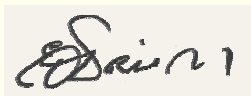


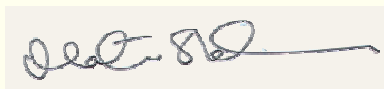
# Forfás Annual Report 2010

## 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 2010.



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, other Forfás activities include awareness, accreditation and shared corporate services.



### Policy Analysis and Advice

Forfás is an agency of the Department of Jobs, Enterprise and Innovation<sup>1</sup> (DJEI), and works closely with the 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.

Forfás provides the Minister and DJEI 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

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<sup>1</sup> In this report we refer to both the Department of Jobs, Enterprise and Innovation (DJEI) and its precursor, the Department of Enterprise, Trade and Innovation (DETI). References to DJEI and DETI are time specific. DETI was renamed DJEI in June 2011.

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 policy advice in 2010 addressed five 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
<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
<b>Sustainability</b>	Contributing to environmental sustainability and identifying enterprise opportunities

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

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 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 the Department of Jobs, Enterprise and Innovation and other Government Departments Forfás works to ensure that the investments that Ireland has made are optimised in all aspects of science, technology and innovation and that the right supports and policy measures are in place to ensure that enterprises are supported and enabled to convert this investment into commercial products and services.

#### **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 standards of living. We have seen some improvement in our international competitiveness with costs of energy, labour and property falling, due in large part to the recession. While improvement is 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. Providing education, training and upskilling that meets the needs of current and future enterprises must be at the heart of our enterprise policy. Forfás also advises on policies which 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, on how Ireland can address the upskilling needs of those who have lost or are losing their jobs and the training needs of those in employment particularly in vulnerable sectors and companies.

### **Sustainability - Contributing to environmental sustainability and identifying enterprise opportunities**

Sustainability encompasses our ability to continue to achieve economic gains while ensuring that our enterprise activities do not impact negatively on the physical environment.

The rapid pace of change in energy and environment markets and policy development is presenting a range of enterprise and competitiveness opportunities and challenges for Ireland. Forfás conducts research and provides policy analysis on critical environmental policy with a clear focus on the enterprise position and identifies infrastructural challenges facing enterprise in Ireland.

As well as ongoing research work under the five policy areas, Forfás provides the Minister and DJEI with responsive, real-time policy advice on a broad range of emerging issues

Forfás supports the DJEI in the promotion and implementation of the outcomes of our advice.

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

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

Forfás manages 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 and knowledge for the development of Ireland as a Smart 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.

### Corporate and Shared Services

Forfás provides certain shared corporate services to IDA Ireland, Enterprise Ireland, Science Foundation Ireland, and the Office of the Chief Scientific Adviser to the Government. 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, co-ordination 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, 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 1080 pensioners and their related records as well as records and

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

queries from approximately 500 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.

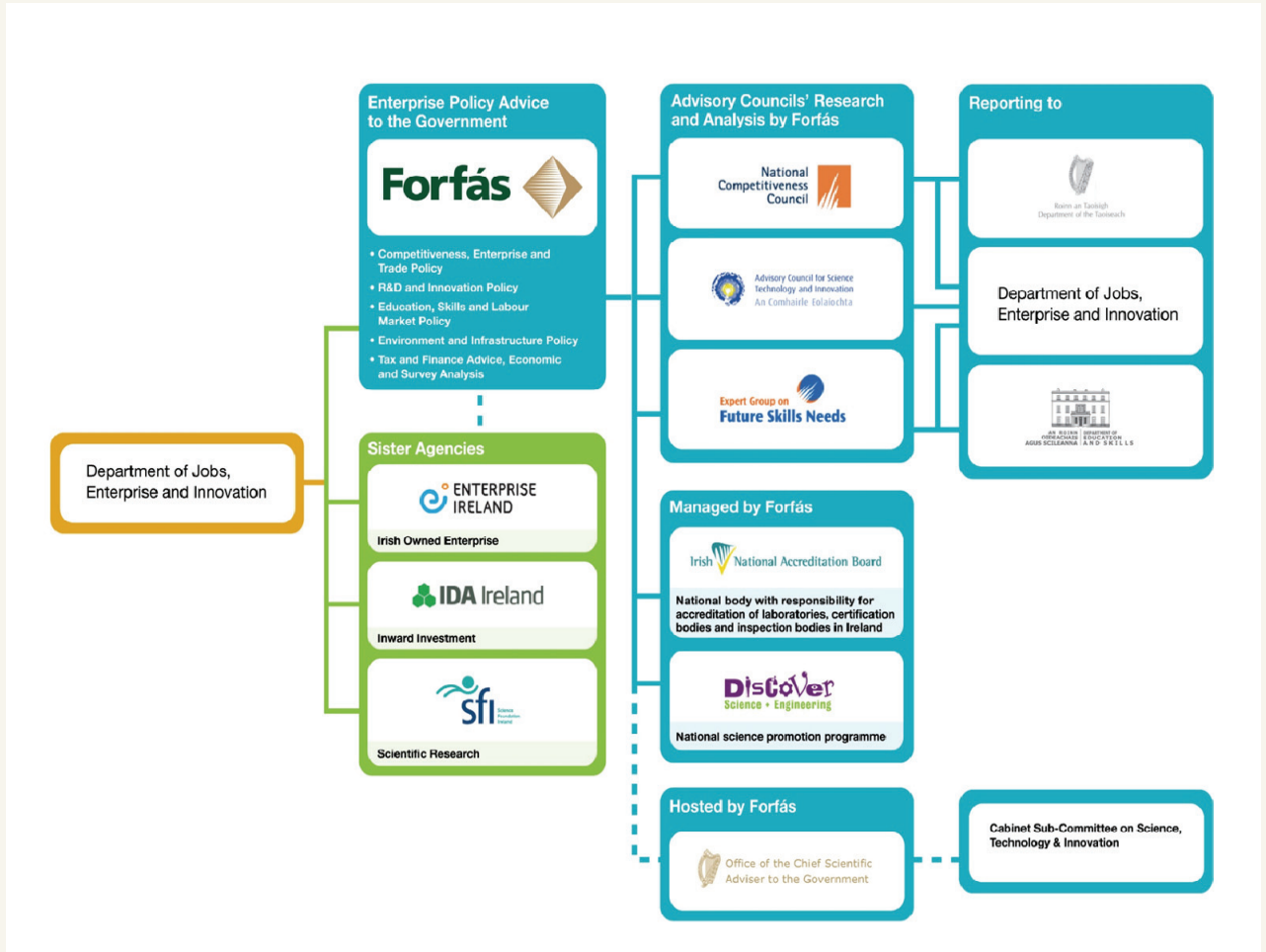
Forfás holds the head leases of the former headquarter buildings of the Industrial Development Authority, including Wilton Park House. In Wilton Park House, Forfás provides for the central procurement and management of facilities, cleaning, courier, travel, telecoms, catering, security, procurement and storage of stationary and related goods for IDA Ireland and Science Foundation Ireland. Forfás is also responsible for the property management of Wilton Park House including rent reviews, tenant liaison, landlord consents etc. Significant energy efficiency upgrade works were also undertaken in Wilton Park House during the year.

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.

### **Forfás Expenditure**

Forfás' detailed Financial Statements are on page 119 of this Report. In summary, approximately 33% of Forfás expenditure is on policy activities and corporate and shared services. 67% of Forfás annual expenditure relates to payments to cross agency pensioners (i.e. Forfás, Enterprise Ireland, IDA Ireland, Science Foundation Ireland and their preceding agencies).














# Forfás, its Sister Agencies and Advisory Councils





# Board Members

## Forfás Board Members

			
<b>Eoin O'Driscoll</b> Chairman, Forfás Chairman, Southwestern	<b>Martin Shanahan</b> Chief Executive, Forfás	<b>Simon Barry</b> Chief Economist ROI, Ulster Bank Capital Markets	<b>Bob Brannock</b> President, European Operations, Genworth Financial
			
<b>Timothy Dullea</b> Former Chief Executive Officer, Tipperary Co-op	<b>Sean Gorman</b> Secretary General, Department of Enterprise, Jobs and Innovation	<b>Miriam Magner Flynn</b> Managing Director, Career Decisions	<b>William O'Brien</b> Chief Executive, Wm O'Brien Plant Hire Ltd
			
<b>Barry O'Leary</b> Chief Executive Officer, IDA Ireland	<b>Paul O'Toole</b> Director General, FÁS	<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			

Jane Williams, Chief Executive, Forfás, retired from the Board of Forfás in June 2010 on completion of her term as Chief Executive.

Martin Shanahan joined the Board of Forfás in June 2010 on his appointment as Chief Executive.

Prof. Frank Gannon, former Director General of Science Foundation Ireland, resigned from the Board of Forfás in December 2010 following his resignation as Director General of Science Foundation Ireland.

Eoin O'Driscoll and Dr Don Thornhill retired from the Forfás Board on a rota basis in December 2010 and were both reappointed in January 2011.

### Forfás Audit Committee

William O'Brien (Chairman)

Sean Gorman

Eoin O'Driscoll

Tim Dullea

### Forfás Management Development Committee

Eoin O'Driscoll (Chairman)

Dr Don Thornhill

Miriam Magner Flynn





# Forfás Management Team

<b>Chief Executive</b>				
				
<b>Martin Shanahan</b>	<b>Enterprise and Trade Division</b>		<b>Science, Technology Innovation, Education and Skills Division</b>	
			<b>Vacant</b>	
	<b>Declan Hughes</b> Division Manager		Division Manager	<b>Michael O'Leary</b> Dept. Manager Secretary's Office, HR, Pensions & Communications
				
<b>Adrian Devitt</b> Dept. Manager, Economic Analysis, Competitiveness, Infrastructure, Tax & Finance	<b>Eoin Gahan</b> Department Manager Trade, Environment & Survey Analysis		<b>Marie Bourke</b> Department Manager Education, Skills & Labour Market Policy	
				
	<b>Maria Ginnity</b> Department Manager Enterprise Policy		<b>Peter Brabazon</b> Manager Discover Science and Engineering	
	<b>Vacant</b>			<b>Note: Martin Craig retired as Department Manager, Finance Department in April 2011</b>
<b>Adrienne Duff</b> Manager, Irish National Accreditation Board	Department Manager Finance		<b>John Dooley</b> Department Manager Research & Development Policy	
				
	<b>Eamonn Kearney</b> Dept. Manager, Systems & Cross Agency Facilities		<b>Karen Hynes</b> Department Manager Innovation Policy	

# Statement of the Chairman and Chief Executive

# Statement of the Chairman and Chief Executive

## The Scale of the National Challenge

While 2010 was a year of almost unprecedented economic difficulties - following on from a similar 2009 - any assessment of economic developments of the past twelve months must consider the progress we have made and the challenges which still confront us.

While the economic outlook remains challenging, it is worth noting some developments which provide a more positive perspective on our situation. After negative growth in GDP for three years, the expectation for 2011 is that Ireland will achieve weak economic growth. This growth will be driven by a combination of continued strong export growth; improving productivity (albeit from a low base); enhanced cost competitiveness; and most importantly of all, by the actions of a dynamic cohort of successful firms with proven track records in competing for, and winning business in global markets. As an open, trading economy, Irish firms, and the Irish economy as a whole, can only benefit from forecast improvements in global growth.

To give ourselves the best possible starting place in the race for sales, exports and investment, however, we must urgently address the outstanding challenges which face us. These are not new, and over the past two or three years, concerted actions have been taken. More is required. Ireland is faced with significant fiscal challenges as a result of a property bubble, the Irish banking crisis and recession and slow global economic growth.

The underlying General Government deficit, not including the extraordinary amounts to recapitalise the banks, was €18.5 billion in 2010 and an estimated €15.75 billion in 2011. In response, Ireland is resolutely implementing an agreed programme to reduce Government expenditure to bridge the gap between our outgoings and our tax take. The result is that Government investment and expenditure is heavily constrained. Allied to this, consumer confidence remains weak, and as a result consumption has fallen precipitously. Similarly, the investment environment remains weak - firms are reluctant to invest in expensive machinery and equipment at a time of limited resources. Such investment is a necessary precursor to productivity growth.

Unemployment has increased significantly over 2010 and is undoubtedly one of the most significant social and economic challenges facing Ireland. It currently stands at 299,000 people or 14.1% of the labour force. There are three elements required to addressing this issue; the first and most challenging is ensuring that sufficient job opportunities are available. The second is ensuring that individuals are appropriately educated and trained to be able to avail of those opportunities. The third is about ensuring that the unemployed are supported appropriately while out of work, mindful of the interaction between welfare supports and labour market rates, and that they are kept close to the labour market through targeted activation designed to meet individual needs.

## Enterprise -The Lifeblood of Recovery

Delivering sustainable economic growth is essential to reducing unemployment and restoring fiscal balance. Sustainable, competitive enterprises will be at the centre of growth.

As the Government aims to bridge the gap between income and expenditure, investment in the enterprise economy must be seen as a necessity not just for enterprise, but critical for the success of the entire economy and society. Growing the enterprise economy is necessary to make our debt manageable and to allow us to achieve societal objectives.

To achieve the growth potential of the enterprise sector, we must build on our strengths, eliminate barriers to growth, encourage and support innovation and relentlessly pursue cost competitiveness and productivity growth in all areas of the economy.

## Ireland's Strengths

Despite the fiscal and banking issues, the exporting element of the Irish economy has proven resilient and provides the basis for getting us back to a sustainable growth path.

Economic growth, driven by property investment and domestic consumption and fuelled by increased levels of personal debt, was unsustainable. The underlying principles of previous success were compromised. As a result we lost competitiveness and investment was deflected away from the productive economy.

We need to focus again on exports and the enterprise economy. Irish exports have increased from €154 billion in 2008 to €158 billion in 2010 and we expect a continued strong performance in 2011. Net exports have also increased from €21 billion in 2008 to €36 billion in 2010 as imports decrease.

Employment in the firms supported by the enterprise agencies has also levelled off recording a 2.3% drop in 2010, significantly reduced from the declines experienced in the previous two years. It is also notable that most of the job losses were as a result of downsizing rather than closures. The tentative indications for 2011 are that both foreign direct investment in manufacturing, services and R&D and indigenous companies exports are showing signs of recovery. Ireland was, and still is a good place to do business, but we need to sustain the progress made on restoring international competitiveness.

In terms of supporting the development of strong modern enterprise base, there is also cause for optimism. Investment in R&D by firms has held up. Irish firms outperform most European counterparts in innovation performance, both technological and non-technological. Modern and R&D performing sectors have sustained output and export growth through recession and there has been growth in indigenous R&D spend which needs to be sustained. There has also been a marked increase in commercialisation activity from higher education institutions.

## Growth Requirements

Exports have the greatest potential to fuel the economy. It is through export trade that we can pay our way in the world. Policies must take consideration of all enterprises as domestically trading enterprises are critical to success of our exporters. Recovery in both will be required to address the unemployment challenge.

While we must be open to new ideas and continually promote innovation policies to ensure that Ireland remains competitive, there is little by way of ‘low hanging fruit’. No single policy action alone will make the difference. What is required is the systemic and systematic addressing of issues which have been identified as inhibiting entrepreneurship and business development. To achieve the objective of building a sustainable, competitive enterprise base, a full suite of complementary actions must be implemented.

## Enterprise Growth Relies on Competitiveness, Productivity, Innovation and a Strong Mix of Enterprise

The fundamentals for enterprise development have not changed. Forfás has continuously highlighted that a sustainable competitive enterprise base relies on four interlinked and complementary growth requirements.

- **The relentless pursuit of cost competitiveness**  
A whole of government response is needed to ensure a sustainable, structural change to costs of doing business relative to competitor countries. While improving, some of our competitiveness improvements are due to the economic downturn and we now must ensure that we take decisions that deliver enduring competitiveness gains.
- **Achieving productivity gains**  
At the national level, productivity can be enhanced through developments and investments in education and skills, information and communications technologies and physical infrastructures and ensuring open competitive markets. In a time of constrained resources expenditure in these areas must be targeted at supporting competitiveness gains through enhancing productivity.
- **Innovation - Central to everything we do**  
Innovation is how firms differentiate their product and service offerings, develop new ways to reach their customers and markets, improve processes and structures. It enhances competitiveness and drives productivity. Research and development is critical to supporting innovation, but non-R&D innovation is equally important. Developing our understanding of markets is integral to innovation.
- **Developing a sustainable enterprise mix of competitive sectors and markets**  
Ireland’s economic success in international markets has been driven primarily by a limited number of sectors and strong trade or intra-firm relationships with a limited number of countries. Building a strong enterprise mix including manufacturing and internationally-trading services business in both new and emerging areas, building on strengths in existing modern and more mature sectors, and developing strong partnerships internationally, can ensure that Ireland is not overly reliant on limited avenues for future growth and employment. A diverse enterprise profile will provide better protection from external shocks and will further underpin a sustainable model for economic growth.

## Enterprise Issues

The key issues facing enterprise that require policy focus remain: the availability of finance & credit; the availability of a skilled and flexible labour force; the cost of doing business; the

continued provision of competitive taxation environment; advanced technological infrastructures; and a favourable operating environment. An overview of Forfás' key enterprise policy recommendations are set out in *Making it Happen - Growing Competitive Enterprise for Ireland, Forfás, 2010*.

In 2010, Forfás continued to conduct important research and provided policy advice to Government on a range of key enterprise issues including: enterprise policy; SME Credit initiatives; labour costs and targeted activation measures for the unemployed, the role of state-owned assets in enterprise competitiveness and growth, future trade and investment strategy, taxation expenditure to support enterprise, a nanotechnology commercialisation framework, Ireland's priorities for the eighth European Framework Programme for Research and Development; and Ireland's competitiveness performance and policy challenges. All of these issues were examined from an enterprise perspective.

## Forfás - Activities and Resources

While Forfás' core activity is research and policy advice, it also undertakes a number of other important functions. The Irish National Accreditation Board is a division of Forfás. Forfás operates the Discover Science and Engineering awareness programme on behalf of the Department of Jobs, Enterprise and Innovation (DJEI) and in addition to its own corporate services, Forfás provides shared services to its sister agencies.

2010 was a challenging year but one in which Forfás achieved more with less resources and one in which an already lean organisation continued to innovate and increase productivity through the internal redeployment of resources; the smart use of information and communications technology; the de-layering of management structures; prioritisation; and cooperation with our sister agencies and other public bodies. Forfás has operated within the Employment Control Framework staffing level provided and Forfás' headcount has reduced significantly over the past two years. In addition to planned savings, a small number of key management positions have remained unfilled due to the moratorium on recruitment.

## Forfás - Performance

The Board and Staff of Forfás are committed to continuing to provide objective, impartial, evidenced-based advice based on rigorous research to the Minister for Jobs, Enterprise and Innovation and wider Government on policies which support enterprise development. The recent past has underlined the requirement for such advice.

Given the nature of Forfás' core activity and work it is difficult to use quantitative metrics to track performance. The ultimate measure is sustainable enterprise growth. Forfás regularly solicits the feedback of stakeholders across the policy system to provide the organisation with a structured understanding of the views and opinions of its stakeholders and to provide feedback on its performance across a wide range of business aspects and which informs the ongoing development of the organisation's strategy.

The most recent feedback shows that Forfás' staff and expertise base are highly regarded and that in providing independent and rigorous research, advice and support, is fulfilling a most important, if not critical role. There was also widespread recognition across the body of the policy community that this core role, providing sound policy advice for Government, must be fulfilled.



## Acknowledgements

Forfás requires the support of many different stakeholders to undertake its work. Forfás works in partnership with our parent department, the Department of Jobs, Enterprise and Innovation, in the development of policy options and we appreciated their support in our work during 2010.

We would like to acknowledge the support of former Minister for Enterprise, Trade and Innovation, Batt O’Keefe and Ministers of State at the Department of Enterprise, Trade and Innovation in 2010, and more recently that of Minister Richard Bruton, T.D. and his colleagues Minister John Perry, T.D. and Minister Sean Sherlock, T.D. at the Department of Jobs, Enterprise and Innovation (DJEI). We would also like to acknowledge Forfás Board member and Secretary General of DJEI, Sean Gorman.

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

Forfás has a formal relationship prescribed in legislation with its sister agencies, Enterprise Ireland, IDA Ireland and Science Foundation Ireland. Beyond this, Forfás and the agencies work extremely closely to ensure that policy is coherent and also that every effort is made to ensure that the use of available resources is maximised through working together. We would like to thank our sister agencies for their support during 2010. Forfás also receives support in its work from FÁS, Shannon Development and Údarás na Gaeltachta.

There is a wider community of stakeholders who also contribute significantly to our work including employer representative groups, trade unions, third level institutions and training bodies.

Forfás manages and supports the work of three advisory councils. We would like to thank the members of those groups, particularly the chairpersons of the Advisory Science Council, Tom McCarthy, the Expert Group on Future Skills Needs, Una Halligan and the National Competitiveness Council, Dr Don Thornhill.

We would also like to acknowledge the work of the Irish National Accreditation Board in 2010, chaired by Tom O’Neill.

We would like to thank the entrepreneurs and business people who have given of their time freely to engage with us directly or through their representative groups to help us develop policy which supports their endeavours.

We would like to acknowledge the work of Jane Williams who was Chief Executive of Forfás for an interim period up to June 2010. We would like also to acknowledge the Forfás Board, drawn from the public and private sectors, who provided their valuable time and expertise to our work once again in 2010.

Finally, we would like to express our thanks to Forfás staff for their hard work, flexibility and commitment. It is their continued dedication and focus that has enabled Forfás to deliver key outputs during the past year.

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# Enterprise

## Supporting the development of successful enterprises

Working with the enterprise development agencies and a broad range of stakeholders, Forfás delivers policy advice that contributes to an environment conducive to successful enterprises.

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

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

We highlight new 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 a strategy for trade, building on Ireland's existing trade relations, and identify the actions needed to expand into new and emerging markets. Forfás partners with State agencies and government departments to facilitate a coordinated approach to sectoral and enterprise development.

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.

## Making it Happen - Growing Enterprise for Ireland

During 2010, Forfás undertook a major review of enterprise policy in Ireland and developed a comprehensive, evidence based action plan to support enterprise growth and sustainable jobs in the short to medium term. *Making it Happen - Growing Enterprise for Ireland*, published in September 2010, sets out the actions needed across a range of policy areas to ensure that the optimum business environment is in place to deliver economic growth and employment opportunities. The analysis was undertaken against the backdrop of global and domestic recession at a time when unemployment had reached over 13 per cent and GNP had fallen by 13.8 per cent over the years 2007 to 2009.

The report drew upon the research and recommendations contained in a range of enterprise related strategies that have been published over recent years, and reviewed them in the context of the current economic context.

What became clear is that the thrust of enterprise policy in Ireland remains the right one, although Ireland needs now to return to export-led growth. Export-led growth is the best route to deliver sustainable economic growth and job creation. Exporting fuels the domestic economy and delivers more sustainable job opportunities than could otherwise be achieved by an economic model dependent on consumption or government expenditure.

Growth in global markets is a key factor and one over which Ireland has no control. However, there are early indications of a return to growth in world markets and Ireland needs to be poised to take advantage of opportunities.

### Critical Success Factors

For Ireland as a small open economy, a sustainable competitive enterprise base will rely on four interlinked and complementary critical success factors: innovation, productivity, cost competitiveness and a strong enterprise mix.

These are the fundamental building blocks for Ireland's future growth and the need to embrace innovation, enhance productivity and reduce costs are relevant to all firms in the economy.

Ireland has a proven track record in a number of markets and sectors and international trade and investment has been relatively resilient during the recession. However, Ireland now needs to build on its existing strengths to exploit other opportunities for growth and job creation over the coming years.



