachers.

Discover Sensors takes a blended approach to teacher Continuous Professional Development (CPD) and a key element of the project is a teacher section of the website [www.discoversensors.ie](http://www.discoversensors.ie). This section houses resources such as video tutorials, which complement face-to-face sessions, and a teacher forum where science teachers collaborate and share ideas as part of a community of practice.

The project provides students with an experience of real science in the classroom all the while supporting the investigative approach promoted by the Junior Certificate science syllabus.

Discover Sensors has worked with over 600 Junior Certificate science teachers in the past five years. In 2010 DSE introduced a new pilot with all the science teachers in Kildare and Louth Vocational Education Committee (VEC) schools. This model of delivery has shown the importance of working with all science teachers in a school and that the support of the school management and colleagues is vital in trying to introduce change to teaching. The Discover Sensors project is currently investigating different methods of assessing Junior Certificate science with Kildare VEC first year students and includes the development and testing of an ePortfolio website ([www.scifolio.ie](http://www.scifolio.ie)). This pilot is in partnership with the National Council for



Curriculum and Assessment (NCCA) and is contributing to the NCCA Innovation and Identity consultation process on a new Junior Certificate.

### SciFest

SciFest is a series of one-day science fairs partnered by Intel Ireland and DSE, and hosted nationwide by the Institutes of Technology. Each SciFest science fair includes a competition and exhibition of projects, a selection of science talks, science demonstrations in the college laboratories and a prize-giving ceremony. In each venue students compete for a number of category awards sponsored by industry partners.

SciFest is an important strategic partnership for DSE as its aim is to encourage a love of science through active, collaborative, inquiry-based learning and to provide a forum for students at local and regional level to present and display their scientific investigations. The learning experience coupled with the opportunity of sharing their results with their peers and the judges at SciFest takes students to another level beyond just memorising facts. Students are then more likely to leave school equipped with the necessary skills for solving real world problems.

2011 saw increases in the numbers participating up from 2,649 in 2010 to over 2,900 in 2011 and a 16% increase in the projects.

### European Space Education Resource Office (ESERO) in Ireland

ESERO Ireland, based in Forfás during 2011, provides educational material and activities which will make science more exciting to young people by using space observation and exploration as an engaging theme. Established in 2010, ESERO also supports Ireland's increasing involvement in the space industry. ESERO offices have been established in five countries across Europe. ESERO Ireland is co-funded by the European Space Agency (ESA) and DSE.

Overall 2011 saw a growth of ESERO Ireland activities and a continuation of the forging of relationships with teachers' organisations, academia, government and industry. A review of the ESERO Ireland activities for 2010 was successfully completed with the ESA in January 2011 based on the agreed implementation plan.

The space theme was reflected across all of the established DSE programmes in 2011 and in November 2011 ESA extended the funding of the programme by one year to December 2012. Since September 2011 DSE has been contributing to ESA's future plans to expand the current ESERO network of five countries to up to 17 member countries in total.

### Partnerships

DSE provides funding to a number of strategic partners in the field of engineering, namely Steps to Engineering operated by Engineers Ireland and the Cork Electronics Industries Association. These strategic partnerships allow DSE to deliver the engineering element of its remit while the core work of the DSE executive is related to science.

In addition, DSE also provided funding to a number of organisations who applied to a call under the headings of Science Week, Maths, Careers and Space during 2011. Work is continuing to ensure that maximum value is extracted from these partnerships.

# The Irish National Accreditation Board (INAB)

Accreditation plays an important role in guaranteeing the access of Irish products and services to both EU and worldwide markets. The demand for accreditation has increased significantly in recent times as national regulators continue to rely on conformity assessment as a mechanism to support the implementation of legislation and assure competence. A division of Forfás, The Irish National Accreditation Board is Ireland's appointed national body within a European network of accreditation bodies.

INAB is signatory to the multilateral agreements (MLAs) for Europe through the European cooperation for Accreditation (EA) and worldwide through the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF). This signatory status, maintained through regular evaluations, ensures that certificates and reports issued by INAB accredited organisations have international recognition and their accreditations are equally reliable as those issued by other signatory accreditation bodies. This mutual acceptance and recognition is crucial to facilitate trade in goods and services.

## The Irish National Accreditation Board (INAB)

The Irish National Accreditation Board (INAB) is Ireland's national body within a European network of accreditation bodies. INAB assesses certification bodies, laboratories and inspection bodies for conformity against internationally harmonised standards providing assurance that these bodies demonstrate competence and performance capability in carrying out their work.

Accreditation plays an important role in guaranteeing the access of Irish products and services to both EU and worldwide markets. The demand for accreditation has also increased significantly in recent times as national regulators continue to rely on conformity assessment as a mechanism to support the implementation of legislation and assure competence.

INAB's membership of international agreements ensures that accredited certificates and test results produced in Ireland are acceptable worldwide, reducing technical barriers to international trade. INAB is a signatory to the multilateral agreements (MLAs) for Europe through the European cooperation for Accreditation (EA) and worldwide through the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF).

## INAB Functions

INAB has five distinct functions, each operating to specific European and international standards and / or regulations.

- Laboratory Accreditation
- Accreditation of Certification Bodies
- Accreditation of Inspection Bodies
- Good Laboratory Practice
- National Competent Body for EMAS

INAB performs annual onsite inspections to confirm ongoing compliance with accreditation criteria. Decisions on award, maintenance and removal of accreditations are taken by the INAB Executive and Board.

### Laboratory Accreditation

#### Testing and Calibration to ISO/IEC 17025:2005

Laboratory accreditation to ISO/IEC 17025:2005, granted by INAB provides a formal recognition of the competence of the laboratory to perform specific tests. During 2011, INAB carried out 137 onsite inspections of accredited/applicant laboratories within the Laboratory Accreditation Programme which resulted in the maintenance of the 108 laboratory accreditations, award of accreditation to 10 new laboratories and award of extensions to scope across a range of disciplines.

### Medical Laboratory Accreditation to ISO/IEC 15189:2007

INAB maintained 58 medical laboratory accreditations to the international standard ISO/IEC 15189:2007 during 2011 and INAB carried out 77 onsite inspections to applicant and accredited organisations. Accreditation was awarded to ISO/IEC 15189:2007 to two medical testing laboratories in 2011 with a large number of extensions to scope across a range of disciplines. In addition, INAB received further applications for accreditation in all medical disciplines from this sector during 2011 which continues to make it an area of strong growth.



### The Taoiseach celebrates airmid's INAB Accreditation

(l-r) Máire Fox, Quality Manager, airmid healthgroup; the Taoiseach Enda Kenny T.D.; James Stapelton, INAB; Dr. Bruce Mitchell, Executive Chairman, airmid healthgroup; Angela Southey, Technical Manager, airmid healthgroup

### Accreditation of Certification Bodies

INAB accredits certification bodies operating product certification, management systems certification and certification of persons. It also accredits certification bodies for environmental management systems (EMS) certification to EMAS - the EU Eco Management and Audit Scheme.

These certification bodies, in turn, certify organisations to the ISO 9000 series of standards (quality management systems), to ISO 14001 (environmental management systems), to EN 50001 (energy management systems); to ISO 27001 (Information security management), certify products and persons and verify Greenhouse Gas emissions under INAB accreditation.

INAB carried out 49 onsite inspections of accredited/ applicant certification bodies during 2011.

### Greenhouse Gas Emissions Trading Scheme

INAB, in cooperation with the Environmental Protection Agency (EPA), established and implemented an accreditation programme to underpin the implementation of the EU Greenhouse Gas (GHG) emissions trading scheme set out in European Directive 2003/87/EC. The EPA is the designated competent authority for the implementation of the directive in Ireland. INAB continues to be the accreditation body responsible for accrediting verifiers to carry out verifications of the emissions reports according to the relevant legislation.