### Opportunities for Growth

*Making it Happen* presents opportunities for a range of sectors under four headings:

1. Building on strengths and convergence
  - ICT, life sciences, agri-food, international financial services and internationally traded sectors
2. Emerging opportunities and untapped potential
  - Clean/green technology, creative industries, marine and maritime, education and healthcare services
3. Revitalising mature sectors
  - Tourism and hospitality, retail and wholesale, transport, logistics and distribution, and construction
4. Locally trading activities
  - Examples include professional services, business services, and personal and lifestyle services

### Recommendations

The report sets out the policy actions needed to support all enterprises: exporting firms, firms with export potential and locally trading firms. It takes a whole of enterprise approach. The recommendations are categorised according to the critical success factors, although each recommendation will have an impact on more than one factor. The recommendations aim to:

- **Deliver on enhanced national productivity by:**
  - Ensuring that Ireland's education system produces high quality, enterprise aware graduates and stimulates creativity and innovative thinking through its curricula design and learning processes.
  - Allocating funding to enhance management development and leadership skills, in-employment training (focused initially on the low-skilled), and stimulating increased productivity in the work place through lean, six sigma and transformational change programmes.
  - Ensuring availability of and access to next generation broadband, and maintaining and coordinating targeted investments in physical infrastructures to meet the needs of enterprise.
- **Stimulate increased innovation by:**
  - Prioritising public investment in research to meet the needs of current and future enterprise, and continuing to build a supportive Intellectual Property framework that facilitates commercialisation.
  - Utilising public procurement to stimulate innovation and implementing flagship public sector procurement initiatives.
  - Supporting entrepreneurship to include enhancements to access to finance and bankruptcy law.



- **Deliver a structural change in Ireland’s relative cost competitiveness by:**
  - Focusing on areas of importance to business including regulation, waste, local authority charges and commercial rates.
  - Developing a national policy to increase labour market flexibility to restore labour cost competitiveness and incentivise work and recruitment.
- **Develop Ireland’s enterprise mix by ensuring a coherent approach is taken to sectoral development and to targeting new market opportunities.** Recommendations include:
  - Developing international trading relationships;
  - Fostering networks and alliances;
  - Enhancing relevant international marketing skills within firms; and
  - Undertaking programme evaluations in a systematic way to measure their appropriateness, effectiveness and efficiency in delivering on policy objectives.

### Implementation

Since the publication of *Making it Happen - Growing Enterprise For Ireland* a number of its recommendations have been reflected in the National Recovery Plan 2011-2014 and the new Programme for Government.



Providing independent and rigorous research, advice and support to Government.

Forfás Chief Executive Martin Shanahan briefs Richard Bruton, TD, Minister for Jobs, Enterprise and Innovation at a meeting in April 2011.

### Trading and Investing in a Smart Economy

Forfás worked closely with the Department of Enterprise, Trade and Innovation (DETI) in 2010 in developing the Government Strategy for Trade, Tourism and Investment, *Trading and Investing in a Smart Economy*, launched in September 2010. Forfás provided much research

analysis and data support in terms of merchandise and services statistics, extensive research papers on a number of countries in high growth and emerging economies highlighting many of the opportunities for Ireland and also participated in the High Level Group as a key member. The strategy recognised that the global environment for trading and investing is changing. To maintain our position as an export-orientated small open economy every point of contact with a country needs to be maximised in terms of trade, tourism, FDI, education and culture, and research and development. Deeply embedded in this strategy is the concept of economic partnership programmes of action in the complementary fields of trade, tourism, investment, education, R&D, and cultural links between two countries to the economic benefit of both. Development of economic partnerships is a key priority for Forfás in 2011 with an initial focus on high growth and emerging economies. Forfás continues to work with and support DETI in relation to multilateral and bilateral trade issues.

## Enterprise Access to Finance

Forfás provided advice to the Department of Enterprise, Trade and Innovation (DETI) and other Government Departments on the issue of enterprise access to credit.

### Loan Guarantee Scheme

Internationally, loan guarantees schemes have become an increasingly prevalent public policy instrument to support credit flow to business - particularly in dealing with the current financial crisis. Ireland is one of a very small number of EU and OECD member states not to have a loan guarantee scheme. DETI requested the examination of a loan guarantee scheme to determine whether it could address the difficulties of certain commercially viable businesses in accessing credit.

Forfás has recommended the introduction of a carefully targeted loan guarantee scheme on the basis that it would deliver positive returns for the economy and address the competitive disadvantage being experienced by Irish SME's. Under such an initiative, a loan guarantee would be provided by the State as guarantor to the lender, under strict criteria to target the identified market failure, thereby facilitating the outflow of additional credit from the banks to the targeted commercially viable SMEs. Research of schemes in other countries has been utilised to recommend a scheme that minimises risk exposure for the State while maximising the economic benefits. Forfás worked closely with DETI, Enterprise Ireland and other key stakeholders in considering the potential of a loan guarantee in an Irish context.

The Programme for Government commits 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". On 10 May, Minister for Finance, Michael Noonan announced that as part of the Government's Jobs Initiative and in accordance with the commitment in the Programme for Government, the Government would initiate a tendering process for the development of a temporary, partial credit guarantee scheme. Further, the Minister noted that the objectives of the scheme will be encourage banks to lend to new or expanding commercially viable SMEs so that they can grow their company, develop new products or expand into new markets.

## The Role of State-Owned Enterprises

State-owned enterprises play an important part in the Irish economy, employing over 41,000 people directly and representing 5.8 per cent of GDP. The majority of state-owned enterprises are engaged in the provision of essential infrastructure and related services which are vital to the competitiveness of the economy, including energy, transport and telecommunications.



### Forfás presents at Public Affairs Ireland conference

Adrian Devitt, Manager of the Economic Analysis, Competitiveness, Infrastructure, and Tax and Finance Department in Forfás presenting at the Public Affairs Ireland conference “A national policy for State-owned enterprises?” in November 2010.

The Forfás report, *The Role of State-owned Enterprises*, published in July 2010, assesses the factors required to ensure that state-owned enterprises (SOEs) are providing high-quality, competitively priced infrastructure and services to Irish enterprise and are maximising their broader contribution to supporting economic recovery and opportunities for enterprise and innovation. These include:

- **Developing a national policy on the role of enterprises.** An ownership policy should be put in place that defines the overall objectives of state ownership and the corporate governance of SOEs. The state as a shareholder should have a strategic approach to SOEs rather than approaching issues on a case by case basis.
- **Developing clear criteria to guide the potential sale of state-owned assets.** If privatisation is to improve the quality of infrastructure, services and the performance of firms over the longer term, it needs to be complemented by policies that promote competition and effective regulation of the industry in question. It is essential not to sell natural monopoly assets (such as electricity transmission lines, gas pipelines etc.) or assets to dominant competitors. If it is deemed appropriate to privatise an SOE, there is a strong case for divesting State assets when conditions in financial markets are favourable.

- **Evaluating the mission and goals of state-owned enterprises.** In the absence of regular reviews, there are risks that SOEs can drift from their founding goals or that individual SOE goals may not reflect current national economic development needs. Particular attention is required for SOEs engaging in diversification strategies, SOEs buying emerging private sector competitors or SOEs who are increasingly offering similar products and services as markets converge.
- **Implementing clearer governance structures.** State-owned enterprises are often required to pursue multiple and sometimes conflicting objectives e.g. to provide loss-making public services while operating commercially. International evidence suggests that establishing a single, competently resourced unit, dedicated to SOE supervision could improve the State's ability to exercise ownership efficiently and monitor companies under its ownership. Additionally, separating policy, regulatory and shareholder functions would ensure greater transparency and more conscious decision making where conflicts exist.
- **Implementing stronger corporate governance frameworks.** This includes developing clearer mandates and improving monitoring by shareholders. From an enterprise development perspective, additional non-financial indicators that measure the quality and costs of services provided to enterprise relative to trading partners and competitors are important.
- **Developing contestability in markets.** SOEs should not enjoy a competitive advantage simply because of their State ownership. It is also necessary to provide greater transparency on subsidies provided and the costs of meeting public policy goals.

Forfás met with the Review Group on State Assets and Liabilities which was established by the Minister for Finance. The Review Group will be reporting to Government in 2011.

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

The Forfás Pre-Budget Submission 2011 provided advice on the potential implications of a range of proposed tax changes on enterprise. Recommendations were developed following consultation with the enterprise development agencies IDA Ireland, Enterprise Ireland and SFI, and external industry representative bodies.

The focus of these recommendations was to:

- Maintain a competitive ecosystem where enterprise can prosper and create employment.
- Ensure an enterprise-led recovery is not threatened.
- Continue to invest for the future and build the knowledge economy.

Forfás set out a number of principles to guide the approach to Budget 2011 including:

- Ensuring that proposals to increase taxation should follow the hierarchy of taxes least harmful to economic growth, cognisant of the need to achieve €3 billion of fiscal adjustment in Budget 2011.
- Certainty on the 12.5 per cent corporate tax rate is of critical importance to enterprise.

- Any additional taxes should be in the context of broadening the tax base.
- Increasing further the tax burden on businesses would increase the risk of delaying economic recovery.

Recommendations put forward by Forfás were aimed at driving export growth, removing barriers to market development, promoting sustainable development and innovation as well as minimising potential negative impacts to enterprise of policy changes mooted for inclusion in Budget 2011.

Budget 2011 was published in December 2010. Forfás welcomes the inclusion of a number of the principles proposed in the Forfás Pre-Budget Submission to minimise the impact on enterprise of the introduction of a universal social charge as well as the continued expansion of the Double Taxation Agreements (DTAs). The proposed revamp and renaming of the Business Expansion Scheme (BES) to the Employment and Investment Incentive once the necessary approval from the European Commission has been received is to be welcomed in terms of its removal of barriers to market development. Particularly, the increased limit that can be raised by companies to €10 million and the amount that can be raised in any twelve-month period to €2.5 million is to be welcomed along with the reduction in administrative burden through the simplification of the certification requirements.

## Review of Tax Expenditures to Support Enterprise

Some tax expenditures (incentives) are designed to support enterprise. There is an ongoing process of reviewing the tax expenditures in the Irish taxation system. In consultation with the development agencies, Forfás undertook an objective assessment of the costs and benefits of a number of the enterprise related tax expenditure recommendations from the Commission on Taxation report. The assessment was submitted to the Department of Finance to assist their review of tax expenditures for Budget 2011. This work will be ongoing, as the National Recovery Plan 2011-2014 highlights that tax expenditures will continue to be progressively reviewed and removed from the Irish tax system.

## Assessing the Impact of a Universal Social Charge

In November 2010 Forfás published research undertaken to understand the impact of the proposed universal social contribution rate on Irish businesses. The study established a set of indicative rates at which the proposed social contribution could be introduced and assessed the impact of these potential rates on four key enterprise policy areas: the incentive to work; the incentive to take up self-employment and improve the entrepreneurial environment; labour cost competitiveness; and maintaining and attracting key skills. The indicative rates were established under a revenue neutral scenario and did not allow for revenue raising.

Details of the universal social charge (USC) were published with Budget 2011 and introduced in January. Forfás welcomes the introduction of a USC from the perspective of simplifying a cumbersome combination of social insurance systems and levies. However, the fact that PRSI was not amalgamated into the charge weakened this simplification.

The issue of the incentive to work and replacement rates was a significant issue and the introduction of a tiered universal social charge was welcomed in this respect.

## Becoming a Global Leader in Silver Technology

Globally both at government and institutional level there is an increasing prioritisation of the challenges and opportunities posed by ageing populations. Demographic change and population ageing is one of the key trends influencing developments in technology and public and private investment decisions. Countries are recognising its importance and potential, but no country has yet established clear leadership in this field. “Silver technology” is a growing sector of importance in terms of addressing this global challenge and providing many opportunities for enterprise development. The term silver technologies has been adopted to encapsulate the broad range of technologies and services in ICT, medical devices, pharmaceuticals and bio-pharma that can positively influence the ageing experience of older people and that enable older people to remain active in society as well as staying socially connected and independent for longer.

Ireland is well positioned to take advantage and become a global leader in this emerging sector and has many of the essential building blocks. In addition to our favourable tax regime, skilled workforce and position as a gateway to Europe which has served Ireland well in terms of attracting FDI, Ireland has many distinct advantages that are particularly relevant to the growth of the silver technology sector in Ireland including:

- A strong industry base with the involvement of key players both from multinational and indigenous firms with significant expertise in ICT and software development, medical devices and pharmaceuticals.
- High quality and world-class relevant research with a particular focus on technology solutions and applications for the ageing population.
- Strong clinician research activity in hospitals in Ireland.
- An engaged voluntary community in terms of representative and advocacy organisations representing older people and a willingness by the population to be involved in trials.

In 2010 Forfás has worked closely with the development agencies, the Department of Enterprise, Trade and Innovation and the wider policy community to ensure that emphasis is given to this sector within the policy community. Silver technology has been identified as one of the ten key sectors in the Strategy on Trade, Tourism and Investment - *Trading in a Smart Economy*, and was also recognised in the four year national recovery plan.

The realisation of this opportunity for Ireland is based around a three pillar approach of:

- The development of both multinational companies and indigenous firms into clusters;
- The development of an internationally recognised test-bed for new and innovative solutions for an ageing population; and
- Development of enhanced public purchasing and integrated administration in terms of improving healthcare delivery and stimulation of innovation.

These pillars are interrelated and not exclusive of each other and in fact progressing any action will strengthen the outcomes of the others.

Forfás has focused in the latter half of 2010 on how best to deliver a national test-bed infrastructure, taking into account existing activity, and is working closely with the development agencies in finalising a proposal as how best this might happen.

Forfás continues to be a member of the Ageing Well Network and chairs the Silver Technology Working Group which is under the auspice of the Ageing Well Network.

## Supporting the Life Sciences Alliance

Forfás provided support to the Life Sciences Alliance that was established in January 2010. The Alliance brings together high level representatives from industry, the Department of Enterprise, Trade and Innovation, the enterprise development agencies, the healthcare system as well as the research and academic community. It is chaired by Dr Paul Duffy, Vice President of Manufacturing, Pfizer Ireland and Singapore.

The overall objectives of the Alliance are to:

- Increase coordination and collaboration across life sciences stakeholders so that existing resources are used to best effect and focused on an agreed agenda for action; and
- Drive/influence implementation of the recommendations set out in the Forfás report *Health Life Sciences in Ireland - An Enterprise Outlook* published in November 2009.

There are some recommendations that are within the direct remit of the Alliance member organisations to deliver. Many require the Alliance to influence others by clearly articulating the enterprise perspective and needs.

### Progress 2010

The Alliance's members have contributed to the considerable progress to date in this area:

- Science Foundation Ireland (SFI) and the Health Research Board (HRB) launched a co-funded Translational Research Award Programme in 2010. Awards were granted to four of the 53 eligible proposals submitted under the 2010 call. The standard of proposals overall was very high and the Alliance will facilitate an industry showcase of a number of selected proposals from the 2010 call along with those deemed suitable in the 2011 call, once the latter is completed. These activities will enable the Alliance to fully leverage the potential of this initiative.
- The Convergence Network<sup>3</sup> was re-established as a result of the Alliance and plans to host the first of six events in May which will focus on combination products - an area of direct relevance to life sciences. The Molecular Medicine Ireland (MMI) partners, NUI Galway, TCD, UCC, UCD and RCSI, have established the Irish Clinical Research Infrastructure Working Group to accelerate convergence among the academic community.
- Considerable progress has been made in developing relevant skills programmes. These include the launch of the BioInnovate Ireland Fellowship Programme which was launched in NUI Galway in November 2010; the introduction of structured PhD programmes in Biomedical Engineering and Regenerative Medicine (NUIG), and in clinical and translational research (coordinated by MMI<sup>4</sup>); and the mainstreaming of a PhD curriculum for clinician scientists by MMI in its five partner institutions.

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<sup>3</sup> The group is an extension of the group that organised the "Meeting of Minds" convergence conference in June 2008. It is chaired by Sharon Higgins from IBEC who is also a member of the Alliance

<sup>4</sup> MMI is represented on the LifeSciences Alliance

- Collaboration on events has increased considerably over the past year through events such as the SFI/PharmaChemical Ireland and SFI/Irish Medical Device Association (IMDA) research showcases, the HRB/IMDA clinical research event and the life sciences summit in November co-organised by SFI, IDA Ireland and Enterprise Ireland with Business & Finance magazine as the media partner.

## Making a Case for the Reinstatement of Regional Aid

Regional Aid Guidelines inform the limits of grant aid which the enterprise development agencies can provide to firms to support investment and new employment. The limits are based on the EU's objective to direct state aid to the most disadvantaged areas within the EU 27 member states.

Forfás led a cross agency submission to the Department of Enterprise, Trade and Innovation which was used by them in response to the midterm review of the EU's Regional Aid Guidelines 2007-2013 undertaken by the EU Commission. The submission sought the reinstatement of regional aid for large investment projects in the Midwest region which had been lost at the end of 2008. It presented a robust and substantiated basis for reinstatement, based on a solid understanding of state aid objectives, changing economic circumstances and relevant data. The submission was approved by the Commission in July 2010. This decision was welcomed by the enterprise development agencies and by the Mid-West Task Force in the context of the relatively high unemployment in the region.

## Identifying Opportunities for Improving Business Regulation

During 2010 Forfás was a member of the High Level Group on Business Regulation, which is chaired by the Secretary-General of the Department of Enterprise, Trade and Innovation (DETI), and brings together government departments and business organisations in order to identify opportunities for an improved regulatory environment for business through the reduction of administrative burdens and "red tape". The Government, as in other EU states, has adopted a target of a 25 per cent reduction in administrative burdens on business by 2012, and the target has now been shifted to 2011 as part of the four year national recovery plan. This work is being led by DETI, and in support Forfás also hosted seminars with officials from DETI, its agencies, and with businesses on ways to simplify regulation to achieve the 25 per cent reduction target in selected areas of legislation for which DETI is responsible.

## European Business Test Panel

The European Business Test Panel (EBTP) was set up in 2003 by the EU Internal Market Advisory Committee to supplement the Commission's consultation strategy and to provide businesses across Europe with the opportunity to influence the development of business related EU policies. Forfás provides the Irish national contact point for this panel, holds the Irish membership list, validates new applications and promotes the panel. Membership of the panel is voluntary and companies can opt out at any time. There are approximately five to eight consultations each year.



The consultations held in 2010 were:

- Simplification and modernisation of accounting rules (4th Company Law Directive);
- Commercial disputes and cross border debt recovery
- Review of EU minimum rules on organisation of working time (Working Time Directive)
- Moving staff within the European Union and associated social security coordination issues
- A legislative instrument in European contract law

Reports and statistics on each of the consultations are available on the EBTP consultation 2010 website<sup>5</sup>.

## Enhancing Agency Collaboration on Supporting Enterprise

The development agencies<sup>6</sup> play a key role in stimulating entrepreneurship and the development of new businesses, facilitating the expansion of existing companies, and targeting FDI through a broad range of initiatives. In 2010, Forfás continued to support the Department of Enterprise Trade and Innovation in identifying ways to optimise the collective resources, capabilities and knowledge of the agencies in a more strategic way to the benefit of their client companies.

Progress was made in a number of areas, detailed below:

- Procedures to manage transfer of client companies from the portfolio of one agency to another have been revised resulting in a more proactive approach and a significantly reduced timeframe.
- Mechanisms to facilitate newly acquired foreign companies, which were previously indigenous, to access relevant Enterprise Ireland supports (e.g. involvement in trade missions, marketing and leadership skills programmes) were explored. A framework was developed between IDA Ireland and Enterprise Ireland that is now being piloted with a number of companies.
- A cross agency information sharing team has been established to drive a systematic approach to collating, updating, sharing and disseminating information that is relevant to all agencies. A 'do once, disseminate widely - across all agencies' approach is being taken.
- Strategy for Science, Technology and Innovation (SSTI) implementation bodies have adopted a joint approach to deal with cross-cutting initiatives and avoid duplication. A proactive cross agency approach has also been taken to generate company involvement in competence centres.

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<sup>5</sup> [http://ec.europa.eu/yourvoice/ebtp/consultations/2010/index\\_en.htm](http://ec.europa.eu/yourvoice/ebtp/consultations/2010/index_en.htm)

<sup>6</sup> IDA, Enterprise Ireland, Science Foundation Ireland, Shannon Development and Forfás. Údarás Na Gaeltachta also participated in the review although it does not report to the Department of Enterprise Trade and Innovation.

- Sectoral development was identified as a key area where agency activities could be enhanced by developing a coordinated approach and this will be progressed during 2011.

## Agency Programme Evaluations - A Framework

*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 enterprise development agency programmes. A systematic approach to evaluations would provide an assessment of the appropriateness, efficiency and effectiveness of the intervention under consideration before, during or after implementation. Ultimately, a comprehensive approach to evaluations should inform the optimum use of resources in a constrained environment to deliver on enterprise policy objectives.

The development of the framework commenced in 2010 and was completed by the end of March 2011. Taking into account international best practice, the framework has been structured to deal with the specific context of enterprise support programmes in Ireland. It provides a common basis for evaluations undertaken across programmes provided by Enterprise Ireland, IDA Ireland, Science Foundation Ireland and the county enterprise boards. It allows for maximum coherence and comparability across evaluations, a robust basis for resource allocations, and a regular systemised approach to their undertaking.

Guided by the framework, Forfás will undertake a range of agency programme evaluations over the next 12 to 18 months. Forfás will also work with the agencies to embed the undertaking of evaluations to international standards as part of their work practices.

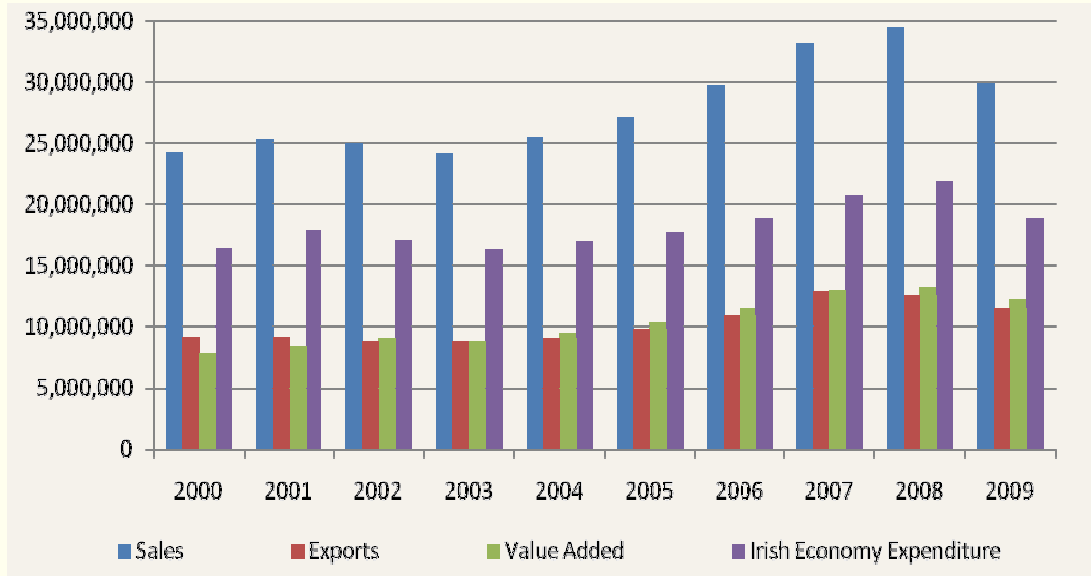
## Enterprise Surveys

### Annual Business Survey of Economic Impact 2009

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 population comprises all manufacturing and internationally traded services client firms in Ireland with ten or more employees (approximately 4,000 enterprises). The response rate for this survey was approximately 60 per cent.

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 such as payroll and training costs. The results show that 2009 was another difficult year for agency-assisted enterprises, with declines in headline sales, exports and direct expenditure in the Irish economy for both sales and manufacturing firms (respectively) and for both Irish and foreign-owned firms. The only positive headline trends was a strong exports figure for Irish-owned services companies (up 7.6 per cent), and slight growth in value added for foreign-owned firms (1.6 per cent overall, 5.7 per cent for manufacturing, -2.2 per cent for services).