A new accreditation standard for accrediting GHG verifiers was introduced in 2011 and INAB will implement this standard for its accredited bodies throughout 2012.

## **Management Systems Certification**

INAB maintained accreditation for four accredited certification bodies to enable certification of Irish companies to several management systems standards.

Applications for food safety management system and occupational health and safety system certification were received in 2011.

## **Product Certification**

Food product certification continues to be a significant growth area of national importance. Irish food producers supplying the UK market are required by British food retailers to have their food products certified to the British Retail Consortium (BRC) specification. In addition, Irish food producers supplying to international markets are also required by food retailers to have their food products certified to meet EUREPGAP/GLOBALGAP requirements.

In 2011, INAB maintained and extended accreditation for its certification bodies providing food quality assurance schemes for food products to international requirements, as well as national food quality assurance schemes, such as the Bord Bia and Bord Iascaigh Mhara schemes. The Department of Agriculture and Food has specified INAB accreditation for certification of organic farming activities in Ireland, in accordance with the EU Directive on Organic Farming. INAB currently has two certification bodies accredited for this scheme which is being extended to include aquaculture in 2012.

Food product certification will continue to be a growth area for INAB for the foreseeable future.

In addition to product certification in the food sector, INAB accredits certification bodies certifying installation of security services.

## **Accreditation of Inspection Bodies**

INAB accredits bodies whose work include the examination of materials, products, installations, plant, processes, work procedures or services and the determination of their conformity with requirements and the subsequent reporting of results of these activities. In 2011 INAB maintained the eight inspection body accreditations in the system. Extensions to scope to existing accredited inspection bodies were awarded in the areas of food and engineering inspections.

During 2011 INAB carried out 30 onsite inspections of accredited / applicant inspection bodies and awarded accreditation to an inspection body to enable notification under a product safety directive.

## **Good Laboratory Practice**

INAB is the national monitoring authority for the inspection and verification of Good Laboratory Practice (GLP) under S.I. No.4 of 1991 European Communities (GLP) Regulations. At the end of 2011 four test facilities held GLP Compliance Statements under this programme. Three on-site inspections of compliant GLP facilities were carried out in 2011. In 2011, INAB was successfully evaluated by the OECD (Organisation for Economic Co-operation and Development) for implementation of its GLP Compliance Programme



### National Competent Body for EMAS

INAB is the designated competent body in Ireland for the registration of sites participating in the EU Eco Management and Audit Scheme (EMAS). During 2011 INAB maintained six organisations registered to EMAS, which had their environmental management systems verified by accredited EMAS verifiers in accordance with the Eco Management and Audit Scheme set out in Regulation (EC) No. 1221/2009 of the European Parliament and the Council.

### Regulation 765/2008

The Council of the European Union and the European Parliament has agreed an EU Regulation (765/08) that will, for the first time, provide a legal framework for the provision of accreditation services across Europe. The Regulation sets out the requirements for accreditation and market surveillance relating to the marketing of products. The Regulation, took effect from 1 January 2010 and applies to accreditation of laboratories, inspection bodies and certification bodies providing accredited conformity assessment services either on a voluntary basis or in support of legislation. It sets out the obligations for member states, conformity assessment bodies, accreditation bodies and the European Cooperation for Accreditation (EA).

The Regulation obliges member states to recognise accreditation as the preferred means to demonstrate the competence of conformity assessment bodies. The legal framework for the provision of accreditation services established by this Regulation will enhance the confidence in conformity assessment and encourage the mutual recognition of conformity assessment results and certificates.

In January 2010, INAB was appointed the sole national accreditation body for Ireland.

### Multilateral Agreements

INAB maintained its membership of the multilateral agreements (MLAs) for Europe through the European Cooperation for Accreditation (EA), and worldwide through the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF).

### Accreditation Awareness

Accreditation awareness and feedback from stakeholders continued during 2011. Two editions of the INAB newsletter was produced in 2011 in addition to regular technical updates to clients.



## INAB Board Members



**Tom O'Neill, Chairman**  
Site Leader, Pfizer, Little Island

Dr Adrienne Duff	(ex-Officio) Manager INAB
Dr Nuala Bannon	Inspector, Department of Environment, Heritage and Local Govt
Tom Dempsey	Former Manager, INAB
Dermot Hayes	State Chemist, State Laboratory
Paul Hetherington	Director, National Metrology Laboratory, NSAI
Dr Andrew Hodgson	Consultant Haematologist, Sligo General Hospital
Martin O'Halloran	Chief Executive, Health and Safety Authority
Pat O'Mahony	CEO, The Irish Medicines Board
Prof. Alan Reilly	Chief Executive, Food Safety Authority of Ireland
John Shine	INAB Vice Chairperson, Director of Consumer Practices, National Consumer Agency
Jan van der Poel, Chief Executive <sup>18</sup>	Dutch Accreditation Body (RvA)

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Paul Hetherington was appointed July 2011

John Shine was appointed Vice Chairperson July 2011

Jan van de Poel was appointed July 2011

Michael Maloney, Director of Horticulture, An Bord Bia retired from the INAB Board in June 2011

Vagn Anderson, Manager of International Affairs, Danish Accreditation Body (DANAK) retired from the INAB Board in June 2011

# Corporate Governance

## Corporate Governance

Forfás was established under the Industrial Development Act 1993 and operates in accordance with the provisions of the Industrial Development Acts 1986 to 2009 and under the aegis of the Minister for Enterprise, Trade and Innovation. Forfás has put in place procedures to ensure compliance with the following specific requirements:

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

In accordance with the provisions of the Ethics in Public Office Act, 1995 and Standards in Public Offices Act 2001, Forfás Board Members along with members of the Irish National Accreditation Board (INAB), which operates as a division and sub-Board of Forfás, furnish statements of material interest to the Commission Secretary, Standards in Public Office Commission and copies to the Secretary.

With effect from 2011 members of the Expert Group on Future Skills Needs (EGFSN) along with members of the National Competitiveness Council (NCC) are designated under the Acts. Members of these bodies have furnished statements in respect of 2011.

In addition, Forfás staff members holding designated positions comply with both Acts.

### Freedom of Information (FOI)

With effect from January 2001, Forfás is covered by the provisions of the Freedom of Information (FOI) Acts. These Acts established three statutory rights:

- A legal right for each person to access information held by public bodies;
- A legal right for each person to have official information held by a public body relating to him/herself amended where it is incomplete, incorrect or misleading; and
- A legal right to obtain reasons for decisions affecting oneself taken by a public body.

### Employment Equality Acts, 1998 and 2004

Forfás is committed to a policy of equal opportunities and adopts a positive approach to equality in the organisation.

We operate a number of schemes, providing staff with options in relation to meeting their career and personal needs, such as job sharing, study leave, educational programmes and career breaks.

Forfás complies with its statutory obligations under the Equality Acts 1998 and 2004. A policy on the Protection of Dignity at Work is in operation and has been communicated to all staff.

### Worker Participation (State Enterprises) Act, 1988

Sub-Board consultative structures have been put in place by Forfás to support the organisation's communications and consultative structure.

## Safety, Health and Welfare Act, 2005

In accordance with the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work Act (General Applications) Regulations 2007, Forfás has prepared a Safety Statement that encompasses all the aspects affecting staff and visitor welfare. This document is updated on an on-going basis.

## Prompt Payment of Accounts

The Prompt Payment of Accounts Act 1997 (the Act), which came into operation on 2 January 1998, was amended by the European Communities (Late Payment in Commercial Transactions) Regulations 2002.