**Figure 1. Contribution of Irish-Owned Agency-Assisted Companies in the Irish Economy, 2000 - 2009 (€)**

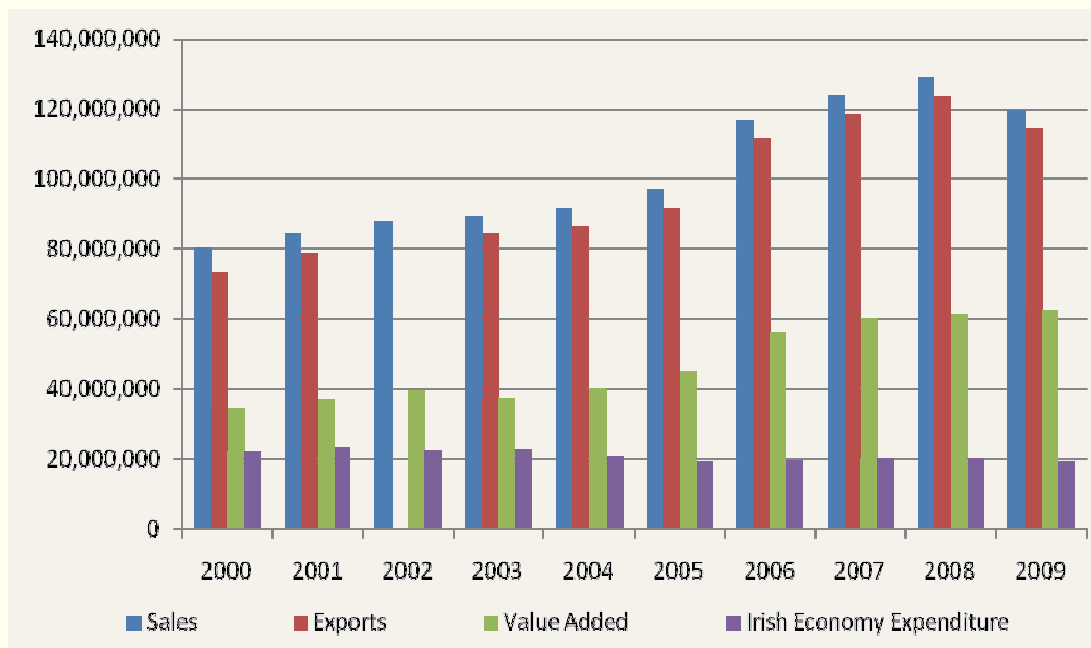


Source: Annual Business Survey of Economic Impact 2009

The total economic impact of the agency client base on the Irish economy remains significant, with these companies contributing almost €38bn in 2009 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 14 per cent over 2008 levels to €18.8 billion, while the corresponding percentage decrease for foreign-owned firms is 6 per cent (€19.1 billion). In 2009, the direct expenditure of foreign-owned firms in the Irish economy also amounted to approximately 14 per cent of Ireland’s Gross National Product (GNP). Value added in all foreign-owned firms was equivalent to over 47 per cent of GNP in 2009.

These results for 2009 are broadly in line with the downward trend of reported sales - a decline of 13.1 per cent (Irish) and a decline 7.2 per cent per cent (foreign); sales by Irish firms now stand at €29.9 billion, while the corresponding figure for foreign firms is €119.7 billion. Exports stand at €11.5 billion (Irish firms) and €114.4 billion (foreign). See Figures 1 above and 2 below.

**Figure 2. Contribution of Foreign-Owned Agency-Assisted Companies in the Irish Economy, 2000 - 2009 (€)**



Source: Annual Business Survey of Economic Impact 2009

### 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 2009 was €3.9 billion, down from €5.1 billion in 2008. It is estimated that agency-assisted firms in the manufacturing and internationally traded services sectors accounted for €1.98bn, with an additional €642m from internationally traded financial services firms, amounting to €2.62bn (67 per cent) of the €3.9bn total corporation tax paid in the economy.

Detailed results of the ABSEI 2009 are available on the Forfás website.

### Annual Employment Survey 2010

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, continues to carry out the survey with the co-operation of Enterprise Ireland and IDA Ireland regional 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 2010 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.

In 2010, total permanent full-time employment in agency assisted companies operating in all sectors amounted to 275,693. This is a decrease of 6,521 jobs (2.3 percent) on employment levels in 2009. However, part-time employment increased by almost 11 per cent between 2009 and 2010. Total full-time employment among Irish-owned companies amounted to 136,385 in 2010, down from 141,274 in 2009, a fall of 4,889. Irish owned company employment is currently 17,484 jobs or 11.4 percent lower than it was in 2001. Among foreign-owned companies, total full-time employment amounted to 139,308 in 2010, down slightly from 140,940 (a decrease of just 1.2 percent on the previous year). These job losses, combined with the 13,960 employment decrease in 2009, result in employment among foreign-owned companies being 14.4 percent (23,380 jobs) lower than 2001 employment levels.

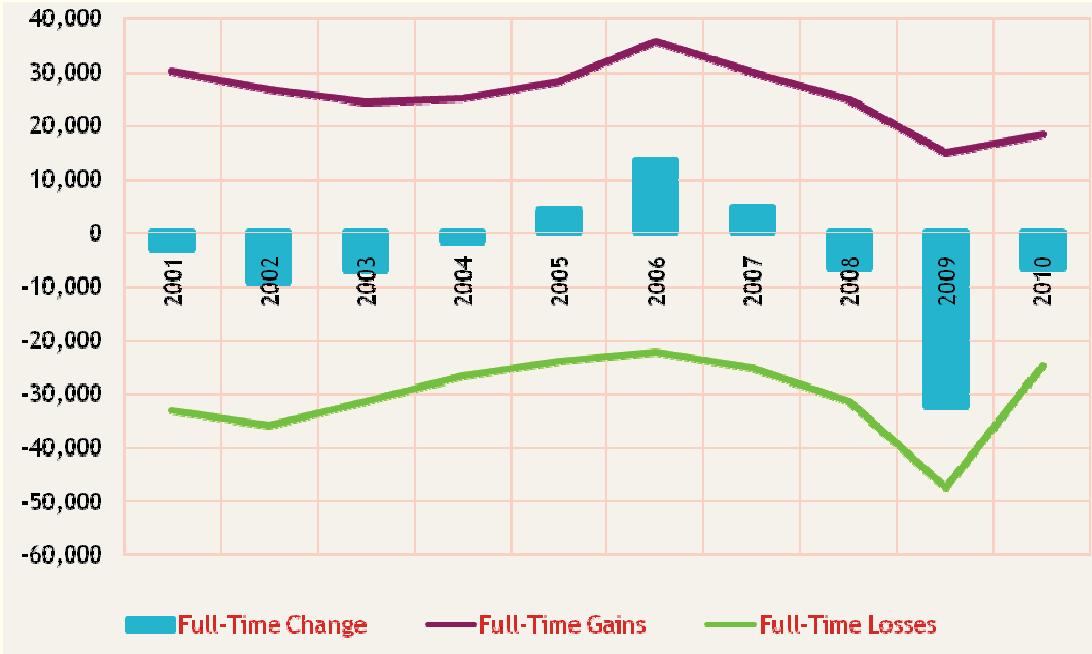
In addition to permanent full-time employment, there were a further 34,345 jobs of a temporary or part-time nature recorded in agency assisted companies in 2010, of which 19,025 are found in Irish firms, and the remaining 15,320 in foreign-owned firms. The temporary/part-time employment level for 2010 is up 3,363 on 2009 levels (10.9 percent). Among Irish-owned companies, there was an increase in temporary and part-time employment of 1,466 (8.3 percent) in 2010. Employment of a temporary or part-time nature among foreign-owned companies increased by 1,897 jobs (14.1 percent) on the previous year. This represents a decrease of 2,587 (14.4 percent) over the period 2007 to 2010. These trends indicate that companies are beginning to employ people on a part-time basis rather than on full-time hours.

Taking the two categories of employment together (permanent/full-time and temporary/part-time), there are now 310,038 people employed in agency assisted companies, compared to 349,371 in 2001. Irish-owned companies increased the number of part-time employees in 2010 by 8.3 percent, suggesting that posts previously occupied on a full-time basis are continuing to be filled, but on a part-time basis. Foreign-owned companies increased this type of employment by 14.1 percent in 2010.

While there were employment losses due to plant closures in 2010, the majority of job losses (74.4 percent) are generated by companies that are continuing to trade but are reducing their staff numbers.

Figure 3 below charts job gains (firms that have increased employment), losses (firms that have decreased employment) and the overall net change in employment. In the period 2001 - 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 is characterised by net job losses, with particularly heavy gross job losses in 2009. In 2010, gross employment gains of 18,351 were offset by gross employment losses of 24,872; the net loss of 6,521 was a much softer decline than in 2009.

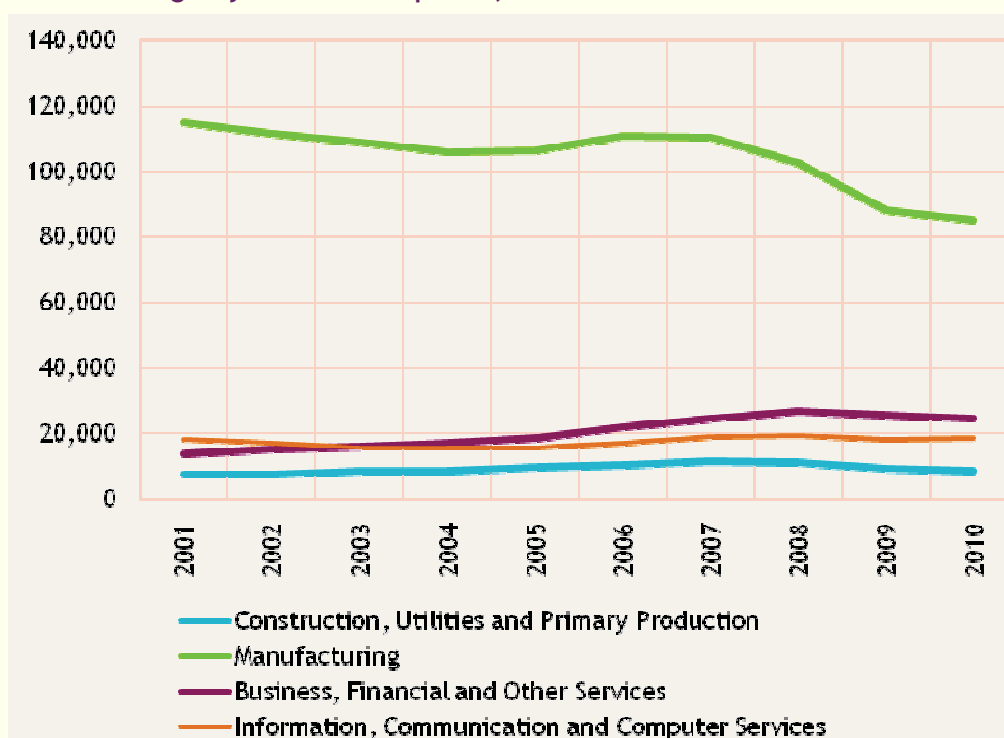
Figure 3. Job Gains, Losses & Net Change in Permanent Full-time Employment in All Agency Assisted Companies, 2001 - 2010



Source: Annual Employment Survey 2010

Figure 4 presents a sectoral breakdown of permanent full-time employment in Irish-owned companies by broad sector. Despite a second successive annual reduction in employment, with a fall of 10 percent (940 jobs) in 2010, Construction, Utilities and Primary Production has seen an increase in employment of 14.7 percent over the period 2001-2010.

**Figure 4. Sectoral Trends in Permanent Full-time Employment within Irish-owned Agency-Assisted Companies, 2001 - 2010**



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>All Sectors</b>	153,869	151,128	149,133	147,534	149,708	160,037	164,911	159,676	141,274	136,385
Construction, Utilities & Primary Production	7,376	7,549	8,383	8,629	9,541	10,429	11,437	11,150	9,398	8,458
Manufacturing	114,767	111,351	108,903	105,999	106,013	110,737	110,253	102,402	88,090	84,926
Business, Financial & Other Services	13,704	15,256	16,028	17,244	18,433	21,957	24,503	26,917	25,686	24,599
Information, Communication & Computer Services	18,022	16,972	15,819	15,662	15,721	16,914	18,718	19,207	18,100	18,402

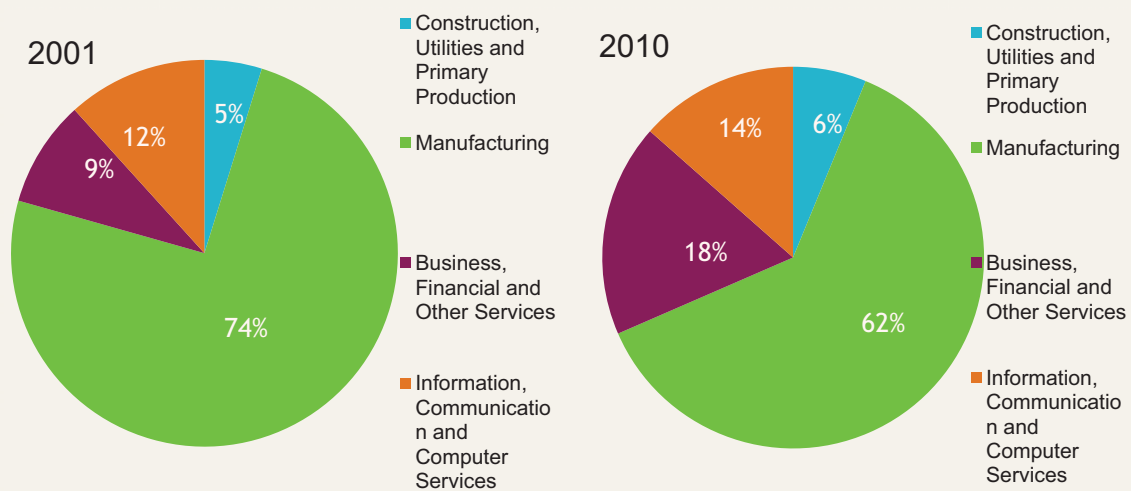
Source: Annual Employment Survey 2010

The decline in agency-assisted Manufacturing employment is apparent in the above graph, with a loss of 29,841 jobs (26 percent) since 2001. With the exception of the Food sector - which accounts for over one-third of Manufacturing employment - and the Medical Devices sector, all Manufacturing sub-sectors recorded falls in employment in 2010, with an overall annual reduction of 3,164 jobs (3.6 percent).

With respect to services, there has been steady growth in the numbers employed in the Business, Financial and Other Services sector grouping in the last ten years; employment levels are just under 80 percent higher in 2010 than they were in 2001. In 2010, employment in this broad sector fell by 1,087 (4.2 percent). Employment in the Information, Communications and Computer Services rose gradually between 2002 and 2008, before falling off during 2009 and 2010. Irish firms in this sector grouping employ 18,402 full-time employees; 302 (1.7 percent) higher than in 2009, and 380 (2.1 percent) higher than in 2001.

As a share of total Irish-owned company employment, manufacturing has fallen from 114,767 in 2001 (74 percent of total employment) to just under 85,000 in 2010 (62 percent of total employment). Alongside an 80 percent absolute increase in employment between 2001 and 2010, Business, Financial and Other Services has seen its share double from 9 to 18 percent 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 2001 and 2010 (see Figure 5).

**Figure 5. Sectoral Proportions in Permanent Full-Time Employment within Irish-owned Agency-Assisted Companies, 2001 and 2010**

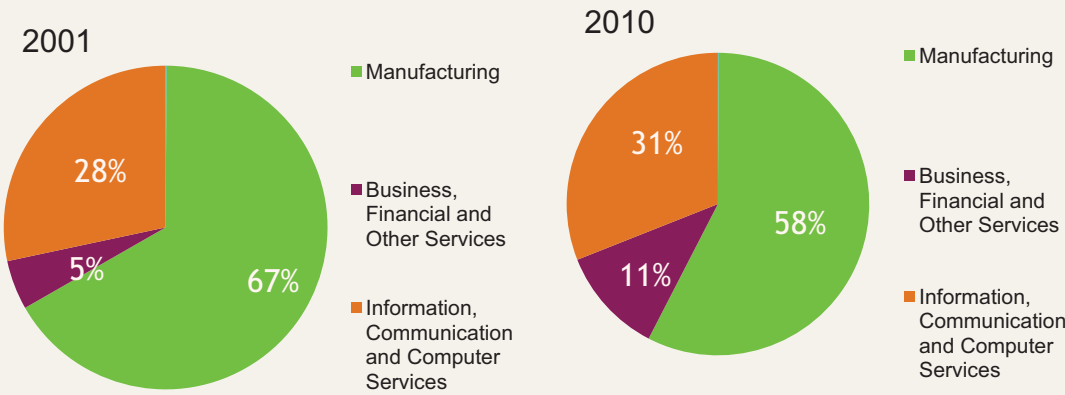


Source: Annual Employment Survey 2010

Figure 6 depicts the proportion of agency-assisted employment for each sector in the economy in 2001 and in 2010. 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 5 to 11 percent.



**Figure 6. Sectoral Proportions in Permanent Full-time Employment within Foreign-owned Agency-Assisted Companies, 2001 and 2010**



Source: Annual Employment Survey 2010

# Knowledge & Innovation

**Making science, technology and innovation work for business and Ireland**

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

We are the State agency designated 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.

## Prioritising Areas of Focus for Publicly Funded Research

The Research Prioritisation Project Steering Group, appointed by the then Minister for Enterprise Trade and Innovation and chaired by Jim O'Hara, commenced work in October 2010 on an exercise to identify priority areas of focus that should be underpinned by publicly funded R&D in Ireland. Forfás is undertaking the research and analysis to support the group's work as well as managing an extensive programme of stakeholder engagement and providing secretariat to the Group.

Based on ten years of sustained investment in publicly funded research designed to complement and underpin private sector investment in R&D and innovation, the Government decided in 2010 that an exercise would be undertaken to identify a number of priority areas and approaches to national challenges that should underpin future Government investment in R&D. Both Forfás and the Advisory Council for Science, Technology and Innovation (ACSTI) had called for such an exercise in 2009.

The exercise is seen as timely at this point for two reasons. Firstly, the ten years of sustained investment in public and private R&D means that there is a meaningful level of capacity in place, in terms of quality and critical mass, which can now be oriented towards particular goals (driven by market challenges and/or societal challenges). Focusing the effort in appropriate directions will help to ensure that the full benefits and impacts of public investment in R&D can be realised. Secondly the current constraints on exchequer resources reinforce the need for this exercise at this particular juncture to ensure that the level of quality and critical mass that now exists within the system is sustained and developed further. While current investment is already focused to some degree, the constraints on public funding that are likely to apply for the foreseeable future require that there is even greater focus needed on the specific contribution that publicly-funded R&D should make to building and maintaining a reputation for excellence in science and a reputation for converting ideas into innovations and solutions that will benefit the people of Ireland.



### Prioritising Areas of Focus for Publicly Funded Research

Chairman of the Research Prioritisation Project Steering Group, Jim O'Hara (left) with Prof. Frank Convery, Director of UCD Earth Sciences Institute, University College Dublin

The prioritisation exercise aims to identify those areas with the greatest potential to contribute to direct economic benefits for Ireland while, at the same time, contributing

solutions to the challenges that affect all our lives in areas such as energy, environment, healthcare, food and agriculture etc.. The aim of the exercise is not to prioritise one research field above another. Research across many disciplines can contribute to the challenges and opportunities being addressed.

Forfás has brought together a large evidence base (drawing in large part on a range of studies already undertaken by Forfás and other organisations) that will support the Group's deliberations. The evidence base includes detailed information on:

- The major societal issues and trends confronting Ireland and other countries based on significant engagement with Government Departments, agencies and a range of other organisations with views on these issues and challenges;
- Global market opportunities, growth markets and the positioning of Ireland's enterprise base based on synthesis of existing sectoral reports and direct engagement with IDA Ireland, Enterprise Ireland and a wide range of industry representative groups in Ireland; and
- Ireland's research strengths and areas of emerging critical mass based on publicly-funded R&D based on a significant mapping exercise involving all of the research funding bodies in Ireland and each of the higher education institutions and public research organisations in Ireland.

The steering group, supported by Forfás, has also examined the approaches to research prioritisation in a number of other countries and will draw on the lessons from these countries in carrying out the Irish exercise. Throughout the process the Steering Group will engage regularly with stakeholders and key experts and it is due to report to the Minister in September 2011.

## Ireland's Nanotechnology Commercialisation Framework

Nanotechnology is a key enabling technology across multiple markets and sectors and between 2002 and 2009, Ireland invested approximately €284 million across the nanotechnology R&D and commercialisation value chain. In 2010 Forfás completed a study on how to leverage this investment through the commercialisation of publicly funded nanotechnology research and development. The study identified the options and models for the island of Ireland to leverage its existing nanotechnology research base to attract and retain Foreign Direct Investment (FDI) as well as encourage the development of indigenous enterprise. This was done keeping in mind the national and international innovation environment. The feasibility of the various commercialisation options, including the possible establishment of a multidisciplinary Nanotechnology Fabrication (NanoFab) facility that would provide researchers, enterprise and entrepreneurs with access to pre-commercialisation facilities, were also evaluated.

The review of nanotechnology infrastructure in Ireland concluded that Ireland invested wisely and has established a world class infrastructure which will serve as a strong foundation as Ireland seeks to produce high quality nanotechnology research and push it towards commercialisation. An analytical review of the complete subset of nanotechnology areas also concluded that Ireland benchmarks well internationally on the basis of normalised publications, patents and quality of research and that Ireland's areas of strength include

electronics, medical devices and pharma. However the review concluded that Ireland does not have the critical mass to make an impact on the global stage.

While the development of a NanoFab facility, with an infrastructural investment similar scale to IMEC or LETI, may signal Ireland's commitment to nanotechnology commercialisation internationally, this report concludes that such a significant investment would yield a poor return on investment.

Forfás has recommended that Ireland needs to be more strategic in its funding of nanotechnology and must resist the temptation to significantly draw back its nanotechnology research and commercialisation funding despite deteriorating economic conditions. Spending realignment, sharp focus and funding source diversification will enable Ireland to continue investing in nanotechnology at a reduced burden to the government in the long term. Ireland should focus its nanotechnology efforts across three technology domains - advanced materials, Beyond Moore, and nanobiotech - which will feed into four application domains: next-gen electronics; medical devices and diagnostics, environmental applications, and industrial process improvements.



#### Ireland's Nanotechnology Commercialisation Framework 2010-2014

Martin Shanahan, Chief Executive of Forfás speaking at the launch of the nanotechnology report

The Forfás recommendations are grouped into six categories:

1. *Establish a national nanotechnology coordinating group:* In August 2010, upon publication of the Forfás report the then Minister for Science, Technology and Innovation appointed a National Nanotechnology Coordination Group, supported by Forfás, to coordinate and oversee the implementation of the recommendations from this report.
2. *Infrastructure:* Ireland needs to aggressively leverage, network and extend existing infrastructure.
3. *Industry:* Ireland needs to significantly increase industry involvement, commitment and investment in R&D activities.

4. *Funding*: Increase funding sources, centralise funding management and tie funding to specific programme benefits.
5. *Collaboration*: Ireland needs to encourage and foster intensive collaboration at a national and international level.
6. *Government withdrawal and self sustainability*: Ireland needs to secure continued future required investment with reduced government contribution.

### The National Nanotechnology Coordination Group

The National Nanotechnology Coordination Group (NNCG) coordinates and oversees the implementation of the nanotechnology strategy. Specifically the group will:

- Promote the development of innovative local nanotechnology industries which will strongly impact Irish economic growth and benefit investors;
- Represent the Irish nanotechnology efforts, nationally and internationally;
- Promote collaboration nationally and internationally;
- Monitoring progress towards achievement of defined goals; and
- Identify appropriate public and private funding sources for selected projects.

The members of the group are:

- Martin Cronin (Chair)
- Leonard Hobbs, Intel
- Michael Howe, Creganna
- Dr Diarmuid O'Brien, Executive Director of CRANN, TCD
- Prof. Roger Whatmore, CEO of the Tyndall National Institute, UCC
- Prof. Brian MacCraith, President of DCU
- Prof. Kenneth Dawson, Director of the Centre for BioNano Interactions, UCC
- Representatives from Forfás, the Department of Enterprise, Trade and Innovation, Enterprise Ireland, IDA Ireland, and the Higher Education Authority.

Forfás supports the group with research and analysis.

### Mapping Research Activity in Ireland

Forfás and the Higher Education Authority completed a study in 2010 which quantified research and development activity in both the public and private sectors as a result of the increased State investment in research and development in the last ten years.

The reports *Research and Development Activity of Irish based Enterprise* and *Profile of Public Research Activity in Ireland 1998 -2006* were published in December 2010 and found evidence of improvement in both quantity and quality of research and development carried out in the country.