The payment practices of Forfás, as required by the Act, are reported on below for the year ended 31 December 2011.

1. It is the policy of Forfás 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 payments are issued as required to ensure timely compliance.
2. The system of internal control incorporates such controls and procedures as are considered necessary to ensure compliance with the Act. The organisation's system of internal control includes accounting and computer controls designed to ensure the identification of invoices and contracts for payment within the prescribed payment dates defined by the Act. These controls are designed to provide reasonable, and not absolute, assurance against material non-compliance with the Act. The Accounts Department produces a report that identifies unpaid outstanding invoices and this report is reviewed regularly.

Management is satisfied that Forfás complied with the provisions of the Act in all material respects.

There have been no material developments since 1 January 2012.

## Prompt Payment to Suppliers

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

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

Forfás reports quarterly in the 'Our Commitments' section of the website on the implementation of the 15 day Prompt Payments Rule.

## Code of Practice for the Governance of State Bodies, 2009

Following the revision of the Code of Practice for the Governance of State Bodies in 2009, Forfás has reviewed its processes to ensure that it is complying with the provisions of the Revised Code.

### Board Members Disclosure of Interests

In accordance with the Revised Code of Practice for the Governance of State Bodies, 2009, Forfás Board Members, on their appointment to the Board and during their tenure in office, furnish details of interests which could involve a conflict of interest or could materially influence the member in relation to the performance of his/her functions as a member of the Board.

### Board Fees and Attendance

Board Member		Fees €'000	Attendance (13 meetings held in 2011)
Eoin O'Driscoll		19	13 of 13
Martin D. Shanahan		10	13 of 13
Sean Gorman	(retired 21 <sup>st</sup> October 2011)	Nil	7 of 10
Barry O'Leary		Nil	8 of 13
Frank Ryan		Nil	10 of 13
William O'Brien		11	11 of 13
Dr Don Thornhill		11	10 of 13
Bob Brannock		11	8 of 13
Tim Dullea		11	13 of 13
Miriam Magner Flynn		11	10 of 13
Simon Barry	(retired December 2011)	22*	10 of 13
Paul O'Toole	(retired December 2011)	Nil	12 of 13

\* Includes arrears for the period 3<sup>rd</sup> March to the 31<sup>st</sup> December 2010 which were paid in June 2011.

## Board Expenses

The total expenses paid to Forfás Board members in 2011 was €7,874 comprising:	
	€
Mileage	6,484
Trains, Taxis & Vouched Expenses	1,390

## Customer Charter

Forfás' Customer Charter sets out its commitment to a high quality of service to our customers. This is available at [www.forfas.ie](http://www.forfas.ie). This Charter includes a procedure for dealing with complaints. In 2011 no complaints were received.

## Energy Efficiency

Under Statutory Instrument (SI) 542 European Communities (energy end-use efficiency and energy services) Regulations 2009, the public sector has specific energy reporting obligations. In each area relevant to energy usage and services to its buildings, Forfás endeavours to employ the most energy efficient and environmentally friendly means available. In compliance with regulatory requirements Forfás displays a Display Energy Certificate in its reception area.

In late 2009 Forfás began a multi-year project aimed at improving the overall energy efficiency in Wilton Park House with the support of the Sustainable Energy Authority of Ireland. This included an oil to gas conversion (2010), installation of energy efficient lighting (2010), enhanced building management system and energy awareness initiatives.

### Overview of Energy Usage in 2011

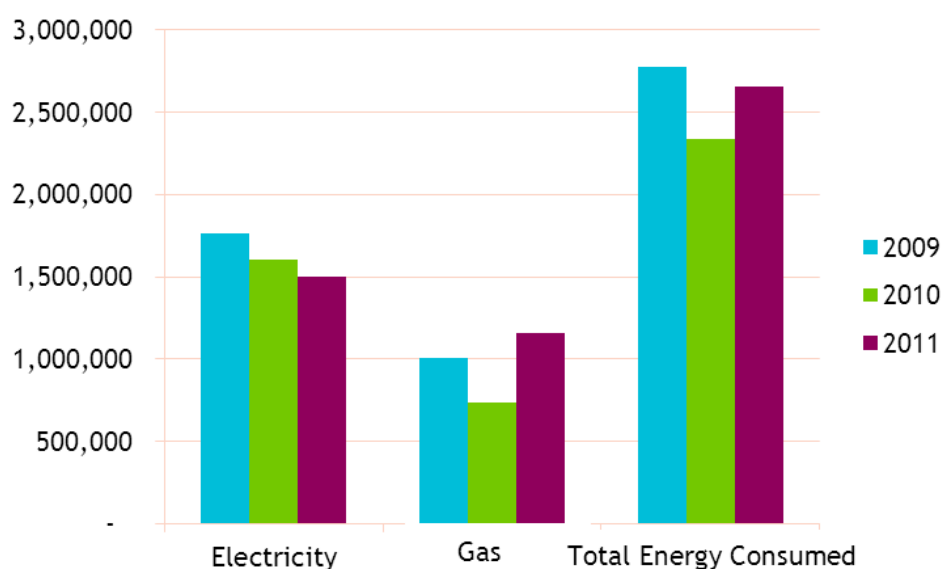
Wilton Park House (WPH) is a seven storey over basement office building constructed in 1984. It has an area of approx. 17,298 m<sup>2</sup>. The building design incorporated high levels of insulation and in many aspects the design anticipated the current environmental emphasis on energy conservation. Wilton Park House is a well insulated building and the U values are at least comparable with current recommendations. This fact, coupled with the configuration and aspect of our offices which reduces the lighting requirement, the absence of major AC installation and use of natural ventilation, are positives from an energy perspective. Three State agencies located in the building report to the Department of Jobs, Enterprise and Innovation (Forfás, Science Foundation Ireland and IDA Ireland) and, together with the Sustainable Energy Authority of Ireland (SEAI), these organisations occupy 14,827m<sup>2</sup> (including Forfás, IDA Ireland, Science Foundation Ireland and the basement). Two tenants also occupy space in the building. In 2011, Forfás, IDA Ireland and Science Foundation Ireland consumed 2,655 MWh of energy, consisting:

- 1,501 MWh of electricity
- 1,154 MWh of fossil fuels
- 0 MWh of renewable fuels



	WPH Usage 2011	WPH Usage 2009		
Energy Type	kWh	kWh	Saving (kWh)	Saving (%)
Electricity	1,765,884	2,078,163	312,279	15%
Gas	1,358,164	1,187,323	-170,841	-14%
Total Energy Consumed	3,124,048	3,265,486	141,438	4%

Figure 17: Energy Usage in Wilton Park House 2009 - 2011



Source: Aramark

#### Actions Undertaken in 2011

In 2011 Forfás undertook a range of initiatives to improve our energy performance including:

- Consolidation and virtualisation of Forfás servers;
- Installation of additional insulation;
- Increased server room set points; and
- Continuing engagement with SEAI on initiatives to improve energy efficiency.

There was an increase in gas usage due to a combination of colder weather and issues with the existing radiator system, the net result of which caused extended run times of the heating system.

### Actions Planned for 2012

In 2012 Forfás intends to further improve its energy performance and that of its tenants by undertaking the following initiatives:

- Re-launch staff awareness campaign;
- Improve radiator efficiency;
- Optimise the building management system;
- Enhance the Active Energy System;
- Merge and reconfigure server rooms;
- Implement desktop PC power management;
- Participate in SEAI Energy Partnership programme; and
- Investigate implementation of a structured energy management system

Forfás aims to save a minimum of 150 MWh in electrical usage annually for the next two years.

### Property Management - Carrisbrook House and Knockmaun House

On the dissolution of the Industrial Development Authority, and the establishment of Forfás on 1 January 1994, the leasehold interest in two former IDA headquarters buildings transferred to Forfás i.e. Carrisbrook House in Ballsbridge and Knockmaun House in Mount Street. The Knockmaun lease expires in July 2014. The Carrisbrook House lease expires in 2034.

These buildings were sub-let for most of the period since 1994, but two tenants, one in Knockmaun House and one in Carrisbrook House, exercised break clauses in 2008 and 2009 and have vacated. The Comptroller and Auditor General has included a note in his Audit Report on the 2011 Forfás Financial Statements, commenting on “Non effective expenditure” incurred on rent and associated costs related to unoccupied office space” in these buildings. Current occupancy ratios are approximately 88 per cent for Knockmaun House and approximately 15 per cent for Carrisbrook House.

Every effort has been made to seek replacement tenants or disposal of the leasehold interest. Working with professional estate agents, a number of new marketing initiatives were undertaken and are ongoing. Forfás continues to work with IDA Ireland in marketing the property. The Office of Public Works (OPW) and Department of Finance have been advised, through the Department of Jobs, Enterprise and Innovation and Forfás, of the availability of vacant space in both these buildings, for consideration in respect of any requests to OPW from within the Public Sector for additional space. Forfás continues to highlight to the OPW the availability of space. In current market conditions and despite a number of engagements with potential tenants, a letting has not been secured.



# Financial Statements

# Statement of Board Members' Responsibilities

## For 2011 Annual Financial Statements

Paragraph 7(2) of the First Schedule to the Industrial Development Act, 1993 requires Forfás to keep, in such form as may be approved of 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.

In preparing those financial statements, Forfás 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 Forfás 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 enables it to ensure that the financial statements comply with Paragraph 7(2) of the First Schedule to the Industrial Development Act, 1993. These books of account are located at the Agency'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:



Eoin O'Driscoll  
Chairman



Martin Shanahan  
Chief Executive

# Comptroller and Auditor General

## Report for presentation to the Houses of the Oireachtas

### Forfás

I have audited the financial statements of Forfás for the year ended 31 December 2011 under the Industrial Development Act 1993. The financial statements, which have been prepared under the accounting policies set out therein, comprise the Accounting Policies, the Income and Expenditure Account, the Statement of Total Recognised Gains and Losses, the Balance Sheet, the Cash Flow Statement and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and 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 Forfás'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 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 Forfás'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 all the financial and non-financial information in the 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 of 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 Forfás's affairs at 31 December 2011 and of its income and expenditure for the year then ended.

In my opinion, proper books of account have been kept by Forfás. 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 moneys have not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- the information given in Forfás's Annual Report for the year for which the financial statements are prepared is not consistent with the financial statements, or
- the Statement on Internal Financial Control does not reflect Forfás'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 draw attention to Note 12 to the financial statements which discloses that non-effective expenditure of €1.43 million was incurred by Forfás in 2011 on rent and associated costs related to unoccupied office space.

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



**Gerard Smyth**

For and on behalf of the  
Comptroller and Auditor General  
31 May 2012

## Statement on Internal Financial Control

On behalf of the Board of Forfás I acknowledge our responsibility for ensuring that an effective System of Internal Financial Control is maintained and operated in the Agency.

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 would be detected in a timely period.

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

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

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

- Identifying the nature, extent and financial implication of risks facing the body including the extent and categories which it regards as acceptable;
- Assessing the likelihood of identified risks occurring;
- Working closely with Government and various Agencies to ensure that there is a clear understanding of Forfás goals and support for Forfás strategies to achieve those goals.

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.

Forfás has an outsourced internal audit function, which operates in accordance with the Framework Code of Best Practice set out in the Code of Practice on the Governance of State Bodies and 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 annual internal audit plans are based on this analysis. The analysis of risk and the internal audit plans are endorsed by the Audit Committee. The Audit Committee meets quarterly to review with the internal auditor the outcome of their audits and to confirm the ongoing adequacy and effectiveness of the System of Internal Financial Control. The Board retained an external expert to advise the Audit Committee on technical financial matters.

## Statement on Internal Financial Control (continued)

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 Forfás who have responsibility for the development and maintenance of the financial control framework and comments made by the Comptroller & Auditor General in his management letter.

I confirm that in respect of the year to 31 December 2011, the Board conducted a review of the effectiveness of the System of Internal Financial Control.

Signed on behalf of the Board



Eoin O'Driscoll

Chairman

## Accounting Policies

### Industrial Development Acts 1993, 1995, 1998, 2003 and 2009

Forfás, the policy advisory and co-ordinating board for industrial development and science & technology in Ireland, was established on 1 January, 1994, under the provisions of the Industrial Development Act 1993, as amended by subsequent legislation. It is the body through which powers are assigned to Enterprise Ireland, for the promotion of indigenous industry, and to IDA Ireland, for the promotion of inward investment.

In addition to its core advisory and co-ordinating function, Forfás has the additional responsibility for pension costs of retired staff of Forfás, IDA Ireland, Enterprise Ireland, Science Foundation Ireland and certain former agencies, under the Industrial Development Acts 1993, 1998 and 2003, as set out in Note 8 of these Financial Statements.

#### 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 Act 1993. 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 applicable.

#### 2. Income Recognition

Income from Oireachtas Grant represents actual cash receipts in the year.

#### 3. Fixed Assets and Depreciation

Fixed Assets comprise tangible fixed assets which are owned by Forfás and 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 as follows:

- Computer Equipment: 3 years
- Motor Vehicles: 4 years
- Fixtures and Fittings: 5 years

Depreciation is charged in the year of purchase and not charged in the year of disposal. Fixtures, Fittings and Computer Equipment below the capitalisation threshold of €1,000 are expended in the Income & Expenditure Account in the year of purchase.

#### 4. Capital Account

The Capital Account represents the unamortised funds utilised for the acquisition of Fixed Assets.

## Accounting Policies (continued)

### 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. Debtors

Known Bad Debts are written off as they arise and specific provision is made where recovery is considered doubtful.

### 7. Pension Costs

Forfás operates six unfunded defined benefit pension schemes, which are funded annually on a pay as you go basis from monies available to it, including monies provided by the Department of Jobs, Enterprise and Innovation and from certain contributions deducted from staff salaries.

Pension costs reflect pension benefits earned by employees in the period and are shown net of retained staff pension contributions. An amount corresponding to the pension charge is recognised as income to the extent that it is recoverable, and offset by grants received in the year to discharge pension payments.

Actuarial gains or 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.

### 8. Operating Leases

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

## Income and Expenditure Account

Year Ended 31 December 2011

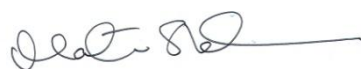
	Note	2011 €'000	2010 €'000
<b>Income</b>			
Oireachtas Grant	1	44,460	44,551
Professional Fees - Irish National Accreditation Board	2	1,958	1,880
Other	3	892	1,004
Departmental Programmes	6	3,304	2,907
Net Deferred Pension Funding	8 (e)	28,615	29,823
		<b>79,229</b>	<b>80,165</b>
<b>Expenditure</b>			
Administration and General Expenses	4	14,605	14,615
Depreciation	7	113	120
Pension Costs	8 (c.i)	60,424	61,703
Departmental Programmes	6	3,304	2,907
		<b>78,446</b>	<b>79,345</b>
Surplus for Year		<b>783</b>	<b>820</b>
Contribution to Exchequer	5	(1,232)	(799)
Balance at beginning of Year		3,182	3,119
Transfer (to)/from Capital Account	9	(134)	42
<b>Balance at end of Year</b>		<b>2,599</b>	<b>3,182</b>

The Accounting Policies, Cash Flow Statement and Notes 1 to 17 form part of these Financial Statements.