The growth in investment over the period in public research has been focused predominantly in the areas of research underpinning information and communication technology and biotechnology. Significant growth has taken place in areas such as health sciences, agricultural biotechnology and engineering, computer and information sciences and the humanities and social sciences. This investment means that Ireland now has a wider portfolio of research areas to leverage than before and large numbers of highly qualified researchers in many areas. Significant numbers of these researchers go on to disseminate their knowledge and skills in Irish based companies in sectors such as chemical and pharmaceuticals, software and food.

Whilst the key focus of the investment has been on building highly qualified research professionals for subsequent employment, the quality of our research output is such that Ireland now ranks very well globally in published research findings in high quality scientific journals.

Over the period examined, the volume of Irish research results published in recognised international journals has more than doubled, however this has been the case in many countries. What is more important is that the quality of the research output as measured by citation impact has improved. Ireland now ranks eighth on the citation impact of its research publications, up from tenth, overtaking Australia and Finland within a group of 20 comparator countries which includes Denmark, Netherlands, US, UK, Finland, Australia, Singapore and China.

The State's increased commitment to research and development has had the underpinning of economic growth as a key objective. In parallel, and in many cases in collaboration with State investment, the Irish business sector has also dramatically increased its commitment to research and development. In overall terms, business research and development expenditure showed strong growth over the period. This grew from €700 million in 1998 to €1.86 billion in 2009, predominantly in the modern high technology and internationally trading sectors of the economy that contribute significantly to employment and GDP. The enterprise sectors most active in research and development in 2007 contributed 67% of GDP and 45% of national employment.

Another positive trend is that companies in most sectors are valuing research and development staff. We have seen the recruitment of R&D staff in times of increasing employment and now also the preferential retention of R&D staff in times of decreasing employment. This indicates a trend of evolution of the sectors' activities to higher value-added operations as seen, for example, in the food and beverage sector.

These reports on the public and private research activity provide one input for the national Research Prioritisation Project which includes the objective of ensuring that investment in research and development can continue to be positive for Irish enterprise and quality of life.

## Categorising State Expenditure on R&D

Published in November 2010, *Categorisation of State Expenditure on R&D* analysed the proportion of State research and development funding that is allocated to basic and applied research. The data presented is based on an approach which considered the classification of funding, according to research type, by the funders of research and development, namely Government departments and their associated funding and research performing agencies.

It was found that State funding for basic research lies in the range of 37 per cent to 49 per cent and applied research in the range 51 per cent to 63 per cent. State funding for basic research within the Higher Education Institutions lies in the range 50 per cent to 68 per cent and for applied research in the range 32 per cent to 50 per cent.

## Evaluation of the STEPs and CEIA programmes

In 2010 Forfás undertook an evaluation of the STEPs and CEIA<sup>7</sup> programmes managed by Discover Science and Engineering (DSE). The objective of the evaluations was to assess the relevance, cost, effectiveness, efficiency and sustainability of both programmes. These programmes target primary and secondary students and aim to raise awareness of the fundamental importance of science, technology, engineering and maths (STEM) subjects and to influence the take up of these subjects as students progress to third level.

The evaluation recommended some changes that would improve the programmes, and include:

- Identifying short, medium and long-term realistic outcomes for the programmes, and improving the monitoring and evaluation of activities;
- Strengthening the activities aimed at students in the junior cycle of secondary school who are at a critical decision making period with respect to the continuance or cessation of their STEM studies;
- Placing more emphasis on alerting teachers to supporting materials to facilitate classroom practice, and maximising the opportunity to engage with second level institutions by using existing initiatives, such as the T4 technology curriculum; and
- Pursuing strategic partnerships more actively with corporate and institutional stakeholders.

The STEPs and CEIA programmes face particular challenges in increasing the impact of their activities because of structural issues over which they have no control such as the lack of trained science teachers, the continuing emphasis in many second-level schools of a didactic approach to science and maths<sup>8</sup> teaching and the poor quality of science facilities in many schools, and because of on-going public concerns about the stability of careers in engineering and technology.

DSE continues to work collaboratively with CEIA and STEPs to optimise use of resources and to embed the recommended changes.

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7 Science, Technology and Engineering Programme for Schools and Cork Electronics Industry Association.

8 The Department of Education and Science 'Project Maths' initiative is piloting an approach to address this issue in maths



## Outcomes from the Review of Supports for Exploitation of Intellectual Property from Higher Education Research

In May 2010 Forfás completed a review of current supports in place to encourage the exploitation of intellectual property (IP) emanating from publicly funded research at the request of the Department of Enterprise, Trade and Innovation. The recommendations were detailed in the 2009 Forfás Annual Report.

Following the publication of *Review of Supports for Exploitation of Intellectual Property from Higher Education Research* the Department of Enterprise, Trade and Innovation established two groups, the IP Implementation Group and the IP Policy Group to work on the immediate implementation of the recommendations in combination with the IP relevant recommendations in the Innovation Task Force report.

## Optimisation of Irish Engagement in Seventh European Framework Programme for Research and Technological Development (FP7)

Forfás continued to provide research, analysis and management of the FP7 Policy Forum during 2010. The forum, chaired by the Department of Enterprise, Trade and Innovation, brings together key stakeholders, including representatives from all of the major research and development funders (both Government departments and associated agencies), Vice Presidents of research from the higher education institutions and members of the FP7 network to share, discuss and action strategic opportunities for increased participation in FP7, with a particular focus on leveraging the national investment in research and development.

Over the period since the forum was established Ireland's drawdown of FP7 funding has outpaced the stretch target of 1.25 per cent of available funds to now being at 1.51 per cent, representing a weekly drawdown of approximately €1.46 million.

Building on the previous work of highlighting and encouraging cohorts of individual researchers to engage in FP7, key areas progressed during the year included the role of research centres in strategically participating in FP7 and measures to ensure greater enterprise engagement. The former objective is being supported by Science Foundation Ireland in encouraging Centres for Science Engineering and Technology (CSETs) to engage strategically in FP7 and Science Foundation Ireland is planning for the monitoring and emphasis of the importance of FP7 engagement by CSETs in the future. The latter objective is being progressed through Enterprise Ireland and IDA Ireland who are working on identifying opportunities for increased FP7 participation for their client companies in receipt of research and development grants.

## Preliminary Paper on Ireland's Priorities for the Eighth European Framework Programme for Research and Technological Development

The EU Framework Programmes have long been the main element in the internationalisation of Irish research and technological development and, building on national investments in research and development in recent years in both the public and private sectors, Ireland is

now participating in the Framework Programme from a far stronger research base than ever before.

Planning for the Eighth European Framework Programme for Research and Technological Development, which will begin in 2014, is already underway and in that context Forfás in conjunction with the Department of Enterprise, Trade and Innovation (DETI) prepared a preliminary paper outlining the views of Ireland on priorities for the Eighth European Framework Programme for Research and Technological Development (FP8) as a proactive input to that process.

It is Ireland's view that the next Framework Programme should:

- Retain trans-national collaborative research as a core competitive component, based on defined key thematic areas.
- Maintain a strong emphasis on human resources (Marie Curie Actions) and measures to support the development of researchers and their careers. The specific action COFUND should be extended to allow full enterprise participation and also support doctoral training programmes.
- Enhance measures to strengthen the links between academia and industry, as partners of equal esteem in developing strong projects and initiatives which should, in turn, demonstrate the potential for commercialisation of appropriate research outputs.
- Support increased innovation and sustainability of European industry, especially SMEs, and incorporate a strong focus on industry-driven, applied research.
- Ensure access to and transparency of Joint Programming Initiatives (JPIs) so that all member states have the opportunity to benefit from tackling grand societal challenges for sustainable development and socio-economic goals such as climate change, energy, water, food security, health and an ageing population. This should also apply to those not directly involved in the programmes. There is a continued role for the framework programme in supporting collaborative research in areas complementary to the research topics being addressed through national funding which is expected to be brought together in the JPIs.
- Seize the opportunity to reduce the complexity of the research, development and innovation (RDI) funding landscape in Europe, and simplify and streamline administration in order to enable greater participation.

## Representing Ireland on the European Research Area Committee

The European Research Area Committee (ERAC), formerly CREST, was established during 2010 and is a strategic policy advisory body whose function is to assist the European Commission and the Council of the European Union in performing the tasks incumbent on these institutions in the sphere of research and technological development. As a co-delegate with the Department of Enterprise, Trade and Innovation (DETI), Forfás has always attached particular priority to and argued for the link between research and innovation. This has been reinforced through Máire Geoghegan-Quinn's appointment as commissioner with responsibility for research and innovation and during the year Forfás ensured that the wider remit of ERAC to include innovation was actively drive<sup>55</sup>

ERAC's activities are gaining increased importance because of the greater prominence of research and innovation in Europe, which is nowadays acknowledged to be an important element of Europe's competitiveness and economic growth. A wide-ranging set of policies objectives was launched by the European Commission under the collective banner of the Innovation Union, one of the flagship initiatives under the Europe 2020 strategy for a smart, sustainable and inclusive economy. Such policy objectives include:

- Delivering the European Research Area
- Focusing EU funding instruments on Innovation Union priorities
- Enhancing access to finance for innovative companies
- Pooling forces to achieve breakthroughs: European Innovation Partnerships

The work on the key issues to be taken into account for future EU research and innovation funding programmes and the work on developing the detail behind the outline policies contained within the Innovation Union, particularly the European Innovation Partnerships, are the key focus areas now for the European Commission in conjunction with ERAC for the evolution of RDI policy towards an innovative Europe. Forfás, in conjunction with DETI, consulted with and continues to consult with key stakeholders on all proposals to ensure that Ireland and Irish enterprise benefit.

## Representing Ireland at the Strategic Forum for International Scientific and Technological Cooperation

The Strategic Forum for International Scientific and Technological Cooperation (SFIC) is a dedicated configuration of the European Research Area Committee (ERAC). The objective of SFIC is to facilitate the further development, implementation and monitoring of the international dimension of the European Research Area (ERA). In practice, this means sharing information and consultation between the partners (member states and the Commission) with a view to identifying common priorities which could lead to coordinated or joint initiatives. The group also aims to coordinate activities and positions vis-à-vis third countries and within international fora. SFIC is composed of high level representatives of the member states and the European Commission. Forfás acts as the Irish delegate to SFIC on behalf of the Minister for Jobs, Enterprise and Innovation and inputs Irish views, including those related to enterprise.

During the year SFIC taskforces have been working on an Indian pilot initiative for international cooperation; the first area of focus will be on 'water'. Other countries (e.g. China) and topics will be considered in future, depending on the outcomes of the pilot. The role and possible added value of SFIC on European energy activities is also under discussion, there already being significant activity in this area at European level. A special workshop for SFIC members to focus on SFIC strategy into the future took place in September 2010.

Forfás continues to consult with key stakeholders including Enterprise Ireland, IDA Ireland, SFI the Department of Jobs, Enterprise and Innovation and the Department of Foreign Affairs, on what opportunities exist for Ireland from a European approach to third country cooperation with the aim of identifying opportunities for Ireland, and in particular, Irish enterprise.

## Representing Ireland at the European Strategic Forum on Research Infrastructures

Given the level of investment in science and technology to date and the ongoing commitment to science and technology into the future, it is important that Irish researchers from all sectors can access the most suitable infrastructure for their work, be that in Ireland or abroad. Provision of and access to appropriate research infrastructure is essential for high quality research and development, including public-private sector collaborative work.

By actively taking part in the European Strategic Forum on Research Infrastructures (ESFRI), Forfás and the Higher Education Authority (HEA) as national co-delegates are enabling a flow of information and facilitating national and European decisions at policy level on matters relating to infrastructure. Working closely with research funders, their parent departments and their researchers we can ensure that our input is well informed and that the needs of the research communities in Ireland and Europe are well met.

Participation in quarterly ESFRI meetings and other ESFRI activities provides an opportunity for Forfás to:

- Connect the industry agenda with decisions being made on infrastructure at European Union level;
- Steer decisions which are being made on infrastructure to bring them closer to areas of relevance to Ireland;
- Inform decisions being made to ensure there is an appropriate research infrastructure in Ireland, avoiding duplication of facilities available elsewhere; and
- Support the linking of the Irish research system, including industry, with European research and innovation priority policy areas.

## R&D and Innovation Surveys

### Higher Education R&D Survey

Forfás carries out surveys which monitor research and development activities in the higher education sector and the government sector. The higher education R&D (HERD) survey is carried out every two years by Forfás following the OECD Frascati Manual (2002) guidelines and methodology for estimating levels of research and development in the higher education sector. The survey is mandated by the European Commission. Data from the HERD report feeds into wider OECD and Eurostat reports which compare Ireland's results with other EU and OECD countries. The report also forms part of Forfás' ongoing policy advice to the government.

The current report, which was published in December 2010, covers R&D activities in seven universities, thirteen Institutes of Technology, the Royal College of Surgeons and Mary Immaculate College, for the academic year 2007/2008. There are two main components to the survey:

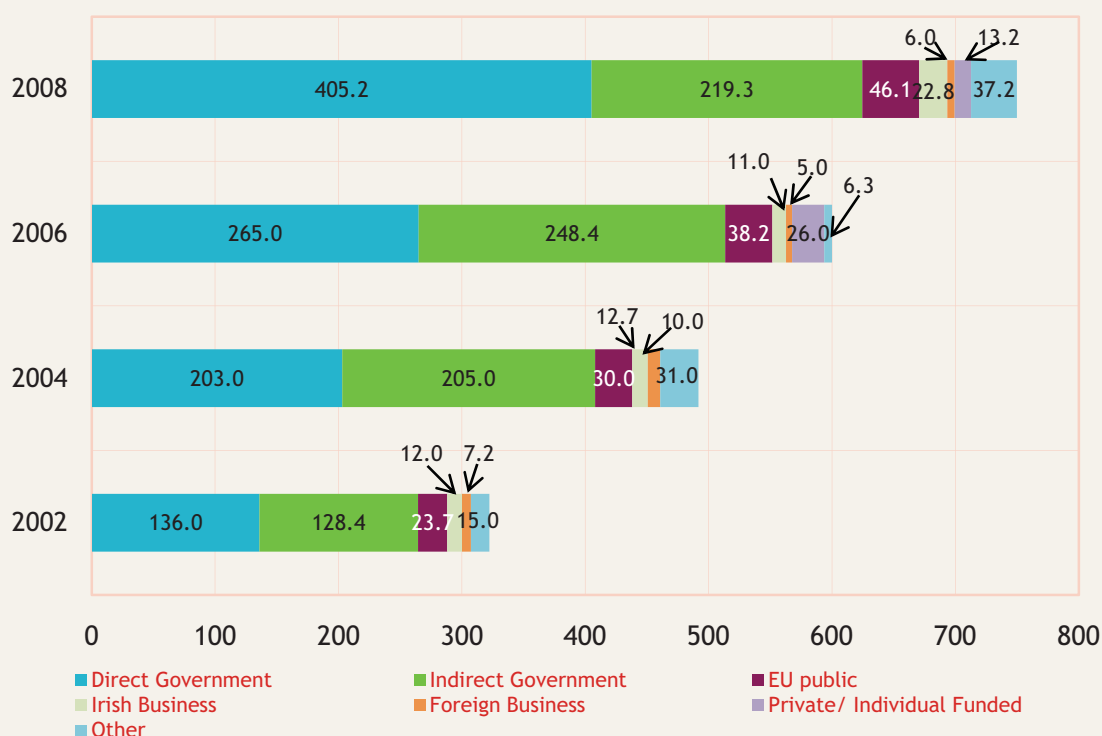
- An analysis of financial data from each institution showing detailed departmental income and expenditure; and

- An analysis of personnel data and time use data based on the amount of research per person employed from each institution and split between male and female to allow gender comparisons.

The key results of the current survey show that:

- Higher education expenditure on R&D in 2008 rose to €750 million, an increase of 25 per cent in current terms or 14 per cent in constant prices since 2006, with direct government funding accounting for €405m (54 per cent) of all research monies (Figure 7). This represents a 53 per cent increase on the amount allocated by Government in 2006.
- Ireland's rank, in relation to expenditure as a percentage of GDP/GNP, relative to 25 other OECD countries, improved steadily since 2002 placing us in seventh place in 2008 from eleventh place in 2006.
- The total number of researchers increased from 10,072 in 2006 to 11,610 in 2008 (up 15 per cent).

Figure 7. Sources of Higher Education Research Funding (€m, Current Prices), 2002-2008

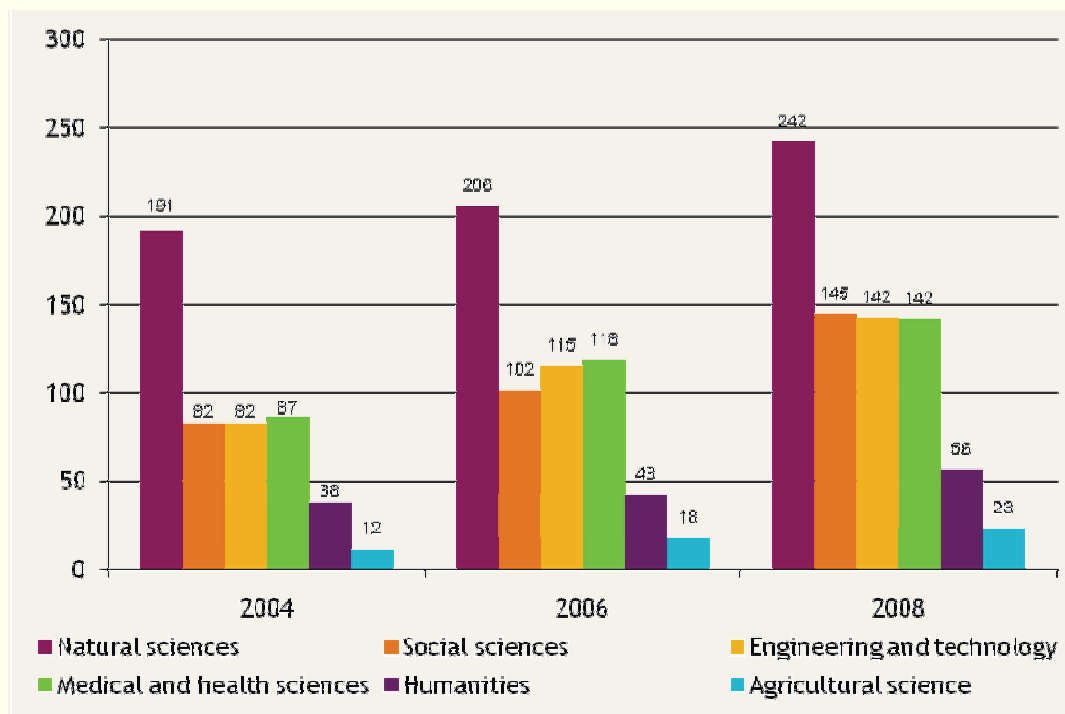


Source: Higher Education R&D Survey 2008

When HERD expenditure is broken-down by field of science (Figure 8), it can be seen that the largest proportion of R&D spend was in the field of natural sciences in 2004, 2006 and again in 2008. The 2008 figure of €242 million shows an increase of 17 per cent over the 2006 figure.

R&D expenditure on social sciences increased to €145 million in 2008, a 42 per cent increase over the 2006 figure and a 77 per cent increase over the 2004 figure of €82 million. Expenditure in the field of engineering and technology increased over the two-year period between 2006 and 2008 by €27 million, while the increase in the field of medical and health sciences was €24 million. Funding for the humanities field of science increased by 30 per cent between 2006 and 2008 and by 13 per cent between 2004 and 2006. Finally, the agricultural sciences gained an additional €11 million in research funding in the last four years which brought the total amount of R&D funding allocated within this field of science to €23 million in 2008.

**Figure 8. Higher Education Expenditure on R&D by Fields of Science (€m, Current Prices), 2004-2008**

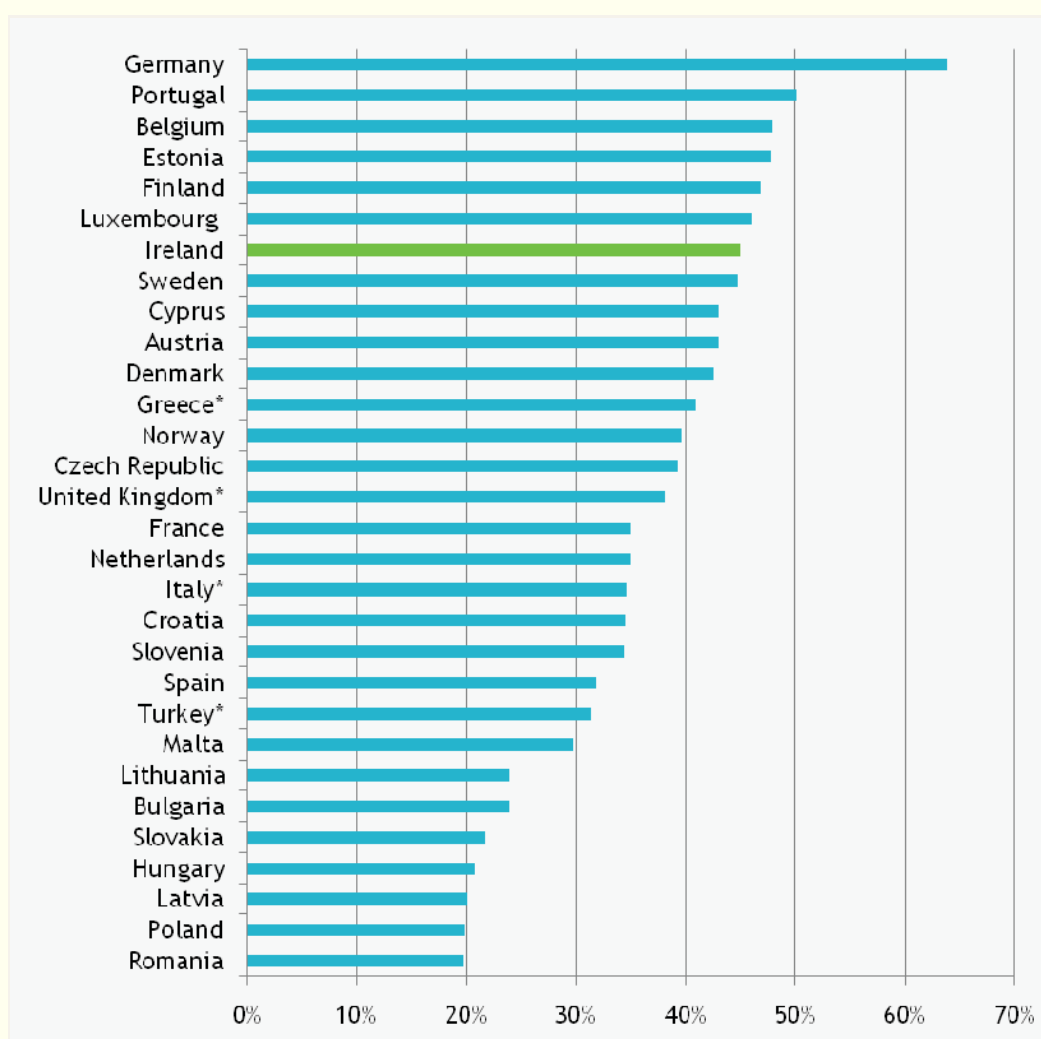


#### Community Innovation Survey 2006-2008

Forfás undertakes the Community Innovation Survey (CIS) with the Central Statistics Office. This is a biennial survey, carried out under Commission Regulation (EC) No 1450/2004 implementing Decision No 1608/2003/EC. Approximately 4,700 businesses in Ireland are sampled using, inter alia, the Business Register. The survey collects information about product and process innovation as well as organisational innovations and other key variables during a three year period, the current survey covering 2006 to 2008 inclusive. Most questions cover new or significantly improved goods or services or the implementation of new or significantly improved processes, logistics or distribution methods. The CIS was previously conducted by Forfás but is now jointly conducted by the CSO and Forfás to increase efficiency in the collection of statistical data and to reduce the burden on the participating enterprises.