On behalf of the Board:



Eoin O'Driscoll  
Chairman



Martin Shanahan  
Chief Executive



## Statement of Total Recognised Gains and Losses

Year Ended 31 December 2011

	Note	2011 €'000	2010 €'000
Surplus for Year		783	820
Actuarial Gain/(Loss) on Pension Liabilities	8 (c.ii)	(25,158)	3,323
Adjustment to Deferred Pension Funding	8 (c.ii)	25,158	(3,323)
<b>Total Recognised Gain for the Year</b>		<b>783</b>	<b>820</b>

The Accounting Policies, Cash Flow Statement and Notes 1 to 17 form part of these Financial Statements.

On behalf of the Board:



Eoin O'Driscoll  
Chairman



Martin Shanahan  
Chief Executive

## Balance Sheet

As at 31 December 2011


	Note	2011 €'000	2010 €'000
<b>Fixed Assets</b>			
Tangible Fixed Assets	7	222	88
<b>Total Fixed Assets</b>		<b>222</b>	<b>88</b>
<b>Current Assets</b>			
Accounts Receivable	10	2,635	2,680
Bank		534	1,336
		<b>3,169</b>	<b>4,016</b>
<b>Accounts Payable</b>	11	<b>570</b>	<b>834</b>
<b>Net Current Assets</b>		<b>2,599</b>	<b>3,182</b>
<b>Deferred Funding Asset</b>	8 (d)	<b>972,389</b>	<b>918,616</b>
<b>Pension Liability</b>	8 (d)	<b>(972,389)</b>	<b>(918,616)</b>
<b>Total Assets Less Current Liabilities</b>		<b>2,821</b>	<b>3,270</b>
Represented By:			
<b>Capital Account</b>	9	<b>222</b>	<b>88</b>
<b>Income and Expenditure Account</b>		<b>2,599</b>	<b>3,182</b>
		<b>2,821</b>	<b>3,270</b>

The Accounting Policies, Cash Flow Statement and Notes 1 to 17 form part of these Financial Statements.

On behalf of the Board:



Eoin O'Driscoll  
Chairman



Martin Shanahan  
Chief Executive

# Cash Flow Statement

Year Ended 31 December 2011

	Note	2011 €'000	2010 €'000
<b>Reconciliation of Net Movement for Year to Net Cash Flow from Operations</b>			
<b>Surplus for Year</b>		783	820
Bank Interest		(48)	(39)
Depreciation Charge:			
- Tangible Fixed Assets	7	113	120
(Increase)/Decrease in Accounts Receivable		45	766
Increase/(Decrease) in Accounts Payable		(264)	(678)
<b>Net Cash Flow from Operations</b>		<b>629</b>	<b>989</b>
<b>Cash Flow Statement</b>			
<b>Net Cash Flow from Operations</b>		<b>629</b>	<b>989</b>
<b>Returns on Investment and Servicing of Finance</b>			
Bank Interest		48	39
<b>Cash Flow before Capital Expenditure</b>		<b>677</b>	<b>1,028</b>
<b>Capital Funding</b>			
Purchase of Tangible Fixed Assets	7	(247)	(78)
<b>Cash Flow after Capital Expenditure</b>		<b>430</b>	<b>950</b>
Contribution to Exchequer	5	(1,232)	(799)
<b>Increase/(Decrease) in Cash</b>		<b>(802)</b>	<b>151</b>
<b>Reconciliation of Increase/(Decrease) in Cash to Cash at Bank</b>			
<b>Movement in Cash for the Year</b>		<b>(802)</b>	<b>151</b>
<b>Cash at Bank at 1 January</b>		<b>1,336</b>	<b>1,185</b>
<b>Cash at Bank at 31 December</b>		<b>534</b>	<b>1,336</b>

# Notes to the Financial Statements

## Year Ended 31 December 2011

<b>1. Oireachtas Grant</b>		<b>2011</b>	<b>2010</b>
		<b>€'000</b>	<b>€'000</b>
Funded by Department of Jobs, Enterprise and Innovation Vote 34			
Administration and General Expenses	Subhead B.1. Forfás	<b>34,683</b>	35,505
Financial Measures Act	Subhead B.2. Forfás (Note 8 (a.i))	<b>9,777</b>	9,046
<b>Total</b>		<b>44,460</b>	44,551

- a) Under Section 11 of the Industrial Development Act, 1993, as amended by Section 4(a) of the Industrial Development Act, 2009, the aggregate amount of grants made by the Minister to Forfás and its Agencies, to enable them to discharge their obligations and liabilities shall not exceed €7,000,000,000. At 31 December, 2011 the aggregate amount so provided to Enterprise Ireland, IDA Ireland and Science Foundation Ireland was €4,292,451,754.
- b) Under Section 14(3) of the Industrial Development Act, 1986, Section 37 of the Industrial Development Act, 1969, and Sections 2 and 3 of the Industrial Development Act, 1977, the aggregate amount of grants made by the Minister to Forfás and its Agencies to enable them to meet their obligations or liabilities in respect of principal and interest on foot of Loan Guarantees under any of these sections shall not exceed €158,717,260. At 31 December, 2011 the aggregate amount so provided was €13,547,211.

### 2. Professional Fees - Irish National Accreditation Board

The Irish National Accreditation Board (INAB) was established as a Committee of Forfás under Section 10 of the Industrial Development Act, 1993 as amended by Section 46 of the Industrial Development (Enterprise Ireland) Act, 1998 to perform the functions specified below.

It is the national body responsible for accreditation of organisations involved in calibration, testing, inspection and certification of quality, product, and personnel management systems in Ireland and is also the statutory GLP (Good Laboratory Practice) compliance monitoring authority. It is the competent body for EMAS (European Eco-Management and Audit Scheme). Professional Fees are generated from these activities which involve assessment of laboratories and certification bodies. Costs incurred in generating this income are included in the relevant expenditure heading.

### 3. Other Income

	<b>2011</b>	<b>2010</b>
	<b>€'000</b>	<b>€'000</b>
Rental Income*	<b>839</b>	820
Bank Interest	<b>48</b>	39
Other Income	<b>5</b>	145
<b>Total</b>	<b>892</b>	1,004

\*Private Sector sublets of surplus space in current headquarter building Wilton Park House

# Notes to the Financial Statements

Year Ended 31 December 2011

## 4. Administration and General Expenses

	2011	2010	
	€'000	€'000	
Board Members' Remuneration and Expenses (Including Chief Executive Remuneration) <sup>1</sup>	324	312	
Pay Costs <sup>2</sup>	6,694	7,079	
Other Personnel Costs	218	266	
Travelling & Subsistence Expenses	199	229	
Specialised and Professional Services	914	894	
Research and Studies	1,106	490	
Rents, Rates, Repairs and Maintenance <sup>3</sup>	3,977	4,181	
Other Operating Expenses	874	872	
Office of the Chief Scientific Adviser <sup>4</sup>	280	273	
Audit Fee	19	19	
<b>Total</b>	<b>14,605</b>	<b>14,615</b>	
Pay Costs comprise:			
Wages and Salaries	6,198	6,569	
Social Welfare Costs	407	416	
Superannuation Costs	89	94	
<b>Total</b>	<b>6,694</b>	<b>7,079</b>	
	2011	2010	
	€'000	€'000	
1 Board Members' Remuneration was as follows:			
Eoin O'Driscoll	Retired by rota 31/12/10 and reappointed 1/1/11	19	22
Don Thornhill	Retired by rota 31/12/10 and reappointed 1/1/11	11	13
William O'Brien	Retired 31/12/09 and reappointed 22/03/10	11	10
Jane Williams	Retired 06/06/10	(1)	5
Sean Gorman	Resigned 21/10/11	-	-
Barry O'Leary		-	-
Frank Ryan		-	-
Frank Gannon	Retired 05/12/10	-	-
Paul O'Toole	Retired by rota 31/12/11	-	-
Simon Barry**	Retired by rota 31/12/11	22	-
Bob Brannock	Appointed 03/03/10	11	10
Tim Dullea	Appointed 22/03/10	11	10
Miriam Magner Flynn	Appointed 03/03/10	11	10
Martin Shanahan	Appointed 07/06/10	10	7

\*\*Fee includes arrears back to the date of appointment on 3/3/10.

Notification was received in January 2011 that Board Members Fees were reduced by 5% backdated to 1 January 2010. The necessary adjustments were made in 2011. The total adjustment amounted to €4,091.

Board Members Expenses €7,874 (2010 €1,469).

# Notes to the Financial Statements

## Year Ended 31 December 2011

### 4. Administration and General Expenses (continued)

#### Chief Executive's Remuneration

A remuneration package comprising salary of €189,115 per annum subject to standard public sector pension arrangements and use of a company car subject to annual benefit in kind of €14,070, provided from 1/7/2011. A Board Member Fee of €9,619 was paid for the period 1/1/2011 - 31/10/2011. The Board Member fee ceased with effect from 1/11/2011.

No performance bonuses were applicable.

2 Pension levy deducted from Pay and remitted to DJEI €509,000 (€532,000 in 2010)

3 These are net of rentals received from sub-tenants of former IDA headquarter buildings assigned to Forfás under the Industrial Development Act, 1993.

4 The Office of the Chief Scientific Adviser (CSA) was established by the Government on 1 September 2004 to provide independent expert advice on any aspect of Science, Technology and Innovation (STI) as requested by Government. In relation to these functions it operates independently from and is not accountable to the Board or management of Forfás. The day to day budgetary requirements of the Office of the Chief Scientific Adviser are funded by Forfás. The Office of the Chief Scientific Adviser reports to the Chief Executive of Forfás on administration issues and is required to comply with Forfás policies and procedures and other governance obligations.

The Office of the CSA is responsible for hosting the European City of Science in Dublin in 2012 (Note 6).

### 5. Contribution to the Exchequer

Income, surplus to budgeted requirements, surrendered to the Exchequer. The amount of €1,232,000 is comprised of refund of Oireachtas Grant B.1 (€857,000) and surplus Own Income (€375,000).

### 6. Departmental Programmes

These externally funded programmes are administered by Forfás, on behalf of the funding bodies listed below. These programmes are accounted for by matching income to expenditure. Over/under expenditure on these programmes is shown in accounts receivable (note 10)/payable (note 11) as appropriate.

a) Programmes		2011 €'000	2010 €'000
Discover Science and Engineering	1 & 6(b)	1,910	2,136
Expert Group on Future Skills Needs	2	317	402
European City of Science	3	1,077	369
<b>Total</b>		<b>3,304</b>	<b>2,907</b>

#### Details of Funding Bodies:

1 Department of Jobs, Enterprise and Innovation

2 National Training Fund of the Department of Education and Skills

3 Department of Jobs, Enterprise and Innovation.



# Notes to the Financial Statements

Year Ended 31 December 2011

## 6. Departmental Programmes (continued)

	2011	2010
	€'000	€'000
b) Discover Science and Engineering Expenditure		
Pay & Expenses	197	224
Communication	286	344
Programme Activities	1,427	1,568
<b>Total</b>	<b>1,910</b>	<b>2,136</b>

The Discover Science and Engineering Programme has been transferred to Science Foundation Ireland with effect from 1 January 2012.

## 7. Tangible Fixed Assets

	Computer Equipment	Motor Vehicles	Fixtures & Fittings	Total
	€'000	€'000	€'000	€'000
<b>Cost</b>				
At 1 January 2011	943	-	2,858	3,801
Additions	153	47	47	247
Disposals	(14)		(24)	(38)
At 31 December 2011	1,082	47	2,881	4,010
<b>Depreciation</b>				
At 1 January 2011	909	-	2,804	3,713
Charge for Year	68	12	33	113
Disposals	(14)	-	(24)	(38)
At 31 December 2011	963	12	2,813	3,788
<b>Net Book Amount</b>				
At 1 January 2011	34	-	54	88
Net Movement for Year	85	35	14	134
At 31 December 2011	119	35	68	222

## Notes to the Financial Statements

Year Ended 31 December 2011

### 8. Superannuation

- a) Forfás has responsibility for the pension costs of retired staff of Forfás, IDA Ireland, Enterprise Ireland, Science Foundation Ireland and certain former agencies, under the Industrial Development Acts 1993, 1998 and 2003. These costs arise under the terms of the following schemes:

Scheme	Staff Covered	Type
<b>Forfás</b>	The Forfás scheme covers the following categories of staff in Forfás and its Agencies - (a) staff recruited up to 5 April 1995 who became pensionable after that date, (b) staff recruited after 5 April 1995, (c) a small number of staff previously covered by the Garda Síochána Superannuation Scheme, (d) a small number of staff previously covered by the FAS/AnCO Schemes, (e) a small number of staff previously covered by the Shannon Free Airport Development Co. Ltd Superannuation Scheme.	Contributory, Defined Benefit, Unfunded. A small number of those in category (b) are included on a non contributory basis.
<b>Former Industrial Development Authority</b>	Staff of the former IDA and those recruited by Forfás and its Agencies in the appropriate grades between 1 January 1994 and 5 April 1995.	Contributory, Defined Benefit. Funded until 31/12/2009. (See Note 8(a.i))
<b>Former Eolas</b>	Staff of the former Eolas (other than those covered by the former NBST scheme below) and those recruited by Forfás and its Agencies in the appropriate grades between 1 January 1994 and 5 April 1995.	Non Contributory, Defined Benefit, Unfunded.
<b>Former National Board for Science and Technology (NBST)</b>	A small number of staff of the former NBST serving on 31 December 1987.	Contributory, Defined Benefit, Unfunded.
<b>Former Irish Goods Council</b>	A small number of staff of the former Irish Goods Council serving on 31 August 1991.	Contributory, Defined Benefit. Funded until 31/12/2009. (See Note 8(a.i))
<b>Former An Bord Tráchtála (ABT)</b>	Staff of the former ABT (other than those covered by the former Irish Goods Council scheme above) who were pensionable employees on 22 July 1998.	Contributory, Defined Benefit, Unfunded.

# Notes to the Financial Statements

Year Ended 31 December 2011

## 8. Superannuation (continued)

Apart from the former Irish Goods Council Scheme, each of the Schemes include Spouses' and Children's Schemes.

Forfás meets the net costs arising from normal retirements. These are paid out of current income. Contributions received by Forfás from staff in the contributory unfunded schemes outlined above are used to part fund ongoing pension liabilities.

(a.i) Under the Financial Measures (Miscellaneous Provisions) Act 2009 the assets of both the Former Industrial Development Authority and the Former Irish Goods Council schemes were transferred to the National Pension Reserve Fund on 31 December 2009. The pension schemes associated with these two funds continue in force for existing members with no impact on benefits or associated provision for members. IDA Ireland, Enterprise Ireland and Science Foundation Ireland remit their employer and employee contributions for these schemes to Forfás for onward remittance to the Exchequer with its own contributions. Total employer (€1,086,533) and employee (€1,284,429) contributions for these schemes were remitted by Forfás to the Exchequer in 2011 and pension costs at retirement are now paid by Oireachtas Grant Subhead B.2.