The CSO released the 2006-2008 CIS results in June 2010. Forfás then undertook a more in-depth analysis of the CIS. The aim of the work was first of all to establish Ireland's innovation performance at international level, identifying macro-level strengths and weaknesses, before examining in greater detail where in particular these strengths and weaknesses lie. It is intended that the findings arising from the analysis provide the foundation for an evidence base for policy, and provide initial signposts to focal points of innovation policy into the future.

**Figure 9. Technological Innovation Performance (% of Firms, 2008)**



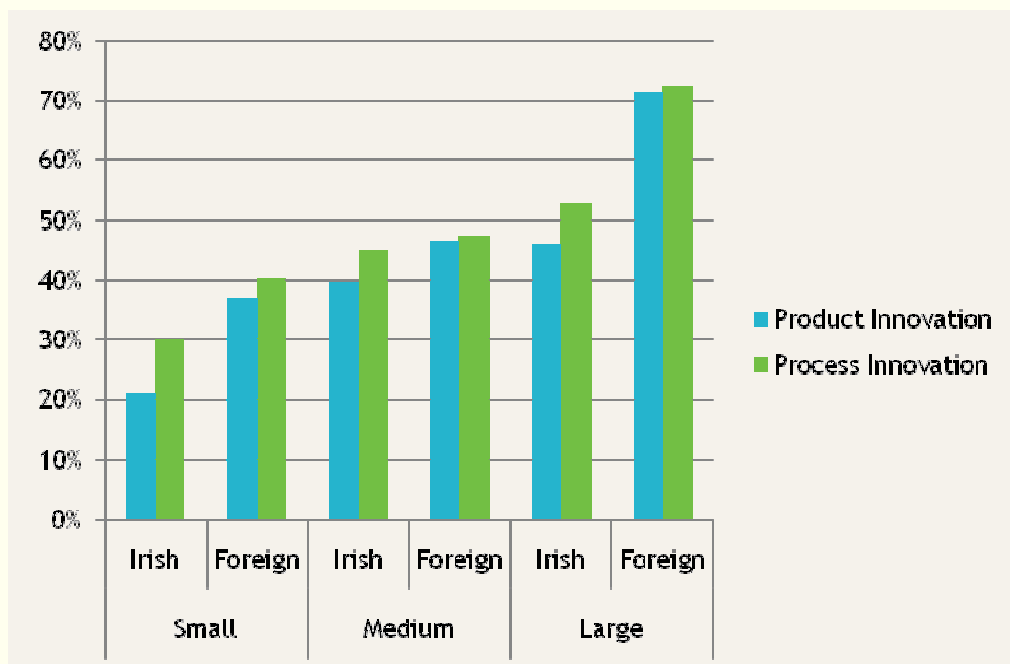
Countries marked with \* denotes 2006 data

Source: Community Innovation Survey 2006 - 2008

Taking enterprises of all sizes into account, Ireland's relative innovation performance at European<sup>9</sup> level is encouraging. In 2008, 44.9 per cent of firms were engaged in some form technological (i.e. product or process) innovation. This was the seventh highest level of all reporting EU-27/EEA/EU accession states (Figure 9). Figure 10 also summarises some key findings of the analysis, including:

- The larger the firm, the more likely it is to innovate. About 40 per cent of small firms undertake some form of innovation, compared to 61 per cent of medium-sized firms and some 76 per cent of large firms. The proportion of small firms that innovate tend to focus more on process innovation (generally less resource intensive) and are overall less likely to engage in more than one innovation mode.
- The proportion of all indigenous Irish firms engaged in some mode of innovation activity is still higher than the EU-27 average. Indigenous firms are less innovative than foreign-owned firms in Ireland. While there are distinct differences in the structure of indigenous and foreign-owned firms in Ireland, it is notable that the indigenous sector is significantly less innovative, and is less likely to effectively collaborate across the range of potential partners, notably universities and publicly funded bodies, than foreign-owned firms based here.

**Figure 10 Modes of Innovation by Firm Size and Ownership (% of Firms, 2008)**



Source: Community Innovation Survey 2006 - 2008

<sup>9</sup> In this section, 'European' comparators are all reporting EU-27/EEA countries, plus accession/candidate states.



## 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. Forfás manages the work of ACSTI and provides it with research and analysis. The ACSTI is appointed by the Board of Forfás.

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.

In 2010 the Council concentrated on the following areas:

- Maximising the Environment for Company Research and Development
- End of Year Statement - Staying the Course
- Contributing to the National Research Prioritisation Exercise

### Maximising the Environment for Company Research and Development

*Maximising the Environment for Company Research and Development* was published by ACSTI in March 2010. The report made a series of recommendations on how to improve the environment for companies to engage in research, development and innovation (RD&I) in Ireland and highlights the continuing need to encourage enterprise to invest in RD&I, which increases the stock of knowledge, and the use of that knowledge for the development of new goods, processes and services. The findings of this report fed into the deliberations of the Innovation Taskforce.

Three overarching barriers which impact the levels of company R&D in Ireland across all enterprise sectors were identified. These are:

- A shortage of high quality industry relevant skills;
- The high cost of R&D; and
- The effectiveness of higher education institutions-enterprise interactions.

The report includes the following recommendations to address these barriers:

- There should be greater involvement by industry in developing postgraduate programmes and this can be achieved through prioritising some of the fourth level funding from PhD programmes towards the development of industry driven masters programmes.
- There should be support for the development of world class masters programmes that are industry relevant, sector specific and in which industry is engaged.

- Industrial postgraduate programmes should be developed, based on the model of the Danish Industrial PhD Programme.
- A competitive financial incentive to attract industrial R&D leaders to work in enterprise in Ireland should be developed based on a review of tax incentives used in other countries.
- Companies should be allowed the option to offset their R&D tax credit against payroll taxes.
- There should be an increase in the incentives and opportunities for connecting people from enterprise and academia. This should be achieved through the inclusion of industrial engagement as an important criterion for recruitment and promotion of academic/research staff in higher education institutions (HEIs).

### End of Year Statement - Staying the Course

The Advisory Council for Science, Technology and Innovation issued an end of year statement highlighting the main areas which need to be addressed to ensure Ireland continues to support research and innovation as key priorities for economic and employment stability and growth. The statement, *Staying the Course*, gives the Council's views on what can be done now to support the research community and the R&D based enterprise sector. These include:

- Further measures to coordinate research and to link academic and industrial research should be investigated.
- Full consideration must be given to our infrastructure needs and how they can best be maintained. National funding for infrastructure and for research and development projects is essential to enable us to remain at the global research table and to leverage our own national funding. As a lynchpin of such research, infrastructure must be maintained and well managed in order to retain its usefulness.
- Measures to embed employability in all emerging graduates should be accelerated.
- Measures outside of the direct research system to enable research excellence, by facilitating mobility of Irish researchers and mobility of top class research into Ireland and other collaborative opportunities, are essential as a means to sustain our economy through science and technology. For example, measures to improve the transfer of pension and social welfare entitlements are required.
- The provision of networking and communication mechanisms which enable industry to be informed about and consider engaging with the research and funding systems are very important. The Council believes that full exploration and consideration of the knowledge transfer partnerships model by government departments and agencies should be a priority for 2011.
- The Council believes that the issue of the recognition of engineering as a discipline in its own right should be pursued. Excellent and creative engineers should be valued for what they deliver to society.
- The major reform now underway through Project Maths should be progressed quickly and supported with the necessary investment.

- The elements of the Teaching Council Acts relating to continuing professional development (CPD) of teachers should be acted upon now and a requirement should be introduced that engagement in continuing professional development is a pre-requisite for maintaining professional registration.

## Contributing to the National Research Prioritisation Exercise

In 2009 ACTSI called for the implementation of a priority setting mechanism to validate the areas or disciplines in which State investment in research should be concentrated. Since the appointment of the Research Prioritisation Project Steering Group in October 2010, ACSTI has been actively engaged in the initiative and three members of the Council were invited by the Minister of Enterprise, Trade and Innovation to join the Steering Group. Further details on the work of the Steering Group are available on page 50.



### ACSTI representation on the Research Prioritisation Project Steering Group

Chairman of ACSTI, Dr Tom McCarthy (centre) pictured with Martin Shanagher, Assistant Secretary, Department of Enterprise, Jobs and Innovation (left) and Dr Alastair Glass, former Deputy Minister of Research and Innovation, Ontario, Canada at a meeting of the Research Prioritisation Project Steering Group.

# 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.

In 2010, Forfás provided advice on key cost competitiveness issues including labour, property, energy and waste management costs, and professional services. Costs continued to fall throughout the year. 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 when the economy starts to grow.

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.

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 analyse trade and investment performance.

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.

## Assessing Ireland's Labour Cost Competitiveness

In 2010, Forfás undertook a review of labour cost competitiveness. The conclusions of this work were published in November and formed part of the Government's consideration on this issue. The Forfás analysis focused on recent labour market developments and the key drivers of labour costs relative to developments in key competitor locations. It identified actions required to improve the efficiency of the labour market, facilitate employment creation and protect real incomes. The report's recommendations highlighted three key areas requiring policy action:

- That replacement rates<sup>10</sup> be addressed as a matter of urgency, to be reduced below the 100 percent mark and ultimately towards the 70 percent benchmark. Budget 2011, published in December 2010, reduced social welfare rates. At the same time, personal taxation also increased reducing take home pay for the majority of workers.
- In parallel, that the collective sectoral wage agreements, Employment Regulation Orders (EROs) and Regulated Employment Agreements (REAs), be reformed to ensure that they contribute to labour market efficiency. The four year Plan for National Recovery commits to a review of the framework for REA and ERO arrangements by the Minister for Enterprise, Trade and Innovation and is part of the agreed EU/IMF Programme.
- Thereafter, the report recommended that other measures such as changes to the national minimum wage be considered, although replacement rates and sectoral agreements represent the primary barriers to labour cost adjustments. The national minimum wage was reduced in Budget 2011 by €1 to €7.65 per hour.

## Addressing Waste Management Competitiveness

The availability of waste management services and facilities and the associated costs continue to be a key competitiveness issue for enterprise in Ireland. Forfás reviewed Ireland's comparative performance across key waste management indicators in 2010 and set out the policy issues that need to be addressed to enable Ireland meet the waste management needs of enterprise.

The benchmarking analysis confirms that, despite positive developments such as improvements in recycling performance and recent reductions in waste generated, Ireland continues to perform poorly relative to a selection of competitor countries/regions in the provision and cost of waste management treatment options to enterprise. In particular Ireland has limited waste management infrastructure options compared with international competitors which is leading to an ongoing heavy reliance on landfill. Irish enterprise needs a range of waste treatment options across the waste management hierarchy and delivering this infrastructure is a key priority. The report also shows that although landfill costs in Ireland have moderated, advertised prices and prices which can be negotiated in the market remain comparatively high.

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<sup>10</sup> Where the difference between the proportion of out-of-work benefits received when unemployed, against employee take home pay if in work, will act as a disincentive to return to the workplace.

Waste policy should have adequate cognisance of the following enterprise priorities:

- **Addressing current regulatory and policy uncertainty in waste management in Ireland:** Policy uncertainty is affecting private investment in necessary waste infrastructure. Key aspects to creating this certainty will be both providing a level playing field for private and public service infrastructure providers and addressing the potentially conflicting dual role of local authorities acting as service/infrastructure providers and as regulators. This should include the rationalisation of the waste regulatory functions of local authorities.
- **National coordination of regional waste plans:** With a view to promoting competition, increasing efficiencies and realising economies of scale, Forfás supports greater coordination of regional waste plans.
- **Improving waste management cost competitiveness:** A number of proposed policy measures have the potential to further damage Ireland's cost competitiveness at a time when Irish companies are struggling to maintain exports, market share and employment. In particular:
  - Applying significantly increased landfill waste levies will increase the costs of doing business further, particularly for those in manufacturing in key sectors such as food and pharmaceuticals, and runs counter to national policy to improve Ireland's cost competitiveness. Forfás recommends refraining from significant increases in the landfill levy in the current economic climate and that any future increase in the landfill levy should reflect the pricing of externalities (environmental and other damage caused by landfill such as remedial treatment costs and emissions) as proposed by the ESRI.
  - Postponing the waste-to-energy levy until a waste-to-energy market is established here and avoiding any volumetric based levies on waste-to-energy.
  - A proposed cap on incineration levels should not be introduced as it stands to inhibit economies of scale which are key to bringing Irish waste costs more into line with our competitors.

## Improving Energy Competitiveness

Energy competitiveness remains an important issue for enterprise development. Ireland's ability to maintain and grow our existing export base and to continue attracting high levels of foreign direct investment is dependent on our capacity to deliver a more secure and sustainable energy supply while ensuring a sustained improvement in cost competitiveness.

Forfás works closely with IDA Ireland, Enterprise Ireland and DETI to ensure that Irish energy policy supports enterprise and competitiveness. During 2010, the development agencies made a number of submissions to key energy consultations to increase awareness of the need to improve cost competitiveness and ensure that enterprise and competitiveness objectives and priorities are reflected in key infrastructure policy and regulatory decisions. Previous work which called for the carbon windfall to be returned to energy users bore fruit in 2010

with the enactment of the Carbon Revenue Levy Act in June<sup>11</sup>. The Commission for Energy Regulation consultation on network charges in August was among the most important consultations in 2010. It resulted in significant reductions in network costs for business users. However, the Public Service Obligation levy for renewables and peat was increased in October 2010. As highlighted in the joint enterprise development agencies' submission to the Department of Communications, Energy and Natural Resources' consultation on the national renewable energy action plan (NREAP), as energy is an important input to the entire enterprise base, we need to find a way to support 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. The development agencies believe that government action to support the development of the renewable energy sector and meet our targets should focus on reforming the regulatory and planning framework. Forfás will continue to work with the agencies and government departments to ensure that measures to bring about sustainable improvements in energy competitiveness are progressed.

## Prioritising Public Capital Investment Programmes for Enterprise

While Ireland has made significant investment in infrastructure in recent years, further investment is required to ensure that critical infrastructure can support economic recovery and enterprise development. Capital expenditure for the period 2011 to 2016 was reduced considerably in the Government's capital review in July 2010. Further significant cuts in the period 2011 to 2014 were announced in the National Recovery Plan in November 2010.

Forfás has undertaken work in 2010 to:

- **Ensure the specific infrastructure priorities of the development agencies are front-loaded:** These priority areas include next generation networks roll out in key National Spatial Strategy gateways and hubs; priority road projects (particularly the N20, N28 and N2/A5); and water services investment (prioritising Athlone, Galway and Letterkenny).
- **Support the coordinated delivery of infrastructure:** A more integrated approach to infrastructure planning is required to promote improved efficiency, effectiveness and competitiveness at minimum cost. In previous submissions to the Department of Finance, Forfás made a series of recommendations on potential coordination measures for infrastructure delivery including:
  - an enhanced role for the Inter-Departmental Committee on Economic Renewal with a standing working group on infrastructure;
  - the development of integrated utility agencies with a national remit. This could include a state telecommunications entity, the NRA developing strategic infrastructure corridors; and single national water company; and/or
  - an enhanced role for local authorities in coordinating the delivery of infrastructure within their areas such as broadband ducting.

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<sup>11</sup> The windfall gains will only accrue until the end of 2012.

- **Promote cost-neutral regulatory measures:** There is significant scope to improve infrastructure capacity and services without the need for additional Exchequer funding. Addressing policy and regulatory barriers is important for the delivery of excellent infrastructure. Some of these barriers include the regulatory framework for public transport; national or river basin district planning for water management; regulatory changes to encourage private investment in broadband and waste; and unbundling the ownership of the electricity transmission grid to Eirgrid.
- **Encourage adaptation to global warming:** Critical pieces of infrastructure such as those that generate and distribute energy and treated water will be impacted by climate change. Owners and public authorities that manage critical infrastructures such as water, flood protection, energy, waste, transport and communications etc., will need to plan to ensure that these pieces of infrastructure are climate resilient. Spatial policies are also an essential means of reducing the negative consequences of climate change. Forfás completed an assessment of the challenge of adapting to climate change, *Adaptation to Climate Change: Issues for Business*, and will seek to ensure that enterprise priorities are reflected in the development of Ireland's National Adaptation Action Framework.
- **Additional measures to manage costs:** Recent falls in the costs of infrastructure projects reflect the difficult economic environment rather than structural improvements in Ireland's cost competitiveness. A range of issues increase the costs of delivering infrastructure, whether through planning delays, institutional inefficiencies or financing difficulties.
- **Stimulate discussion on the potential of smart infrastructure:** Forfás is currently initiating research on the role of smart infrastructure and related services. Given resource constraints, it is vital to get maximum value for money from existing infrastructure and ongoing projects. Increasingly, this can entail making better use of ICT systems to support infrastructure and enable firms and individuals to use that infrastructure efficiently. This work will be completed in mid 2011.

## Developing Next Generation Networks for Enterprise

Next Generation Networks (NGNs) is a term applied to emerging developments in telecommunications in which much higher speeds and quality of broadband service will be widespread. The NGNs typically assume a high capacity platform that is distinct from, but designed for, a wide variety of packet-switched services that were previously separate such as television, internet and telephony, with all these services using the same Internet based protocol. For the user, this will mean a step change in the types and variety of services available, which will be content rich and highly responsive. For enterprise, it will mean the availability of a wide variety of new services and much greater access to business and consumer markets worldwide. It also lowers the barriers to entry and to globalisation of new enterprises. Entertainment, education, healthcare, environmental monitoring, smart infrastructure and traffic systems are just a few of the areas in which enormous opportunities will be enabled by NGNs.

At present, Ireland lags behind competitor countries in NGN implementation. Ireland performs poorly by comparison with many European countries in a key technology for NGN delivery, fibre to the home (FTTH). Access to services and development opportunities for



enterprise are thus significantly constrained. Accordingly in 2010 Forfás continued work on the requirements for FTTH in Ireland, focusing especially on the possibilities for integrating and expanding the state-owned assets in this field and the aggressive deployment of FTTH. Detailed examination of the costs and financing of a new initiative took place, and the work is planned for publication in the first half of 2011.

## Trade and Enterprise Development

### Impact of Currency Fluctuations on Enterprise and Trade in Ireland

Variations in the external value of the euro affect competitiveness in practice and can help or hinder Irish exporters as well as also affecting the attractiveness of Ireland as an investment location compared to other countries. Building on previous work in this area, Forfás expanded the analysis in 2010 to include the US dollar as well as sterling, and a brief examination of exchange rates with our main trading partners. The analysis also reiterated the need for enterprises to include currency considerations in their strategies by summarising ways to minimise the impact of currency exchange fluctuations on Irish traders, including increased diversification to other markets, in particularly eurozone markets.

### Supporting Trade Negotiation

Forfás continues to support the Department of Enterprise, Trade and Innovation (DETI) at the World Trade Organisation and bilateral trade negotiations. In 2010, Forfás provided analysis to DETI on the potential impacts for Ireland of a EU trade agreement with the Mercosur trading bloc, which comprises Brazil, Argentina, Uruguay and Paraguay. The negotiations are significant for Ireland as a small open economy highly dependent on international trade for growth and jobs. The analysis provides data for Government to help assess the sectors on which Ireland should focus during the development of a negotiating position at EU level.

### Trade Data and Analysis

During 2010, Forfás provided trade data and analysis to the Department of Enterprise, Trade and Innovation on its trade and investment relationships with a number of partners and in a number of sectors. Forfás also compiled the booklet *Enterprise Statistics at a Glance 2010*, which brings together data from various sources into a single, accessible format that summarises Ireland's enterprise sector in terms of growth, sectoral structure, employment, investment, trade and other variables.

### Assessing the Impact of the Services Directive

Forfás prepared an update on the impact of the impending Services Directive on the Irish economy, as part of the preparation of a regulatory impact assessment. The *Directive on Services in the Internal Market* is potentially one of the most important and wide ranging economic reform proposals for Europe in recent years. The Forfás report was a refresh of a previous report to take account of the most recent services trade, employment, and national accounts data. In order for Ireland to reap the potential benefits of liberalisation in the services market within the European Union it is necessary to remain competitive, ensure the development of foreign languages and inter-cultural skills, as well as meeting the demands for the skills required in a services economy. The importance of services in modern developed economies cannot be overstated. Services now account for the bulk of economic activity, both in the OECD and in Ireland.

### Participation in the Customs Consultative Committee

Forfás continued its participation in the Revenue Commissioners' Customs Consultative Committee (CCC) during 2010. The CCC is composed of representatives of trade organisations involved in the import/export business and the Revenue Commissioners, and deals with practical questions of trade facilitation and the interaction of businesses with the customs service, including data and reporting requirements.

## National Competitiveness Council

Forfás provides research and analytical support to the National Competitiveness Council (NCC). The NCC was established by Government in 1997 and its membership includes people with relevant expertise in competitiveness, representatives of the employer and trade union social partnership pillars, the Chief Executive of Forfás and a representative of the Department of Enterprise, Trade and Innovation. 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 2010:

- Benchmarking Ireland's Performance 2010
- Ireland's Competitiveness Challenge 2010
- The Costs of Doing Business in Ireland
- Pre-Budget Submission

### Benchmarking Ireland's Performance 2010

The NCC's *Annual Competitiveness Report, Volume 1: Benchmarking Ireland's Performance*, published in July 2010, is a collection of 135 statistical indicators measuring Ireland's competitiveness performance in relation to 18 other economies and the OECD or euro area average. The indicators benchmarked range from measures of the successes of past competitiveness, such as economic growth and quality of life, to the policy inputs that will drive future competitiveness, such as the education system and the delivery of infrastructure. Drawing primarily on data from international sources such as the OECD, Eurostat, UN etc., this report benchmarks Ireland's performance, comparing and ranking it to that of our economic peer group and tracing its evolution over time.

The 2010 report highlights that Ireland has made significant progress in improving our competitiveness in the past 18 months. Costs have fallen, skills availability has improved and the pressures on infrastructure have eased. Nonetheless, the report identified a number of significant weaknesses that were subsequently addressed in Volume 2 of the report, Ireland's Competitiveness Challenge.

### Ireland's Competitiveness Challenge 2010

*Ireland's Competitiveness Challenge*, published in November 2010, focuses on the national competitiveness issues of most importance to the enterprise sector and identifies a series of policy recommendations required to address these issues. The focus of the 2010 report was on repositioning Ireland as a competitive location for doing business in order to support sustainable economic growth and drive job creation. *Ireland's Competitiveness Challenge* builds on the data published in *Benchmarking Ireland's Performance*.

Given the wide range of issues that need to be tackled to support sustainable long term growth, the NCC has highlighted the main recommendations that it believes need priority attention and action.

- **We must put in place the structures, processes and the capacity to support sustainable competitiveness:** This means focusing on productivity enhancement, ensuring fiscal stability, and taking a sector-specific approach to policy development where appropriate. Among the specific recommendations highlighted by the NCC are:
  - **Promoting and delivering economy wide productivity growth:** Higher productivity is the glue which sustains high living standards and competitiveness. There is no part of Government, however, responsible for promoting policies that drive productivity growth. To deliver the required improvements, it is imperative that one department has overall responsibility for prioritising productivity related policy actions, monitoring progress and driving implementation. Improving productivity across all sectors of the economy should be central to future policy and budgetary decisions;
  - **Addressing the specific needs of sectors:** In recent years, the composition of Irish exports has changed considerably. The NCC is concerned that our institutional structures and mindsets towards export opportunities are rooted in the past. We need to ensure that our Government structures better reflect the changes in our economy and can provide the necessary supports to potential high growth sectors; and
  - **Promoting fiscal stability:** There is a need for better fiscal planning and control mechanisms. The Council has recommended the establishment of an independent fiscal council. The proposed reforms to the budgetary process and reference to the establishment of a Budgetary Advisory Council in the National Recovery Plan are key in this regard.



#### The National Competitiveness Council

Pictured at a recent NCC meeting are (r-l): Harry Lorton, Chairman, H&A Marketing + PR; Donal Byrne, Chairman, Cadbury Schweppes Ireland; Adrian Devitt, Forfás; Dr Don Thornhill, Chairman, NCC; Conor Hand, Forfás; and Michael Delaney, Vice President for Development, Cork Institute of Technology.