### b) Pension Disclosures under FRS 17

Financial Reporting Standard 17 (FRS17) requires financial statements to reflect at fair value the assets and liabilities arising from an employer's superannuation obligations and any related funding and to recognise the costs of providing superannuation benefits in the accounting periods in which they are earned by employees.

c.i) Analysis of total pension charge	2011 €'000	2010 €'000
Service costs	15,789	16,214
Interest on Pension Scheme Liabilities	48,127	48,983
Employee Contributions utilised in payment of pensions	(3,492)	(3,494)
	60,424	61,703
c.ii) Analysis of amount recognised in Statement of Total Recognised Gains and Losses (STRGL)		
Experience gains and (losses)	10,889	38,274
Changes in assumptions	(36,047)	(34,951)
Actuarial Gains/(Losses)	(25,158)	3,323

## Notes to the Financial Statements

Year Ended 31 December 2011

### 8. Superannuation (continued)

	2011	2010
	€'000	€'000
d) <b>Net deficit in Pension Scheme</b>	<b>(972,389)</b>	<b>(918,616)</b>
made up of:		
Present Value of pension schemes' liabilities	<b>(972,389)</b>	(918,616)
<b>Change in Pension Schemes' Liabilities</b>		
Present value of schemes' obligations at start of year	<b>(918,616)</b>	(892,116)
Current Service Cost	<b>(15,789)</b>	(16,214)
Interest Costs	<b>(48,127)</b>	(48,983)
Payments to Pensioners	<b>35,301</b>	35,374
Actuarial gain/(loss)	<b>(25,158)</b>	3,323
Present value of schemes' obligations at end of year	<b>(972,389)</b>	(918,616)
<hr/>		
e) <b>Net Deferred Funding for Pensions in year</b>	<b>2011</b>	<b>2010</b>
	€'000	€'000
Funding recoverable in respect of current year pension costs	<b>63,916</b>	65,197
Funding to pay pensions	<b>(35,301)</b>	(35,374)
	<b>28,615</b>	29,823
<hr/>		

Forfás 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 practice currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. Forfás 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 as at 31 December 2011 amounted to €972 million (2010: €919 million).

The quantification of the liability is based on the financial assumptions set out in Note 8 (f). The assumptions used, which are based on professional actuarial advice, are advised to the Department of Jobs, Enterprise and Innovation.

# Notes to the Financial Statements

## Year Ended 31 December 2011

### 8. Superannuation (continued)

- f) The valuation used for FRS17 disclosures has been based on a full actuarial valuation at 31 December 2011. The financial assumptions used to calculate scheme liabilities under FRS17 as at 31 December were as follows:

Valuation method:	Projected Unit:	
	2011	2010
Discount Rate	5.00%	5.25%
Salary Increases	3.50%	3.50%
Pension Increases	3.00%	3.00%
Inflation Rate	2.00%	2.00%

#### Weighted average life expectancy for mortality tables used to determine benefit obligations at:

Member age 65 (current life expectancy in years)	Male	21.0	21.0
	Female	23.9	23.9
Member age 40 (life expectancy at age 65 in years)	Male	23.8	23.8
	Female	25.8	25.8

- g) History of experience gains and losses

	2011	2010	2009	2008	2007
History of defined benefit obligations, assets and experience gains and losses					
Defined benefit obligation (€'000)	972,389	918,616	892,116	857,222	929,488
Fair value of plan assets (€'000) (Note 8(a.i))	-	-	-	185,094	199,183
Deficit/(Surplus) (€'000)	972,389	918,616	892,116	672,128	730,305
Experience (Gains)/Losses on scheme liabilities					
amount (€'000)	10,889	38,274	43,262	(11,377)	(2,625)
percentage of the present value of scheme liabilities	1.1%	4.2%	4.8%	-1.3%	-0.3%

The total recognised actuarial gain since 2004 is €8 million.

- h) Funding of Pensions

Payments for unfunded obligations are expected to amount to €44 million in 2012.

## Notes to the Financial Statements

Year Ended 31 December 2011

<b>9. Capital Account</b>		
	€'000	€'000
At 1 January 2011		88
Transfer to/from Income and Expenditure Account		
- Cost Additions	247	
- Cost Disposals	(38)	
- Depreciation	(113)	
- Depreciation Disposals	38	
	134	134
<b>At 31 December 2011</b>		<b>222</b>
<b>10. Accounts Receivable</b>		
	2011	2010
	€'000	€'000
General Debtors	440	381
Prepayments	1,827	1,930
Inter Agency Balances	295	342
Payroll	20	-
Departmental Programmes	53	27
<b>Total</b>	<b>2,635</b>	<b>2,680</b>
<p>Interagency Balances represents amounts due, if any, from the Forfás Agencies (IDA Ireland, Enterprise Ireland and Science Foundation Ireland) and includes VAT receivable of €119,743 (2010: €154,266) from IDA Ireland and Enterprise Ireland.</p>		
<b>11. Accounts Payable</b>		
	2011	2010
	€'000	€'000
General Creditors	378	501
Accruals	156	166
Payroll	-	112
Inter Agency Balances	36	55
<b>Total</b>	<b>570</b>	<b>834</b>

# Notes to the Financial Statements

## Year Ended 31 December 2011

### 11. Accounts Payable (continued)

General Creditors include €143,400 (2010: €170,220) VAT payable by Forfás on behalf of the Forfás VAT Group (Forfás, IDA Ireland & Enterprise Ireland).

Interagency Balances represent amounts due, if any, to the Forfás Agencies (IDA Ireland, Enterprise Ireland and Science Foundation Ireland) and includes VAT payable of €35,858 (2010: €54,441) to IDA Ireland.

### 12. Commitments under Operating Leases

A net total of €2,862,000 (2010: €2,929,000) has been charged in respect of operating leases on buildings in the accounts of Forfás. Forfás has commitments of €7,005,000 to pay during 2012 in respect of operating leases. Costs arising out of these commitments in 2012 will be shared between Forfás Agencies and tenants in proportion to agreed office space occupied. The net Forfás share of these costs in 2012 is anticipated to be approximately €2,816,000.

The leases will expire as follows:

	€'000
(i) 2012	-
(ii) 2013 - 2017	1,200
(iii) 2018 Onwards	5,805

The following are the premises for which Forfás holds Operating Leases

- |                       |   |
|-----------------------|---|
| a) Wilton Park House  | Headquarter building for Forfás, IDA Ireland and Science Foundation Ireland - Fully let |
| b) Knockmaun House*   | 88.38% Sublet      11.62% Vacant      Total Cost of Vacant Space €180,705               |
| c) Carrisbrook House* | 15.11% Sublet      84.89% Vacant      Total Cost of Vacant Space €1,252,647             |

\*Former IDA Headquarter buildings assigned to Forfás under the Industrial Development Act, 1993.

Forfás continues to actively market the vacant space through the Office of Public Works (OPW) and letting agents in ongoing difficult market conditions.

There were no Finance leases in 2011.

### 13. Taxation

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

### 14. Board Members - Disclosure of Transactions

In the normal course of business, Forfás may enter into contractual arrangements with undertakings in which Forfás Board Members are employed or otherwise interested. Forfás 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 Forfás has adhered to these procedures.

During 2011 no payments were made to any organisations associated with a Board Member.