- **Although it may be difficult to force our gaze away from the most immediate issues confronting us, we must plan for the future:** The NCC recommends that the following actions are prioritised to support sustainable long term growth and prosperity:
  - **Ensure a sustainable tax system:** The NCC believes that broadening the tax base by introducing a valuation based tax on property and user charges for treated water and third level education, is central to repairing the public finances. Without measures to broaden the tax base, taxes on income will inevitably have to rise further, which puts competitiveness at risk. Higher taxes on income are a disincentive to people to remain in or return to the labour market. A competitive tax wedge is also an important competitive advantage in attracting and retaining highly skilled and internationally mobile workers;
  - **Promote indigenous enterprise:** Only through increasing the number of internationally trading indigenous firms and their export intensity (exports as a share of sales) will Ireland be able to create broad based sustainable growth. We must prioritise actions to enhance the export activity of indigenous firms. These include ensuring viable businesses have access to credit, deepening linkages between domestic and exporting firms and diversifying into high growth, emerging markets; and
  - **Improve competition in locally traded sectors:** The NCC is concerned that there is not a strong appetite in Ireland to tackle high costs in sheltered sectors. A systematic approach to ensure that competition law applies to all sectors of the economy is necessary. In this respect, the focus accorded to competition policy in the National Recovery Plan is significant.
- **We must continue to focus on essential competitiveness factors such as skills and education, infrastructure delivery and innovation:** Although Ireland has made significant progress in terms of improving our physical, educational and research infrastructure in recent years, further actions are required. The priorities identified by the NCC include:
  - **Engendering a culture that seeks to be world class at everything we do:** Improving living standards requires that we excel in key areas that impact upon international competitiveness such as policy making, education, infrastructure provision and R&D. Managed properly, the public sector has the capacity to be at the forefront of the adjustment process in the economy in moving to higher levels of productivity growth and innovation;
  - **Prioritising and delivering infrastructure projects offering greatest return:** Given the need to maximise returns from more limited resources, further work is required to prioritise projects that promote competitiveness. With a curtailed public capital programme, a more integrated approach to infrastructure planning and delivery can promote improved efficiency, effectiveness and competitiveness; and
  - **Ensuring the quality of education:** It is vital that the priorities highlighted in the NCC's 2009 *Statement on Education and Training* to further enhance the performance of Ireland's education and training system are progressed immediately. In particular, the NCC reiterates the need for adequate resourcing to enable Irish higher education institutions to equip students with the highest quality of education available. It is also essential that the available resources are deployed in a manner

that provides the best value for money and that there is a continuous process of reform at institutional level to improve productivity.

Many of the key messages from the Competitiveness Challenge report have been reflected in the National Recovery Plan and the EU/IMF programme.

## Costs of Doing Business in Ireland

*The Costs of Doing Business in Ireland 2010*, published in July, analyses our relative cost competitiveness performance across four key business inputs - labour, property, utilities (e.g. energy, water, waste, telecommunications, etc.) and business services (e.g. accountancy and legal services). It also looks at the broader cost environment that indirectly affects the cost of doing business here.

Although prices are moderating, the NCC cautions that further action is required to regain our cost competitiveness. The key findings are:

- Ireland experienced a significant loss in cost competitiveness as measured by the real harmonised competitiveness indicator over the past decade reflecting a combination of an appreciation of the euro against the currencies of many of our trading partners and higher price inflation in Ireland. However, since January 2008, Ireland has regained some of its lost cost competitiveness as domestic inflation remains below that of our main trading partners and as the euro has weakened.
- Although prices in Ireland have moderated in the past year, a range of key business inputs in Ireland remain relatively expensive including property, broadband and legal fees. Improving our relative cost competitiveness requires the cost of doing business in Ireland to fall relative to that of our trading partners. Therefore, falling prices in Ireland do not automatically equate to improvements in cost competitiveness.
- While the costs of many goods and services have fallen significantly in Ireland in the past two years, there are notable exceptions - particularly in locally trading sectors of the economy (e.g. waste water services, legal services, etc.).
- The drivers of falling prices are also important to consider. For example, the gap between the price of industrial electricity for large energy users in Ireland and the euro area average has narrowed significantly from 37 per cent in the second half of 2008 to five per cent in the second half of 2009. However, price falls may not be sustainable as they appear to be largely due to falling international fossil fuel prices and a temporary reduction in electricity prices for large energy users. While these improvements in cost competitiveness are very welcome, continuing progress on longer term structural changes are essential if improvements in cost competitiveness are to be sustained.
- The costs of a range of public and administered services continue to negatively affect Irish cost competitiveness. The cost of health and education services continued to rise rapidly, further increasing the gap between these components and the other goods and services included in the consumer price index. Transport costs, such as urban public transport and taxis, are relatively expensive in Ireland compared with our main trading partners.

Exchange rates have a significant impact on the relative costs of doing business in Ireland. As exchange rates are volatile and outside of our control, it is critical that we concentrate on

those cost factors that are, at least to some degree, influenced by government policy. The NCC continues to highlight the need for structural changes, such as increased competition in the non-traded sectors, to ensure that prices in Ireland will not escalate and therefore erode competitiveness when the economy returns to growth. The NCC continues to work with stakeholders to progress the policy actions required to improve Ireland's cost competitiveness, particularly in locally traded sectors such as utilities and professional services.

## Pre-Budget Submission

The NCC prepared a short submission to the Minister and Department of Finance for Budget 2011. The fiscal actions identified by the NCC to enhance Ireland's international competitiveness were grouped under four headings:

- **Supporting enterprise competitiveness**
  - Maintain a competitive labour tax wedge to encourage labour market participation;
  - Keep people close to the labour market by ensuring that replacement ratios do not weaken incentives to return to work;
  - Review the workings of R&D tax credits to increase the volume of R&D activity taking place here without changing the incentives offered; and
  - Improve the competitiveness of domestic sectors by ensuring budgetary certainty and the delivery of the public capital programme.
- **Raising revenues**
  - Broaden the tax base by introducing a value based property tax on residences; and
  - Introduce user charges to reflect the costs of services provided (treated water, third level education).
- **Reconfiguring expenditure to underpin economic growth**
  - Eliminate tax expenditures that do not support the productive sector such as property based incentives;
  - Review local authority charges; and,
  - Promote e-payments.
- **Improving fiscal policy and delivery**
  - Improve the fiscal planning framework.

A range of these recommendations have been reflected in Budget 2011 including the need to broaden the tax system, eliminate tax expenditure that do not support productive activity, recognition of the need to maintain a competitive tax system and to develop the fiscal planning framework.

# People

## Delivering world class skills for enterprise and upskilling the labour force

Ensuring that enterprises have access to the right skills is fundamental to Ireland's competitiveness. Forfás advises Government on education, skills and labour market policy.

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

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

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 a given time and must therefore be met through inward migration.

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

We provide recommendations to Government to enhance industry-academic collaboration in addressing the skills shortages of enterprise.

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

During 2010, Forfás focused on both immediate, short term measures and longer term projects to ensure that we get people back to work, upskill the labour force and deliver world class skills for Ireland's enterprise needs.



## Informing Government on Labour Activation

Forfás published a paper in March 2010, *Profile of Employment and Unemployment*, which highlighted where unemployment is concentrated and informed the design and targeting of labour market activation measures for Government. The paper included:

- A commentary on available labour market statistics and issues around defining unemployment.
- Overview of broad labour market trends including shifts in employment, labour market participation, educational attainment and employment by sector, occupation and nationality.
- Profile of current unemployment according to characteristics such as age, educational attainment, gender and nationality.
- Employment outlook - short and medium term including skills demands.
- Guiding principles that should underpin policy measures to address rising unemployment.

This paper has helped to inform Government in the targeting of certain labour market cohorts in the development of activation measures. These include the under 35's; the low skilled; young graduates; and those that have lost their jobs in sectors worst affected by unemployment, namely construction, traditional manufacturing and retail. In addition to providing regular updates to the Department of Education and Skills and the Department of Enterprise, Trade and Innovation on the factors impacting on the labour market, over 2010 Forfás also provided them with a range of inputs and technical advice such as updates on movements in earnings and labour costs and advice on the development of employment measures, and labour market activation initiatives.



Forfás presents on Ireland's Future Skills Needs at the 2010 IBEC/Institute of Guidance Counsellors Annual Conference

Pictured l-r: Marian Byron, director of IBEC's Industrial Products and Services Group; Marie Bourke, Manager of the Education, Skills and Labour Market Policy department, Forfás; and Eilis Coakley, President of the Institute of Guidance Counsellors.

## Forfás Guidelines on 2010 Labour Market Activation Fund

In 2010 a new €20 million Labour Market Activation Fund was launched to provide training and activation measures for jobseekers. In March a call for proposals was opened to public, private, community and voluntary sector providers. The fund is specifically intended to assist in the creation of training and education places targeting specific priority groups among the unemployed, namely the low skilled, and those formerly employed in declining sectors - such as construction, retail and manufacturing sectors - with particular emphasis on the under 35's and the long-term unemployed.

Accompanying the Call for Proposals, Forfás identified areas of both sector specific skills needs, informed by skills needs identified by the Expert Group on Future Skills Needs (EGFSN), and some guiding principles for education and training providers responding to the Request for Tenders. A number of performance metrics were outlined which include progression to employment/self employment, progression to training/education and qualifications awarded. This is designed to ensure outcomes of this expenditure could be reviewed and inform similar future initiatives. An additional €12 million of funding was announced in August. Overall, the fund targeted almost 60 upskilling projects for almost 12,000 participants.

## National Strategy for Higher Education

In February 2009 the then Minister for Education and Science launched a process to develop a new National Strategy for Higher Education in Ireland by a High Level Group under the Chairmanship of Dr Colin Hunt.

Throughout 2009 and into 2010, Forfás provided research support, together with the Higher Education Authority and the Department of Education and Science, to the Strategy Steering Group. The Group developed a vision and related set of national policy objectives for Irish higher education for the next 20 years with more focused targets for the sector for the next five years.

In Forfás' submission to the Higher Education Strategy Group, Forfás proposed the following high level objectives for higher education:

- A quality mass higher education system that meets the needs of the individual;
- A higher education system that contributes to societal and cultural development and makes Ireland an attractive place to live and work; and
- A higher education system that supports the development of enterprise and the economy through the delivery of relevant skilled individuals and relevant quality research.

In January 2011 the strategy was launched and it proposes the transformation of Ireland's higher education sector over the next two decades. The National Strategy for Higher Education to 2030, sets out changes for the sector that are aimed at providing for:

- a more flexible system, with a greater choice of provision and modes of learning for an increasingly diverse cohort of students;
- improvements in the quality of the student experience, the quality of teaching and learning and the relevance of learning outcomes; and

- ensuring that higher education connects more effectively with wider social, economic and enterprise needs through its staff, the quality of its graduates, the relevance of its programmes, the quality of its research and its ability to translate that into high value jobs and real benefits for society.

The strategy recommends a number of significant structural changes that are aimed at supporting these objectives, including:

- having a smaller number of higher education institutions of greater strength, critical mass and governed according to international best practice;
- providing for the establishment of Technological Universities;
- restructuring and strengthening the Higher Education Authority;
- providing for a sustainable system of funding to allow for further growth and development;
- changing the funding model used to allocate resources to and within institutions to ensure all students, whether full-time or part-time, on-campus or off-campus, be supported equally;
- ensuring that public funding is more aligned to national priorities and needs;
- ensuring a more performance oriented system, with much more transparent flows of data;
- requiring greater interaction between our higher education and enterprise sectors; and
- ensuring much greater assessment of the wider outcomes and impacts of the higher education sector, together with strengthened accountability for institutions according to agreed performance contracts.

## Advice on Economic Migration Policy

Forfás provides ongoing advice to the Department of Enterprise, Trade and Innovation on economic migration policy. Advice in 2010 primarily centred on identifying labour market trends and skills shortages for experienced people in certain occupations, informed by the Expert Group on Future Skills Needs' analysis in the *National Skills Bulletin*. The Department in turn, used this input to determine those categories of occupations which were deemed eligible for Green Cards and Work Permits.

In addition to labour market updates, Forfás continued to provide input into the Department on a number of economic migration issues as required, including the opening up of labour market access to States on their accession to the European Union.

## 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 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
- Influencing and monitoring implementation

During 2010, the EGFSN continued to work with stakeholders to ensure that key labour market data was disseminated to all relevant parties.



### Members of the EGFSN

Pictured l-r are Anne Forde, Principal Officer, Department of Education and Skills; Ned Costello, Chief Executive, Irish Universities Association; and Tony Donohue, Head of Education, Social and Innovation Policy, IBEC.

The following activities were undertaken by the EGFSN in 2010.

## Future Skills Needs of Enterprise within the Green Economy in Ireland

The green economy has been identified as an area of potential business and employment growth across many countries. The sector includes companies created specifically to service the environmental goods and services market as well as those within more traditionally defined sectors, such as engineering, that are diversifying in response to growing market opportunities.

The EGFSN report, *Future Skills Needs of Enterprise within the Green Economy in Ireland*, was published in November 2010. Six sub-sectors, identified as having business and employment growth potential, are included in the study. These are: renewable energies; efficient energy use and management; water and waste water treatment; waste management, recovery and recycling; environmental consultancy services; and green ICT applications and software. Approximately 18,750 people are employed in these six sub-sectors. The market size of the sector in Ireland is estimated at approximately €3.04 billion.

The report contained a number of specific recommendations for the sector within the following broad areas:

- Aligning education and training with the skills needs of enterprise
- Developing managers' export marketing and sales skills to support increased export growth
- Focusing education and training provision on the development of core engineering skills with emerging areas such as wind, wave, solar and geothermal as specialisations on top of the core qualification
- Developing technicians' skills capability
- Developing skilled workers capability
- Developing operative skills in areas such as retrofitting, anaerobic digestion and customer service
- Building up expertise within specific universities or colleges for the design of new modules and qualifications. These modules should then be shared within the education system
- Providing well structured internships and graduate placement opportunities
- Communicating attractive career opportunities on offer within the sector
- Enhancing mathematical and science skills of the workforce

There are strong global and domestic drivers of change positively impacting on this sector, however challenges exist which need to be addressed to enable the sector's growth potential to be realised. If substantive progress to address these challenges were made, it is anticipated that around 14,500 employment opportunities would arise over the next five years, with much of the demand being for higher-skilled staff.

## Future Skills Requirements of the Biopharma-Pharmachem Sector

The biopharma-pharmachem sector in Ireland employs 25,300 people directly, approximately 24,000 people indirectly in support services to the industry and contributed more than €1 billion in corporation tax in 2008. The industry exported products to the value of €38.2 billion in the same year. Provisional figures for 2009 indicate that exports rose to €42.2 billion, representing 50% of total goods exported.

The EGFSN report *Future Skills Requirements of the Biopharma-Pharmachem Sector*, published in November 2010, assesses the demand for skills in the sector in the period 2010-2015, and identifies what actions needed to be taken to ensure that the supply of these skills is available to drive the future growth of the industry in Ireland.

The study recommends a number of specific actions to address the sector's skills requirements:

- Strengthen business skills considered essential for companies in the sector to develop and compete internationally including management development skills;
- Align education and training provision with the needs of a changing industry
- Develop structured masters and PhD programmes, combining research with taught modules
- Develop a standardised student work placement of at least 6 to 9 months
- Address the strategic development of the pharmachem sector by providing dedicated research and training
- Introduce post-graduate programmes to address skills gaps in process development
- Develop an operative upskilling programme.

The biopharma-pharmachem sector is currently facing significant global challenges. Cost pressures, patent expirations, the rise of competition from generic drugs, a shrinking research pipeline, an increasingly global market, biotechnology, technological advances and converging technologies, increasing and changing regulation, and mergers and acquisitions are the key drivers of change that are fundamentally altering the structure of the industry. An appropriately skilled workforce will be an important ingredient to meet these challenges.

The report concludes that employment in the 2010-2015 period is projected to be static, with a changed occupational structure. It is anticipated that the number of operatives in the sector will fall from 20 per cent of the occupational distribution currently to 10 per cent in 2015, with almost the equivalent number of potential job gains for scientists, engineers and business analysts.

## Recognising Prior Learning and its Role in the National Skills Strategy

Recognition of prior learning (RPL) is the process of formally recognising the knowledge, skills and competencies of a person howsoever acquired, be it through formal education or training, informal learning or through work and life experience. In 2010, the EGFSN considered the role that RPL could play in progressing the upskilling targets of the National Skills Strategy. A policy paper was prepared by the EGFSN research and analysis team in

Forfás with significant input and material from the National Qualifications Authority of Ireland (NQAI) Executive.

A wide range of stakeholders were consulted in the process including education and training providers, unions, qualifications bodies, guidance and adult education organisations, the Department of Education and Skills, and employer organisations. The growing emphasis on lifelong learning and upskilling in Ireland and internationally has given increased prominence to the potential of RPL as a mechanism that can contribute to a range of social and economic goals including:

- Labour Market Activation - the need to reduce unemployment, particularly the long-term unemployed and those with relatively low levels of qualifications as outlined in the National Skills Strategy Implementation Statement 2010 published by the Department of Education and Skills.
- Effective and efficient use of resources - the need to utilise education and training resources as effectively as possible at a time of unprecedented demand.
- Upskilling/reskilling - the need to continue to upskill the labour force (employed and unemployed) as other countries continue to do so, and facilitate access and participation in lifelong learning.
- Flexible delivery - the need to provide an education and training service for people and enterprises that is flexible, relevant and appropriate to their needs.
- National policy targets - contribute to targets to increase retention/participation rates in education and training, driven by the National Skills Strategy, the National Plan for Equity of Access in Higher Education and the National Plan for Social Inclusion.



#### Informing the Department of Education and Skills

Chairperson of the EGFSN, Una Halligan (left) and Marie Bourke, Manager of the Education, Skills and Labour Market Policy Department, Forfás pictured with Minister of State for Training and Skills, Ciarán Cannon, TD.

There is evidence that many lessons and experiences have been gained from practice of RPL in Ireland across a range of sectors and education and training institutes, however, a more coordinated national policy approach, driven by the Department of Education and Skills, is required.

The report, published in March 2011, includes detailed recommendations targeted at relevant stakeholders to drive RPL for specific target groups of learners across the National Framework of Qualifications.

## Aligning Education and Training Needs

The EGFSN developed a policy discussion paper as input to the Department of Education and Skills' Upskilling Coordination Group and as guidance to education and training providers during 2010. The objective of this paper is to monitor progress towards the upskilling targets of the National Skills Strategy and to assess the alignment of education and training with enterprise skills needs. The paper focuses particularly on progress towards the National Skills Strategy target to upskill 500,000 people within the labour force by at least one level on the National Framework of Qualifications.

In addition to the National Skills Strategy upskilling targets, there is also a policy objective to ensure that output from higher education, further education and training is aligned with future skills needs of the economy. An analysis of the available offerings from further education and training providers and higher education; a profile of those participating in higher education, further education and training; and an overview of the fields of learning and disciplines that people are engaging in are included in the paper.

The paper also highlights a number of policy implications including:

- Questions regarding whether the balance of education and training provision is right in terms of enabling people to re-enter the labour market, equipping those that are unemployed to re-enter the labour market, and addressing enterprise needs for increasing skills requirements.
- Consideration of a wider offering of traineeships covering a broader range of sectors and occupations in line with future skills needs similar to the UK apprenticeship system.
- The importance of strong links between the higher education system and industry to address skills shortages where possible and enhance the employability of graduates.
- Consideration of an assessment to determine whether awards received through further education and training are enabling people to effectively progress to higher education.

The paper was presented to the Minister for Lifelong Learning at the June 2010 meeting of the Upskilling Coordination Group to assist in guiding labour market activation measures and to guide education and training providers in aligning programmes with skills needs.





### EGFSN working with stakeholders

Pictured at a recent EGFSN Board meeting is Dermot Mulligan, Assistant Secretary, Department of Education and Skills with Jasmina Behan, Skills and Labour Market Research Unit, FÁS

## Implementation of EGFSN Recommendations

### Future Skills Requirements of the Food and Beverage Sector

The steering group for the report *Future Skills Requirements of the Food and Beverage Sector*, published in November 2009, was reconvened in May 2010 to review progress on the implementation of the recommendations in the report. Progress was reported as follows:

- The Department of Agriculture, Food & Fisheries had secured funding of €9.5m in the 2010 budget that has allowed Enterprise Ireland, Bord Bia and Teagasc to implement the upskilling programmes recommended by the Expert Group in the areas of management development and supply chain management.
- In the case of supply chain management, Enterprise Ireland has begun rolling out supports to SMEs which includes programmes in lean techniques.
- Bord Bia has initiated a programme with UCD to address a gap in market knowledge in target retail markets.
- On management development, Enterprise Ireland is launching a Leadership 4 Growth programme targeted at food companies and will continue to include food companies in its Transform Programme.
- Interventions to improve commercial acumen in the food sector are also being rolled out by Bord Bia and Teagasc which include a diploma in marketing management aimed at middle management in SMEs and a management development programme.

### Upskilling Workers in the Food and Beverage and Wholesale and Retail Sectors

The EGFSN reports on the food and beverage industry and the wholesale and retail sector, both published in 2009, emphasised the importance of training and development for workers in these sectors, particularly given the low levels of educational attainment prevalent in both sectors. Individuals identified in the food and beverage sector and wholesale and retail sector with a primary or lower secondary education number approximately 64,200. These employees are ill equipped to meet the competitive challenges faced by these sectors,

making their continued employment vulnerable. It is therefore important to upskill this cohort, whilst acknowledging that many have gained specific on-the-job skills outside the formal education and training system.

In 2010 the EGFSN made a submission to the Department of Education and Skills on the basic workplace skills of both sectors. The report recommended that FÁS should deliver the required upskilling, however, as FÁS no longer has a budgetary allocation for this training, other options to deliver this training need to be explored. The EGFSN considers that the Workplace Basic Education Fund may be one vehicle to improve the basic workplace skills of those in the food and beverage and wholesale retail sectors. The EGFSN proposed that an allocation be made to upskill this cohort within the fund's 2011 budget and thereafter until significant inroads are made to enhance the basic education needs of employees in these sectors.

### **Raising National Mathematical Achievement**

In December 2008 the EGFSN published *Raising National Mathematical Achievement*. In the statement, the EGFSN highlighted the critical importance of mathematics for our economy and the need for a focused and long term approach to improve the quality and numbers of our mathematical achievement. Several complementary policy proposals were made by the Expert Group with the aim of increasing the level of our national mathematical achievement.

The 2006 *Review of Post-Primary Mathematics* by the National Council for Curriculum and Assessment resulted in proposals for Project Maths. In 2009, the then Minister for Education and Skills established the Project Maths Implementation Support Group, the EGFSN Head of Secretariat was requested to participate on the Group. The report of the Project Maths Implementation Support Group was published in June 2010. This report sets out a range of recommendations on:

- promoting positive attitudes to mathematics and encouraging more students to consider careers in this area;
- adding value to Project Maths through partnership with industry and higher education institutions; and
- encouraging increased take-up of higher level mathematics in schools.

In October 2010 the universities and institutes of technology announced that 25 bonus points for students taking Leaving Certificate higher level maths are to be introduced from 2012. Both the EGFSN and Forfás welcomed this development and have recommended that this initiative should now be supported by the other complementary measures highlighted in *Raising National Mathematical Achievement* including the professional development of teachers at both primary and secondary level and the development of a more interactive approach to teaching maths as Project Maths is rolled out nationally.

## Collaboration with FÁS Skills and Labour Market Research Unit

During 2010, Forfás continued to work closely with the Skills and Labour Market Research Unit (SLMRU) in FÁS. In 2010 FÁS published two reports on behalf of the EGFSN:

- The *National Skills Bulletin 2010*, providing a statistical analysis of the employment data for all the main occupations in the economy; and
- *Monitoring Ireland's Skills Supply 2010 - Trends in Education and Training Outputs*, providing an indication of the supply of skills to the Irish labour market from the formal education and training system by examining outflows from the system.

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 2010 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.

# Sustainability

## Contributing to environmental sustainability and identifying opportunities for enterprise

Forfás works to ensure that Ireland achieves economic gains without our enterprise activities impacting negatively on the environment, our competitiveness is not compromised and that we are well positioned to take advantage of emerging opportunities.