# Notes to the Financial Statements

Year Ended 31 December 2011

## 15. Contingencies and Legal Actions

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

## 16. Review of State Agencies

Under the proposed rationalisation of State Agencies, which is contained in the Government's Public Service Reform document dated 17th November 2011, Forfás is listed as an Agency for which the scope is to be established to merge it into the Department of Jobs, Enterprise and Innovation. However, there is no expected impact on the value of assets and liabilities in the Balance Sheet. In these circumstances the Financial Statements have been prepared on a going concern basis.

## 17. Approval of Financial Statements

The Financial Statements were approved by the Board on 15 March 2012.



# Appendix 1: Advisory Councils

## Advisory Council for Science, Technology and Innovation



**Dr Tom McCarthy, Chairman**  
**Managing Director, HelmAG Ltd**

Martin D. Shanahan	Chief Executive, Forfás
Dr Sean Baker	Entrepreneur and Chairman of 3 Strata Technologies
Prof. Dolores Cahill	Professor of Translational Science, Conway Institute, University College Dublin
Marion Coy	President, GMIT, Galway
Dr David Lloyd	Burser and Director of Strategic Innovation, Trinity College Dublin
Prof. Brian MacCraith	President, Dublin City University
Prof. Anita R. Maguire	Prof. of Pharmaceutical Chemistry, Director of Analytical and Biological Chemistry Research Facility, University College Cork
Paul McCambridge	Managing Director, Maxim Integrated Products International
John McGowan	Former Vice President (TMG) & Director Corporate Services, Intel Corporation and currently Director of Tualatin Ltd.
Kevin O'Leary	Chief Executive Officer, Qumas
Julie O'Neill	Vice President, Operations and General Manager, Gilead Sciences Ltd.
Prof. Roger Whatmore	Former Chief Executive Officer, Tyndall National Institute

Kevin O'Leary was appointed to the Council in June 2011

Julie O'Neill was appointed to the Council in July 2011.

Bernadette Butler, Managing Director, Good 4U Food and Drink Co. Ltd resigned from the Council in November 2011.

## Expert Group on Future Skills Needs



Una Halligan, Chairperson

Martin D. Shanahan	Chief Executive, Forfás
Marie Bourke	Manager of Education, Skills and Labour Market Policy, Forfás and Head of Secretariat, EGFSN
Inez Bailey	Director, National Adult Literacy Agency
Peter Baldwin	Assistant Secretary, Department of Education and Skills
George Bennett	Departmental Manager, Clean Tech, IDA Ireland
Liz Carroll	Training and Development Manager, ISME
Ned Costello	Chief Executive, Irish Universities Association
Margaret Cox	Managing Director, I.C.E. Group
Tony Donohoe	Head of Education, Social and Innovation Policy, IBEC
Dr Bryan Fields	Director, Curriculum Development / Programme Innovation, FÁS
Anne Forde	Principal Officer, Department of Education and Skills
Garry Keegan	Director, Acumen
Enda McDonnell	Sectoral and Enterprise Development Policy, Enterprise Ireland
John Martin	Director for Employment, Labour & Social Affairs, OECD
Frank Mulvihill	Former President of the Institute of Guidance Counsellors
Dr Brendan Murphy	President, Cork Institute of Technology
Dermot Nolan	Department of Public Expenditure and Reform
Alan Nuzum	CEO, Skillnets
Muiris O'Connor	Higher Education Authority
Peter Rigney	Industrial Officer, ICTU
Jacinta Stewart	Chief Executive, City of Dublin VEC

Brendan Ellison resigned from the Expert Group in June 2011 and was replaced by Dermot Nolan.

Pat Hayden resigned from the Expert Group in June 2011.

Dermot Mulligan resigned from the Expert Group in October 2011 and was replaced by Peter Baldwin.

Terry Corcoran resigned from the Expert Group in February 2012 and was replaced by Bryan Fields.

## National Competitiveness Council



**Dr Don Thornhill, Chairman  
Business Adviser and Company Director**

Martin D. Shanahan	Chief Executive, Forfás
Brendan Butler	Director of Strategy, Trade, EU and International Affairs, IBEC
Shay Cody	Deputy General Secretary, IMPACT
Michael Delaney	Vice President for Development, Cork Institute of Technology
Pat Delaney	Director of Sectors and Regions, IBEC
Clare Dunne	Assistant Secretary, Department of Enterprise, Jobs and Innovation
Annette Hughes	Director, DKM Economic Consultants
Harry Lorton	Chairman, H & A Marketing and PR
Seán Murphy	Deputy Chief Executive, Chambers Ireland
Declan Purcell	Former Chairperson, Competition Authority
William Slattery	Executive Vice President and Head of European Offshore Domiciles, State Street International (Ireland)
Paul Sweeney	Chief Economist, Irish Congress of Trade Unions
John Travers	Consultant and Founding Chief Executive Office, Forfás and Science Foundation Ireland

Michael Delaney was appointed to the NCC in January 2011

Harry Lorton was appointed to the NCC in January 2011

Declan Purcell was appointed to the NCC in January 2011

Ferdinand von Prondzynski retired from the NCC in January 2011

Donal Byrne resigned from the NCC in June 2011

Marcus Hewson resigned from the NCC in October 2011





# Appendix 2: Forfás Publications

## Recent Forfás Publications

The Science Budget 2010/2011 Forfás	June 2012
Annual Business Survey of Economic Impact (ABSEI) 2010 Forfás	June 2012
Overview of the Main Infrastructure Issues for Enterprise Forfás	May 2012
Ireland's Productivity Performance, 1980-2011 Forfás / National Competitiveness Council	May 2012
The Community Innovation Survey 2008 - 2011 April 2012 Forfás/CSO	April 2012
The Irish Enterprise Funding Environment Forfás	April 2012
The Expert Group on Future Skills Needs Statement of Activity 2011 Expert Group on Future Skills Needs	April 2012
Playing our Part: Statement on Horizon 2020 Advisory Council on Science, Technology and Innovation	March 2012
Report of the Research Prioritisation Steering Group Research Prioritisation Steering Group	March 2012
Vacancy Overview 2011 EGFSN	February 2012
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise Forfás	February 2012
Addressing High-ICT Skills Recruitment Needs: Research EGFSN	January 2012
Ireland's Competitiveness Challenge 2011 NCC	December 2011
Strategy for Science, Technology and Innovation Indicators Forfás	December 2011
Review of Energy Competitiveness Issues and Priorities for Enterprise Forfás	December 2011

South East Region Employment Action Plan Forfás	December 2011
Statistics at a Glance 2011 Forfás	December 2011
Report of the Advisory Group for Small Business Advisory Group for Small Business	November 2011
Review of the Economic Impact of the Retail Cap Forfás	November 2011
Business Continuity Planning in Severe Weather Forfás	November 2011
Ireland's Advanced Broadband Performance and Policy Priorities Forfás	November 2011
Intelligent Infrastructure: Delivering the Competitiveness Benefits and Enterprise Opportunities Forfás	November 2011
The Games Sector in Ireland: An Action Plan for Growth Forfás	October 2011
Ireland's Competitiveness Scorecard 2011 NCC	September 2011
Research and Development Funding and Performance in the State Sector 2009 - 2010 Forfás	August 2011
Monitoring Ireland's Skills Supply 2011 - Trends in Education and Training Outputs EGFSN	August 2011
Developing a Green Enterprise Forfás	July 2011
National Skills Bulletin 2011 NCC	July 2011
Forfás Annual Report 2010 Forfás	June 2011
Costs of Doing Business in Ireland 2011 NCC	June 2011





The publications of Forfás and the advisory groups to which it provides research support are available at [www.forfas.ie](http://www.forfas.ie)

To sign up for our email alerts contact us at [info@forfas.ie](mailto:info@forfas.ie) or through the website.

June 2012

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