We undertake research and policy analysis on critical environmental policy of relevance to enterprise using an evidence-based approach in order to optimise the enterprise position on policy matters of national interest. We do this through active participation in national expert groups on climate change and in assisting in international negotiations on future climate change policy to which Ireland will be a signatory.

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

We identify the opportunities for enterprise in the emerging green economy and provide ongoing research and analysis support to the High Level Group on Green Enterprise.

It is critical that a high degree of policy foresight is achieved in the sustainability area so that Ireland can negotiate a fair deal on future environmental targets - one which balances opportunities for the green economy while not adversely impacting on the enterprise sector's cost base and on Ireland's national economic competitiveness.

## Assessment of Progress on the Recommendations of the High Level Group on Green Enterprise

The High Level Action Group on Green Enterprise published its report *Developing the Green Economy in Ireland* in November 2009, containing 55 recommendations that needed to be addressed to capitalise on the opportunities afforded by the green economy. The Group recommended that an annual report be developed on how implementation of the recommendations was progressing. Throughout 2010, Forfás worked with the Department of Enterprise, Trade and Innovation to assess progress on each of the recommendations of the Group. An annual progress report was published in March 2011. The key messages of this report are:

- The green economy is growing and remains an important area of opportunity for Ireland.
  - Current employment in six key sectors of the green economy<sup>12</sup> is estimated by Forfás and the Expert Group on Future Skills Needs to stand at 18,750. If key barriers are immediately addressed, employment is predicted to rise to 29,000 in these six sectors by 2015.
  - Significant public investment is continuing to support the green economy.
  - In the region of 2,000 green related jobs have been announced in the 12 months from October 2009 to October 2010. This excludes jobs related to publicly funded retrofitting programmes, which the Department of Communications, Energy and Natural Resources estimate are supporting more than an additional 5,000 jobs.
- Progress is being made in implementing the recommendations of the Group's report. As an overview, of the 55 recommendations made in the report:
  - 16 recommendations (29%) are completed or important progress is being made.
  - 21 recommendations (38%) have been progressed to a reasonable extent, but further implementation is desirable.
  - 18 recommendations (32%) require further attention to be substantially progressed.
- Key recommendations of the Group which are being implemented include: grid enhancement, water services investment, introducing electric cars, introducing regulations promoting biological waste recycling, supports for bio-energy and a range of demonstration projects being actively supported by the Sustainable Energy Authority of Ireland.
- A number of key recommendations of the Group remain outstanding. Given the extent of international competition in the sector, urgent implementation of the following priority recommendations is required to fully realise job growth in the green economy:
  - Developing a coherent national approach to the “common good” message in electricity grid development.

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12 These six sectors are: Renewable Energies; Efficient Energy Use and Management; Water and Waste Water Treatment; Waste Management, Recovery and Recycling; Environmental Consultancy and Services; and “Green” ICT Applications/ Software.

- Continuing to market Ireland's "green" image internationally, particularly through the Government's new Trade, Tourism and Investment Strategy.
- Developing an integrated efficiency programme encompassing energy, water and waste which can help companies reduce their resource usage.
- Addressing key issues for the waste sector which can provide certainty for investment. These include regulatory certainty for waste collection and treatment, developing recycling infrastructure and addressing barriers to the all-island recyclables market and composting/anaerobic digestion services.
- Progressing the Group's green R&D recommendations on pooling of research expertise, developing research alliances, consolidating R&D funding programmes and developing an R&D strategy for the overall green and cleantech sector.
- Addressing barriers to micro-generation of renewable energy, in particular the Single Premise Rule.
- Accelerating foreshore licensing for offshore energy projects.
- Developing and marketing Ireland's potential as a green IFSC.
- Maximising business opportunities and synergies between water and energy sectors in the national smart meter roll out programme.
- Developing and implementing a Green Public Procurement Action Plan immediately which will meet the EU target of 50% green procurement by 2011.

### Adaptation to Climate Change: Issues for Business

Credible international scientific evidence has confirmed that human activities have begun to modify our climate and that such change will have significant social and economic implications. An effective response to climate change must combine both mitigation - avoiding the unmanageable - with adaptation, managing the unavoidable. In 2010, Forfás published *Adaptation to Climate Change: Issues for Business*, which assessed the key enterprise issues arising from climate change for each of the key sectors of Ireland's enterprise base. This report is now feeding into emerging policy responses to climate change adaptation at a national level and its key messages are:

- **A changing climate can impact on business:** While not all business sectors will be equally impacted, these climate changes will impact on Irish businesses through changing markets, impacts on premises and processes, increased vulnerability of supply chains and may have implications for investments, insurance costs and stakeholder reputation.
- **Climate changes can bring business opportunities as well as risks:** As Ireland is expected to be relatively less affected by climate change than a number of key global trading partners/competitor countries. Properly managed, Ireland can have competitive advantages through access to significant water resources, an ongoing temperate climate etc.
- **There are likely to be costs for businesses and the economy from climate change:** Climate changes can cause property damage, inability of workers to access work, water

shortages, impacts on water quality and power outages. On an ongoing basis such impacts can have persistent negative impacts on economic growth.

- **Business planning will be central to realising potential opportunities and minimising risks:** Planning ahead by businesses can reduce costs and help realise opportunities. At present, many Irish businesses are not including climate risks or opportunities into their business planning.

The report made recommendations to promote:

- Building awareness and capacity amongst these businesses of climate risks and opportunities which will be central to ensuring successful business adaptation in Ireland.
- Climate proofing of critical pieces of business infrastructure by owners and public authorities.
- The development of a policy framework and regulatory structure which can minimise climate risks and realise potential opportunities for businesses in Ireland.

## Long-Term Energy Policy: The Energy Tetralemma

One important aspect of energy policy is the choice of fuel. Each type of fuel (e.g. coal, wind power, oil etc.) has its advantages and disadvantages. For Ireland, the impact on climate change, the security of supply, the sustainability (in terms of resource availability) and the effect on competitiveness are four key and sometimes conflicting considerations in energy policy - a “tetralemma”.

In 2010, Forfás completed and published a major analysis of long term energy policy from this perspective to provide a framework for policy makers in assessing fuel choices for Ireland in the long term. It involved the construction of an analytical framework and the quantification of the relationship between eleven fuel types and the four policy priorities as listed above. This quantification in turn required the generation of scenarios covering three time periods out to 2030. For the treatment of competitiveness, the distinction was also made between immediate cost competitiveness and the longer term opportunities that might be created for the enterprise sector by particular fuel choices. The publication contains a full description of the structure and assumptions of the tetralemma framework, together with an examination of the enterprise implications and detailed reports on the eleven different fuel types, from the perspective of Ireland’s long-term policy requirements.

Decisions made now will have far reaching enterprise implications into the future. The research and analysis in the *Irish Energy Tetralemma* provides a framework for policy makers in assessing fuel choices for Ireland in the long term.

## Ongoing Research and Policy Advice to the Department of Jobs, Enterprise and Innovation Environment Unit

Forfás continues to provide research and policy analysis support to the Department of Jobs, Enterprise and Innovation (DJEI) Environment Unit on environmental and sustainability policy

matters for the enterprise sector using an evidence-based approach. Key policy areas in 2010 included:

- **Inputs to the development of a national Climate Change Bill.** Climate change legislation has been on the legislative agenda for over 12 months. Through the Senior Officials Group and other fora, Forfás has continued to provide enterprise policy inputs at each stage of the process. In addition, Forfás developed a response to the public consultation process on a draft Climate Change Response Bill which was opened by the Department of Environment, Heritage and Local Government (DEHLG) in December 2010. These inputs centred on the need for the Bill to:
  - Focus on Ireland's existing international emissions targets rather than setting higher unilateral targets.
  - Provide for strong business and competitiveness expertise on the Expert Advisory Body proposed by DEHLG.
  - Minimise administrative and cost burdens to business which could arise from implementation of the Bill.
- **EU policy on benchmarking methodology for the EU Emissions Trading Scheme (EU ETS).** This involved the ongoing monitoring of EU policy developments on the allocation of permits in the EU ETS based on a benchmarked approach (which replaces the grandfathering arrangements of Phases I and II of EU ETS) and formulation of the best policy position for Ireland.
- **EU policy on auctioning of carbon emissions allowances.** Forfás engaged in ongoing monitoring of EU policy developments on auctioning of permits in the ETS and the formulation of the best policy position for Ireland.
- **International Climate Change Negotiations.** 2010 saw ongoing attempts to reach an international agreement to limit the impacts of climate change. Forfás has continued to monitor and provide inputs to Ireland's negotiating position on the specific implications for the existing enterprise base in Ireland arising from these international climate change negotiations - most recently at Cancun, Mexico in December 2010.

## Representation and Submissions on Environmental and Sustainability Policy

Forfás participates in meetings of the Senior Officials Group on Climate Change and Energy Security. Forfás is also a permanent member of the EPA coordinated National Allocation Advisory Group for the EU ETS, and is a member of both the cross departmental Technical Analysis Steering Group and cross departmental Preferred Policy Measures Group. Forfás also sits on the EPA Climate Change Research Committee (Socio-Economic Working Group).

In addition, Forfás made a range of submissions on enterprise issues arising in sustainability policy developments throughout 2010. These included:

- Submission on a National Sustainable Transport Strategy
- Submission on a National Sustainable Development Strategy
- Submission on a Smart Ocean Energy Strategy



- Submission on a Domestic Carbon Offsetting Scheme for Ireland
- Submission on the Review of the EPA

# 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 is managed by Forfás and brings together many science and engineering awareness activities that were previously managed by different public and private bodies.

## 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 2010 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. Science Week 2010 adopted the theme of "Our Place in Space", tying in with the newly established European Space Education Resource Office (ESERO) in Ireland which DSE is providing in partnership with the European Space Agency (ESA). A record 505 events (115,000 participants) were held nationwide in schools, colleges, universities and libraries. As part of its overall coordination role of Science Week, DSE provides roadshows to venues across the country and in 2010 more than 80 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, space-themed activities, feature articles, a photo gallery and footage from the Science Week Lecture Series.

The Lecture Series, which was aimed specifically at second level students, took place in the Science Gallery and the Royal Irish Academy in Dublin and the topics included "Did We Really Land on the Moon?", "Saturday Night Science", "The Story of Sugru" (an innovative new silicon based product), and "Will the World End in 2012? - The Astronomical Evidence".

The Science Week Corporate Partners Programme continued to grow in 2010 with companies from various industries 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, 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 2010. 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, STEPS of Engineers Ireland and the Sustainable Energy Authority of Ireland (SEAI). 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.

### **BT Young Scientist and Technology Exhibition**

Discover Science & Engineering was a Silver Sponsor of the BT Young Scientist and Technology Exhibition which was held in January 2011. Project planning and organisation for the event took place in the last quarter of 2010. This year DSE hosted an interactive maths workshop aimed at primary school children and also sponsored a maths award in the main competition.

### **DSE Online**

Social media channels such as Twitter and Facebook continued to play an increasingly important role in effectively reaching DSE's target audience in 2010, particularly in relation to Science Week, during which DSE engaged with not only the general public, but also with other partner organisations and stakeholders, such as the Institutes of Technology, the library authorities and county councils. The value of rich content such as video was also apparent, giving the audiences a reason to engage with the programme online.

DSE continues to encourage young people and teachers to use ICT for learning and communicating science, for example by making learning resources available on the Greenwave website ([www.greenwave.ie](http://www.greenwave.ie)) where teachers and students can carry out data logging activities in tracking the arrival of spring across Europe. The Project Blogger site continues to make blogging tools available to teachers and students working on science projects such as SciFest and the BT Young Scientist & Technology Exhibition.

### **Discover Science Careers**

Discover Science & Engineering continues to expand its Science Ambassador programme, profiling 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). This website is a useful resource for career guidance counsellors, parents and students with everything from profiles on famous Irish scientists, to explanations of the different career types and a career glossary. DSE also continues to work with [www.careersportal.ie](http://www.careersportal.ie) in promoting science and technology content.

## Primary Level Science

### Discover Primary Science and Maths



In 2010, the existing Discover Primary Science programme changed its name to Discover Primary Science and Maths to reflect the new maths elements of the programme. The programme works directly with teachers and students to develop scientific skills through interactive science based activities. All future activities will now include a maths element.

#### Teacher Training

Following the outstanding response DSE received to providing whole school teacher training after school hours during the 2009/2010 academic year where over 700 teachers were trained, this academic year 2010/2011 saw a further 600 teachers trained in the Discover Primary Science & Maths (DPSM) Programme with a waiting list already in place for the 2011/2012 year.

#### Teacher Education College

Following the success of a pilot elective science module for teacher education in Froebel College in March 2010, DSE has now extended this project to Marino College where an open day was held in January 2011 and over 90 students were trained in the DPSM hands-on activities. Mary Immaculate College in Limerick are also planning a training day for their 2<sup>nd</sup> & 3<sup>rd</sup> year students later this year.

#### Website

A new section has been added to the DPSM website, [www.primaryscience.ie](http://www.primaryscience.ie), to encourage junior classes (4-8 years) to partake in hand-on enquiry based science and maths activities, following feedback from teachers during this academic year 2010/2011. All activities for the website have been developed and tested along with the help of schools throughout Ireland.

A new game was also launched for children to play online called "Space Shaper".

Additionally, Abbott Ireland began sponsorship of the new "Science At Home" section on the website.



#### Awards of Science and Maths Excellence 2010

Pictured l-r are 4th class pupils Kelsey Muresan (11) and Chloe Judge (10) at Gardiner Street National School, Dublin at the launch of the DSE Awards of Science and Maths Excellence in February 2010.

#### Awards of Science & Maths Excellence

A total of 498 primary schools were successful in achieving an Award of Science & Maths Excellence in 2010. Schools are required to submit a log demonstrating completion of a series of science and maths “steps” including activities directly related to the Social, Environmental and Scientific Education (SESE) curriculum, attending a science event such as the BT Young Scientist and Technology Exhibition and hosting a science event in the school. A new fifth step was added to the original four steps to introduce the space element of the programme in 2010.



#### Greenwave

##### Greenwave.ie

The Greenwave project is targeted at primary school children and involves the observation and recording of six identifiers of spring arriving into Ireland. The observations are logged and recorded online by primary schools throughout the country. Schools also have the option of recording temperature and uploading the readings onto the website. By making an anemometer and rain gauge and entering these recordings onto the website they are covering the “design and make” aspect of the SESE curriculum.



### Greenwave

Students from Scoil Aonghusa in Tallaght, Dublin celebrate winning the best photograph competition in Greenwave 2010.

### Greenwave Going European

Since late 2010, the Greenwave project has expanded across Europe thanks to funding from the Fibonacci Project which is an EU Framework Programme 7 project. The *Greenwave Europe* project is a mass science experiment for selected primary schools around Europe. Students and teachers have the opportunity to register on the [www.greenwave-europe.eu](http://www.greenwave-europe.eu) website enabling them to record sightings of and upload photographs of the various common species throughout Europe.

Schools also have the option of measuring the temperature on a daily basis as well as making a rain gauge and anemometer and uploading this information onto the website also. The results are then mapped and analysed to see if spring moves from south to north across Europe or from west to east, etc.

The Greenwave project is a practical way to support the teaching of the “plants & animals” strand of the curriculum. Students have the opportunity to develop the following skills: observing; classifying; recognising patterns; estimating and measuring; recording; and communicating; while also helping advance their ICT skills.

The European Greenwave project involves 25 schools from 17 different countries. All schools will have to enter a at least two common species as indicators of spring arriving in their respective countries.

The [www.greenwave-europe.eu](http://www.greenwave-europe.eu) site is a multilingual site. It is hoped that for spring 2012 it will include a number of other countries and languages.

## 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 teacher 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 pedagogy.

The Discover Sensors project is currently investigating different methods of assessing Junior Certificate science with Kildare VEC first year students. 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 funded by Intel Ireland and Discover Science & Engineering together as project partners 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 awards including: Intel Best Project Award, Abbott Runner Up Best Project Award, BT Best Communicator Award, the Discover Sensors Award and a maths award. The latter is supported by the National Centre for Excellence in Mathematics and Science Teaching and Learning (NCEMSTL).

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



2010 saw significant increases in the numbers participating in SciFest as follows:

	SciFest 2009	SciFest 2010
<b>Students</b>	1980	2649
<b>Projects</b>	835	1097
<b>Schools</b>	162	196



### SciFest

Secondary school students taking part in the launch of SciFest 2010.

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

ESERO Ireland, based in Discover Science & Engineering, provides educational material and activities which will make science more exciting to young people by using space observation and exploration as an engaging theme. The newly established ESERO also reflects Ireland's increasing involvement in the space industry. Ireland is the fifth country across Europe to establish an ESERO. ESERO Ireland is jointly funded by European Space Agency (ESA) Education and Discover Science & Engineering.

Overall 2010 saw an excellent start to ESERO Ireland and key contacts were established with teachers' organisations, academia, government and industry. A review of the Irish STEM education system's needs was undertaken and completed between December 2009 and March 2010. The recruitment process for the ESERO Ireland office manager was also completed during this time and an implementation plan was agreed with ESA Education. This marked the completion of planning phase of the project.

The space theme was reflected across all of the established DSE programmes in 2010 and in January 2011 DSE was invited to contribute to ESA's future plans to expand the current ESERO network of five countries to up to 17 member countries in total.

# 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 accredits conformity assessment bodies (certification bodies, laboratories and inspection bodies) for conformity to internationally harmonised standards. Accreditation awarded provides assurance that these bodies demonstrate competence and performance capability for a defined scope of activity.

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).

Within Europe, each Member State has appointed a sole national accreditation body in accordance with Regulation 765/2008. In January 2010, INAB was appointed by the Department of Enterprise, Trade and Innovation and notified as the national accreditation body for Ireland to the European Commission.

## 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).

In 2010, INAB was successfully peer-evaluated by EA for continued compliance with ISO 17011 and Regulation 765/2008, with a recommendation to maintain its multi-lateral agreement signatory status.

## 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 the EU Eco Management and Audit Scheme (EMAS)

### Laboratory Accreditation

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

Laboratory accreditation to the international standard ISO/IEC 17025:2005, granted by INAB, provides a formal recognition of the competence of a laboratory to perform specific tests. During 2010, INAB carried out 152 onsite inspections of accredited/applicant laboratories within the Laboratory Accreditation Programme which resulted in the maintenance of 94 laboratory accreditations, the award of accreditation to 19 new laboratories and the award of extensions to scope across a range of disciplines.

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

INAB maintained 51 medical laboratory accreditations to the international standard ISO/IEC 15189:2007 during 2010 and carried out 75 onsite inspections to applicant and accredited organisations. Accreditation was awarded to ISO/IEC 15189:2007 to seven medical testing laboratories in 2010 with a large number of extensions to scope across a range of disciplines.

In addition, INAB received a further 25 applications for accreditation from this sector during 2010 which continues to make it the area of greatest growth in demand for accreditation.

### 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 ISO 9000 series of standards (quality management systems);
- to ISO 14001 (environmental management systems);
- to EN 16001 (energy management systems);
- to ISO 27001 (information security management);

- certify products and persons; and
- verify Greenhouse Gas emissions under INAB accreditation.

INAB carried out 36 onsite inspections of accredited/applicant certification bodies during 2010.

### **Greenhouse Gas Emissions Trading Scheme**

INAB, in cooperation with the Environmental Protection Agency (EPA), established and implemented an accreditation programme in 2006 to underpin the implementation of the EU Greenhouse Gas (GHG) emissions trading scheme set out in European Directive 2003/87/EC. The GHG emissions trading directive (2003/101/EC) was amended in November 2008 to include aviation activities in the scheme for greenhouse gas emission allowance trading within the EU. This new 'Aviation' Directive (2008/101/EC) came into force in February 2009.

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.

### **Management Systems Certification**

INAB maintained accreditation for three accredited certification bodies to enable certification of Irish companies to the energy management standard.

In addition, INAB maintained one certification body as a certification service provider (CSP) for the e-commerce accreditation scheme in support of the EU Directive on e-commerce. Further national legislation in support of this Directive was introduced in 2010 (S.I. 233).

In 2010 INAB also maintained a further four certification bodies for quality management system certification and two certification bodies for environmental management systems certification. Applications for food safety management system certification and occupational health and safety system certification are expected 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 2010, INAB maintained and extended accreditation for two 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. Food product certification will continue to be a growth area for INAB for the foreseeable future.

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. From 2010, INAB has two certification bodies accredited for this scheme and also actively participated in an audit of this scheme undertaken by the European Court of Auditors in 2010.

### 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 2010 INAB maintained the nine 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 2010 INAB carried out 16 onsite inspections of accredited/applicant inspection bodies.

### 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 2010, four test facilities held GLP Compliance Statements under this programme. Two on-site inspections of compliant GLP facilities were carried out in 2010.

### 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 2010 INAB maintained seven 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.

### Accreditation Awareness

Accreditation awareness and feedback from stakeholders continued during 2010. One edition of the INAB newsletter was produced and distributed in 2010 and INAB hosted its bi-annual assessor forum.

## INAB Board Members 2010

	<p><b>Tom O'Neill, Chairman</b> Site Leader, Pfizer, Little Island</p>
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Michael Maloney	INAB Vice Chairperson; Director of Horticulture, An Bord Bia
Dr Adrienne Duff	(ex-Officio) Manager INAB
Vagn Anderson <sup>13</sup>	Manager of International Affairs, Danish Accreditation Body (DANAK)
Dr Nuala Bannon <sup>14</sup>	Inspector, Department of Environment, Heritage and Local Govt
Tom Dempsey	Former Manager INAB
Dermot Hayes	State Chemist, State Laboratory
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	Director of Consumer Practices, National Consumer Agency

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13 Vagn Anderson was re-appointed to the INAB Board in July 2010

14 Dr Nuala Bannon was re-appointed to the INAB Board in July 2010

# 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 2008 and under the aegis of the Minister for Jobs, Enterprise 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 and Irish National Accreditation Board Members furnish statements of interests each year to the Secretary and copies have been provided to the Commission Secretary, Standards in Public Office Commission.

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 operate in 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 Act 1997 as amended by the European Communities (Late Payment in Commercial Transactions) Regulations 2002.

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 2010.

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 2010.

## 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 Attendance

Board Member		Attendance (11 meetings held in 2010)
Eoin O'Driscoll		11
Jane Williams	(retired June 2010)	5 of 5
Martin Shanahan	(appointed June 2010)	6 of 6
Simon Barry	(appointed March 2010)	8 of 9
Bob Brannock	(appointed March 2010)	5 of 9
Tim Dullea	(appointed March 2010)	7 of 8
Prof. Frank Gannon	(retired December 2010)	5 of 10
Sean Gorman		7
Miriam Magner Flynn	(appointed March 2010)	8 of 9
William O'Brien	(reappointed March 2010)	5 of 8
Barry O'Leary		6
Paul O'Toole		10
Frank Ryan		7
Dr Don Thornhill		11

## Customer Charter

Forfás' Customer Charter sets out its commitment to a high quality of service to our customers. This is available at [www.forfás.ie](http://www.forfás.ie). This Charter includes a procedure for dealing with complaints. In 2010 no complaints were received.

## Energy Efficiency

Under Statutory Instrument (SI) 542 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.

### Overview of Energy Usage in 2010

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, SFI and the basement). Two tenants also occupy space in the building.

In 2010, Forfás, IDA Ireland and SFI consumed 2,338 MWh of energy, consisting of:

- 1,604 MWh of electricity
- 734 MWh of fossil fuels
- 0 MWh of renewable fuels

The 2009 usage was 1,766 MWh for electricity and 1,009 MWh for thermal

	WPH Usage 2010	WPH Usage 2009		
Energy Type	kWh	kWh	Saving (kWh)	Saving (%)
Electricity	1,887,530	2,078,163	190,633	9%
Fossil Fuels	863,162	1,187,323	324,161	27%
<b>Total Energy Consumed</b>	<b>2,750,692</b>	<b>3,265,486</b>	<b>514,794</b>	<b>16%</b>

#### Actions Undertaken in 2010

In 2010 Forfás undertook a range of initiatives to improve our energy performance including:

- Oil to gas conversion of boilers
- Installation of additional insulation
- Installation of lighting system
- Implemented a building-wide energy campaign
- Key staff attended Energy Map Training
- Established an onsite energy team
- Reviewed our Business Management System (BMS) settings
- Replaced new heating control valves
- Increased server room set points

The thermal savings were 275 MWh and electrical savings were 162 MWh. Altogether, these and other energy saving measures are saving Forfás 437 MWh annually.

### Actions Planned for 2011

In 2011 Forfás intends to further improve our energy performance by undertaking the following initiatives:

- Implement a staff awareness campaign
- Server consolidation and virtualisation of Forfás servers
- Merger and reconfiguration of SFI and Forfás server room with a view to reducing the air-conditioning requirement
- Continue with regular energy team meetings
- Participate in SEAI Energy Partnership programme
- Identify initiatives to further improve efficiency of our energy usage (in conjunction with SEAI and the agencies in Wilton Park House)

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 2010 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 c 88% for Knockmaun House and c.15% 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 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. Forfás has also written to third level institutions in Dublin advising of the availability of this space. In current market conditions and despite a number of engagements with potential tenants, a letting has not been secured.

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

I have audited the financial statements of Forfás for the year ended 31 December 2010 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 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 of my report.

## Opinion on the Financial Statements

In my opinion, the financial statements, which have been properly prepared in accordance with Generally Accepted Accounting Practice in Ireland, give a true and fair view of the state of Forfás's affairs at 31 December 2010 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 of 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 €1.36 million was incurred by Forfás in 2010 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.



John Buckley

Comptroller and Auditor General

31 March 2011

# Financial Statements



# Statement of Board Members' Responsibilities

## For 2010 Annual Financial Statements

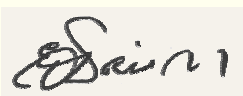
Paragraph 7(2) of the First Schedule to the Industrial Development Act, 1993 requires Forfás to keep, in such form as may be approved of by the Minister for Enterprise, Trade and Innovation with the consent of the Minister for Finance, all proper and usual accounts of money received and expended by it.

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

## 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.

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 2010, the Board conducted a review of the effectiveness of the System of Internal Financial Control.

Signed on behalf of the Board

A handwritten signature in black ink, appearing to read 'Eoin O'Driscoll', is placed on a light grey rectangular background.

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 Enterprise, Trade and Innovation with the consent of the Minister for Finance 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.

## **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 Enterprise, Trade 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 Enterprise, Trade 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 Enterprise, Trade 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 2010

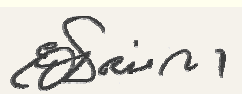
		2010 €'000	2009 €'000
	Notes		
<b>Income</b>			
Oireachtas Grant	1	44,551	36,527
Professional Fees - Irish National Accreditation Board	2	1,880	1,756
Other	3	1,004	1,159
Departmental Programmes	6	2,907	3,375
Net Deferred Pension Funding	8 (e)	29,823	28,445
		<b>80,165</b>	<b>71,262</b>
<b>Expenditure</b>			
Administration and General Expenses	4	14,615	15,861
Depreciation	7	120	147
Pension Costs	8 (c.i)	61,703	50,800
Departmental Programmes	6	2,907	3,375
		<b>79,345</b>	<b>70,183</b>
Surplus for Year		<b>820</b>	<b>1,079</b>
Contribution to Exchequer	5	<b>(799)</b>	<b>(635)</b>
Balance at beginning of Year		<b>3,119</b>	<b>2,517</b>
Transfer (to)/from Capital Account	9	<b>42</b>	<b>158</b>
<b>Balance at end of Year</b>		<b>3,182</b>	<b>3,119</b>

## Statement of Total Recognised Gains and Losses

	Notes	2010	2009
		€'000	€'000
Surplus for Year		820	1,079
Actuarial Gain/(Loss) on Pension Liabilities	8 (c.iv)	3,323	(6,824)
Adjustment to Deferred Pension Funding	8 (c.iv)	(3,323)	6,824
Transfer of Assets to National Pension Reserve Fund	8 (a.i)	-	(186,274)
Increase in Deferred Pension Funding	8 (a.i)	-	186,274
<b>Total Recognised Gain for the Year</b>		<b>820</b>	<b>1,079</b>

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

On behalf of the Board:



Eoin O'Driscoll  
Chairman



Martin Shanahan  
Chief Executive

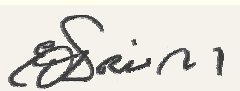
## Balance Sheet

As at 31 December 2010


		2010 €'000	2009 €'000
	Notes		
<b>Fixed Assets</b>			
Tangible Fixed Assets	7	88	130
<b>Total Fixed Assets</b>		<b>88</b>	<b>130</b>
<b>Current Assets</b>			
Accounts Receivable	10	2,680	3,446
Bank		1,336	1,185
		<b>4,016</b>	<b>4,631</b>
<b>Accounts Payable</b>	11	<b>834</b>	<b>1,512</b>
<b>Net Current Assets</b>		<b>3,182</b>	<b>3,119</b>
<b>Deferred Funding Asset</b>	8 (d)	<b>918,616</b>	<b>892,116</b>
<b>Pension Liability</b>	8 (d)	<b>(918,616)</b>	<b>(892,116)</b>
<b>Total Assets Less Current Liabilities</b>		<b>3,270</b>	<b>3,249</b>
Represented By:			
<b>Capital Account</b>	9	<b>88</b>	<b>130</b>
<b>Income and Expenditure Account</b>		<b>3,182</b>	<b>3,119</b>
		<b>3,270</b>	<b>3,249</b>

The Accounting Policies, Cash Flow Statement and Notes 1 to 16 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 2010

		2010	2009
	Notes	€'000	€'000
<b>Reconciliation of Net Movement for Year to</b>			
<b>Net Cash Flow from Operations</b>			
<b>Surplus for Year</b>		<b>820</b>	<b>1,079</b>
Bank Interest		(39)	(30)
(Profit)/Loss on Disposal of Assets		-	7
Depreciation Charge:			
- Tangible Fixed Assets	7	120	147
(Increase)/Decrease in Accounts Receivable		766	11
Increase/(Decrease) in Accounts Payable		(678)	462
<b>Net Cash Flow from Operations</b>		<b>989</b>	<b>1,676</b>
<b>CASH FLOW STATEMENT</b>			
<b>Net Cash Flow from Operations</b>		<b>989</b>	<b>1,676</b>
<b>Returns on Investment and Servicing of Finance</b>			
Bank Interest		39	30
<b>Cash Flow before Capital Expenditure</b>		<b>1,028</b>	<b>1,706</b>
<b>Capital Funding</b>			
Disposal of Tangible Fixed Assets		-	25
Purchase of Tangible Fixed Assets	7	(78)	(21)
<b>Cash Flow after Capital Expenditure</b>		<b>950</b>	<b>1,710</b>
Contribution to Exchequer	5	(799)	(635)
<b>Increase/(Decrease) in Cash</b>		<b>151</b>	<b>1,075</b>
<b>Reconciliation of Increase/(Decrease) in Cash to Cash at Bank</b>			
<b>Movement in Cash for the Year</b>		<b>151</b>	<b>1,075</b>
<b>Cash at Bank at 1 January</b>		<b>1,185</b>	<b>110</b>
<b>Cash at Bank at 31 December</b>		<b>1,336</b>	<b>1,185</b>

## Notes to the Accounts

Year Ended 31 December 2010

<b>1. Oireachtas Grant</b>		<b>2010</b>	<b>2009</b>
		<b>€'000</b>	<b>€'000</b>
Funded by Department Enterprise Trade & Innovation Vote 34			
Administration and General Expenses	Subhead B.1. Forfás	<b>35,505</b>	36,527
Financial Measures Act	Subhead B.2. Forfás (Note 8 (a.i))	<b>9,046</b>	-
<b>Total</b>		<b>44,551</b>	36,527
<p>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, 2010 the aggregate amount so provided was €3,998,011,030.</p> <p>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, 2010 the aggregate amount so provided was €13,547,211.</p>			
<b>2. Professional Fees - National Accreditation Board</b>			
<p>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.</p> <p>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.</p>			
<b>3. Other Income</b>			
		<b>2010</b>	<b>2009</b>
		<b>€'000</b>	<b>€'000</b>
Rental Income*		<b>820</b>	1,114
Bank Interest		<b>39</b>	30
Other Income		<b>145</b>	15
<b>Total</b>		<b>1,004</b>	1,159
*Private Sector sublets of surplus space in current headquarter building Wilton Park House			

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

4. Administration and General Expenses		
	2010	2009
	€'000	€'000
Board Members' Remuneration and Expenses (Including Chief Executive Remuneration) <sup>1</sup>	312	362
Pay Costs <sup>2</sup>	7,079	7,780
Other Personnel Costs	266	272
Travelling & Subsistence Expenses	229	234
Specialised and Professional Services	894	928
Research and Studies	490	650
Rents, Rates, Repairs and Maintenance <sup>3</sup>	4,181	4,267
Other Operating Expenses	872	1,034
Office of the Chief Scientific Adviser <sup>4</sup>	273	314
Audit Fee	19	20
<b>Total</b>	<b>14,615</b>	<b>15,861</b>
Pay Costs comprise:		
Wages and Salaries	6,569	7,200
Social Welfare Costs	416	471
Superannuation Costs	94	109
<b>Total</b>	<b>7,079</b>	<b>7,780</b>
1 Board Members' Remuneration was as follows:		
	2010	2009
	€'000	€'000
Eoin O'Driscoll	22	22
Don Thornhill	13	13
Anne Heraty Resigned 3/3/09	-	2
William O'Brien Retired 31/12/09 and reappointed 22/03/10	10	13
Pat Barry Retired 21/12/09	-	13
Jane Williams Retired 06/06/10	5	4
Sean Gorman	-	-
Barry O'Leary	-	-
Frank Ryan	-	-
Frank Gannon Retired 05/12/10	-	-
Paul O'Toole Appointed 30/06/09	-	-
Simon Barry Appointed 03/03/10	-	-

Bob Brannock	Appointed 03/03/10	10	-
Tim Dullea	Appointed 22/03/10	10	-
Miriam Magner Flynn	Appointed 03/03/10	10	-
Martin Shanahan	Appointed 07/06/10	7	-
Martin Cronin	Retired 05/08/09	-	8

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

Board Members Expenses €1,469 (2009 €1,068)

#### Chief Executives Remuneration

During the period 1/1/2010 to 6/6/2010 a remuneration package comprising salary of €179,659 per annum and a contribution of 12% of salary to a personal pension plan was paid to an interim Chief Executive. A Board Member Fee of €5,492 was also paid in 2010.

A new Chief Executive was appointed on 7/6/2010. A remuneration package comprising salary of €189,115 per annum subject to standard public sector pension arrangements and a company car subject to benefit in kind was applicable. No company car has been provided to date. A Board Member Fee of €7,128 was also paid in 2010.

No performance bonuses were applicable.

2 Pension levy deducted from Pay and remitted to DETI €532,000 (€468,000 in 2009)

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).

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

### 5. Contribution to the Exchequer

Income, surplus to budgeted requirements, surrendered to the Exchequer. The amount of €799,000 is comprised of refund of Oireachtas Grant B.1 (€437,000) and surplus Own Income (€362,000).

### 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.

Programmes		2010 €'000	2009 €'000
Discover Science and Engineering	1 & 6(b)	2,136	2,784
Expert Group on Future Skills Needs	2	402	482
European City of Science	3	369	109
<b>Total</b>		<b>2,907</b>	<b>3,375</b>

#### Details of Funding Bodies:

1 Office of Science & Technology of the Department of Enterprise, Trade and Innovation

2 National Training Fund of the Department of Education and Skills

3 Department of Enterprise, Trade and Innovation.

b) Discover Science and Engineering Expenditure	2010 €'000	2009 €'000
Pay & Expenses	224	353
Communication	344	507
Programme Activities	1,568	1,924
<b>Total</b>	<b>2,136</b>	<b>2,784</b>

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

<b>7. Tangible Fixed Assets</b>				
	Computer Equipment €'000	Motor Vehicles €'000	Fixtures & Fittings €'000	Total €'000
<b>Cost</b>				
At 1 January 2010	979	-	2,859	3,838
Additions	52	-	26	78
Disposals	(88)	-	(27)	(115)
At 31 December 2010	943	-	2,858	3,801
<b>Depreciation</b>				
At 1 January 2010	959	-	2,749	3,708
Charge for Year	38	-	82	120
Disposals	(88)	-	(27)	(115)
At 31 December 2010	909	-	2,804	3,713
<b>Net Book Amount</b>				
At 1 January 2010	20	-	110	130
Net Movement for Year	14	-	(56)	(42)
At 31 December 2010	34	-	54	88

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

### 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 Accounts (cont.)

### Year Ended 31 December 2010

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 the two funded pension 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. Employer (€1,293,000) and employee (€1,293,000) contributions for these schemes are remitted to the Exchequer 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	2010	2009
	€'000	€'000
Service costs	16,214	16,895
Interest on Pension Scheme Liabilities	48,983	39,558
Employee Contributions utilised in payment of pensions	(3,494)	(5,653)
	<b>61,703</b>	<b>50,800</b>
<b>c.ii) Analysis of Service Costs</b>		
Current Service Cost	16,214	16,895
Past Service Cost	-	-
	<b>16,214</b>	<b>16,895</b>



## Notes to the Accounts (cont.)

Year Ended 31 December 2010

	2010	2009
	€'000	€'000
<b>c.iii) Analysis of Interest on Pension Scheme Liabilities</b>		
Interest on scheme liabilities	48,983	49,406
Expected return on scheme assets	-	(9,848)
	<b>48,983</b>	<b>39,558</b>
<b>c.iv) Analysis of amount recognised in Statement of Total Recognised Gains and Losses (STRGL)</b>		
Actual return less expected return on scheme assets	-	(3,149)
Experience gains and (losses)	38,274	43,262
Changes in assumptions	(34,951)	(46,937)
<b>Actuarial Gain/(Losses)</b>	<b>3,323</b>	<b>(6,824)</b>
<b>d) Net deficit in Pension Scheme</b>	<b>(918,616)</b>	<b>(892,116)</b>
made up of:		
Present Value of pension schemes' liabilities	(918,616)	(892,116)
Fair value of schemes' assets (See Note 8(a.i))	-	-
<b>Change in Pension Schemes' Liabilities</b>		
Present value of schemes' obligations at start of year	(892,116)	(857,222)
Current Service Cost	(16,214)	(16,895)
Interest Costs	(48,983)	(49,406)
Payments to Pensioners	35,374	34,990
Premiums Paid	-	92
Actuarial gain/(loss)	3,323	(3,675)
<b>Present value of schemes' obligations at end of year</b>	<b>(918,616)</b>	<b>(892,116)</b>

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

	2010	2009
<b>d.i) Change in Plan Assets</b>	<b>€'000</b>	<b>€'000</b>
Fair value of schemes' assets at start of year	-	185,094
Contributions	-	3,188
Benefits Paid from schemes' assets	-	(8,707)
Expected return on schemes' assets	-	9,848
Actuarial gain/(loss)	-	(3,149)
Transfer of Assets to the National Pension Reserve Fund (Note 8(a.i))	-	(186,274)
<b>Fair value of schemes' assets at end of year</b>	<b>-</b>	<b>-</b>
<b>e) Net Deferred Funding for Pensions in year</b>	<b>2010</b>	<b>2009</b>
	<b>€'000</b>	<b>€'000</b>
Funding recoverable in respect of current year pension costs	65,197	56,453
Funding to pay pensions	(35,374)	(28,008)
	<b>29,823</b>	<b>28,445</b>

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 2010 amounted to €919 million (2009: €892 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 Enterprise, Trade and Innovation.

## Notes to the Accounts (cont.)

### Year Ended 31 December 2010

- f) The valuation used for FRS17 disclosures has been based on a full actuarial valuation at 31 December 2010. The financial assumptions used to calculate scheme liabilities under FRS17 as at 31 December were as follows:

Valuation method:	Projected Unit:	
	2010	2009
Discount Rate	5.25%	5.50%
Salary Increases	3.50%	3.50%
Pension Increases	3.00%	3.00%
Inflation Rate	2.00%	2.25%

**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**

	2010	2009	2008	2007	2006
History of defined benefit obligations, assets and experience gains and losses					
Defined benefit obligation (€'000)	918,616	892,116	857,222	929,488	972,207
Fair value of plan assets (€'000) (Note 8(a.i))	-	-	185,094	199,183	196,395
Deficit/(Surplus) (€'000)	918,616	892,116	672,128	730,305	775,812

**Experience (Gains)/Losses on scheme liabilities**

amount (€'000)	38,274	43,262	(11,377)	(2,625)	(22,110)
percentage of the present value of scheme liabilities	4.2%	4.8%	-1.3%	-0.3%	-2.3%

The total recognised actuarial gain since 2004 is €33 million

- h) **Funding of Pensions**

Payments for unfunded obligations are expected to amount to €43 million in 2011

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

9. Capital Account		
	€'000	€'000
At 1 January 2010		130
Transfer to/from Income and Expenditure Account		
- Cost Additions	78	
- Cost Disposals	(115)	
- Depreciation	(120)	
- Depreciation Disposals	115	
		(42)
<b>At 31 December 2010</b>		<b>88</b>
10. Accounts Receivable		
	2010 €'000	2009 €'000
General Debtors	381	1,119
Prepayments	1,930	1,630
Inter Agency Balances	342	613
Departmental Programmes	27	84
<b>Total</b>	<b>2,680</b>	<b>3,446</b>
<p>General Debtors include €0 (2009: €155,559) VAT recoverable by Forfás on behalf of the Forfás VAT Group (Forfás, IDA Ireland &amp; Enterprise Ireland).</p> <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 €154,266 (2009: €459,673) from Enterprise Ireland and Science Foundation Ireland.</p>		
11. Accounts Payable		
	2010 €'000	2009 €'000
General Creditors	501	265
Accruals	166	144
Payroll	112	394
Inter Agency Balances	55	709
<b>Total</b>	<b>834</b>	<b>1,512</b>

## Notes to the Accounts (cont.)

### Year Ended 31 December 2010

General Creditors include €170,220 (2009: €0) VAT payable by Forfás on behalf of the Forfás VAT Group (Forfás, IDA Ireland & Enterprise Ireland).

Interagency Balances represents amounts due, if any, to the Forfás Agencies (IDA Ireland, Enterprise Ireland and Science Foundation Ireland) and includes VAT payable of €54,441 (2009: €709,211) to IDA Ireland.

#### 12. Commitments under Operating Leases

A net total of €2,929,000 (2009: €3,046,000) has been charged in respect of operating leases on buildings in the accounts of Forfás. Forfás has commitments of €7,071,000 to pay during 2011 in respect of leases expiring as set out below. Costs arising out of these commitments in 2011 will be shared between Forfás Agencies and tenants in proportion to agreed office space occupied. The net Forfás share of these costs in 2011 is anticipated to be approximately €2,998,000.

	€'000
(i) 2011	66
(ii) 2012- 2016	1,200
(iii) 2017 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 €191,780
c) Carrisbrook House*	15.11% Sublet	84.89% Vacant	Total Cost of Vacant Space €1,165,767

\*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.

There were no Finance leases in 2010.

#### 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 2010 no payments were made to any organisations associated with a Board Member.

## Notes to the Accounts (cont.)

Year Ended 31 December 2010

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### 15. Contingencies and Legal Actions

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

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### 16. Approval of Financial Statements

The Financial Statements were approved by the Board on 17 February 2011

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# Appendix 1

## Advisory Councils



## Advisory Council for Science, Technology and Innovation



**Dr Tom McCarthy, Chairman**  
**Chief Executive, Irish Management Institute**

Martin Shanahan	Chief Executive, Forfás
Dr Sean Baker	Independent Consultant and founder of IONA Technologies plc
Bernadette Butler	Managing Director, Good 4U Food and Drink Company Limited
Prof. Dolores Cahill	Professor of Translational Science, Conway Institute, University College Dublin
Marion Coy	President, GMIT, Galway
Prof. Anita R. Maguire	Prof. of Pharmaceutical Chemistry, Vice-President of Research and Director of Analytical and Biological Chemistry Research Facility, University College Cork
Prof. Brian MacCraith	President, Dublin City University
Paul McCambridge	Business Consultant
John McGowan	Managing Director, Michael McNamara & Co
Prof. Roger Whatmore	Chief Executive Officer, Tyndall National Institute

Dr Reg Shaw resigned from the ACSTI Board in June 2010

Mary Cryan resigned from the ACSTI Board in July 2010

## Expert Group on Future Skills Needs



Una Halligan, Chairperson

Martin Shanahan	Chief Executive, Forfás
Marie Bourke	Manager of Education, Skills and Labour Market Policy, Forfás
Inez Bailey	Director, National Adult Literacy Agency
George Bennett	Departmental Manager, Clean Tech, IDA Ireland
Liz Carroll	Training and Development Manager, ISME
Terry Corcoran	Director of Planning and Research, FÁS
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
Brendan Ellison	Principal Officer, Department of Finance
Anne Forde	Principal Officer, Department of Education and Skills
Pat Hayden	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
Dermot Mulligan	Assistant Secretary, Department of Education and Skills
Frank Mulvihill	Former President of the Institute of Guidance Counsellors
Dr Brendan Murphy	President, Cork Institute of Technology
Alan Nuzum	CEO, Skillnets
Muiris O'Connor	Higher Education Authority
Peter Rigney	Industrial Officer, ICTU
Jacinta Stewart	Chief Executive, City of Dublin VEC

## National Competitiveness Council

	<p><b>Dr Don Thornhill, Chairman</b> Business Adviser and Company Director</p>
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Martin Shanahan	Chief Executive, Forfás
Brendan Butler	Director of Policy and International Affairs, IBEC
Donal Byrne	Chairman, Cadbury Schweppes Ireland Limited
Shay Cody	Deputy General Secretary, IMPACT
Michael Delaney <sup>15</sup>	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
Marcus Hewson	Senior Vice President, McDonalds Corporation
Annette Hughes	Director, DKM Economic Consultants
Harry Lorton <sup>16</sup>	Director and Deputy Chairman, Royal Liver Assurance Ltd
Seán Murphy	Deputy Chief Executive, Chambers Ireland
Declan Purcell <sup>17</sup>	Chairperson, Competition Authority
William Slattery	Executive Vice President and Head of European Offshore Domiciles, State Street International (Ireland)

<sup>15</sup> Michael Delaney was appointed to the NCC in January 2011

<sup>16</sup> Harry Lorton was appointed to the NCC in January 2011

<sup>17</sup> Declan Purcell was appointed to the NCC in January 2011

William Prasifka retired from the NCC in February 2010

Rory Ardagh retired from the NCC in October 2010

Ferdinand von Prondzynski retired from the NCC in January 2011

# Appendix 2

## Forfás

## Publications

## Forfás Publications

<b>Annual Employment Survey 2010</b> Forfás	May 2011
<b>Ireland's Response to the EC Green Paper: Towards a Common Strategic Framework for EU Research and Innovation Funding</b> Forfás, Department of Enterprise, Jobs and Innovation and Advisory Council on Science, Technology and Innovation	May 2011
<b>Expert Group on Future Skills Needs Statement of Activity 2010</b> Expert Group on Future Skills Needs	May 2011
<b>Business Expenditure on R&amp;D 2009/2010</b> Forfás	April 2011
<b>Developing Recognition of Prior Learning</b> Expert Group on Future Skills Needs	April 2011
<b>Vacancy Overview 2010</b> Expert Group on Future Skills Needs	March 2011
<b>Ireland's Competitiveness Priorities</b> National Competitiveness Council	March 2011
<b>Analysis of Ireland's Innovation Performance</b> Forfás	March 2011
<b>Progress Report on the implementation of the recommendations of the report of the High Level Group on Green Enterprise</b> Forfás, DETI	March 2011
<b>Staying the Course</b> Advisory Council for Science, Technology and Innovation	January 2011
<b>Research strengths in Ireland: a bibliometric study of the public research base - Extension Report: Public Research Organisations</b> Forfás, HEA	December 2010
<b>The Higher Education R&amp;D Survey 2008</b> Forfás	December 2010
<b>Profile of Public Research Activity in Ireland, 1998-2006</b> Forfás, HEA	December 2010

<b>Research and Development Activity of Irish Based Enterprise</b> Forfás, HEA	December 2010
<b>Research and Development Activity of Irish Based Enterprise - Vol 2: Data</b> Forfás, HEA	December 2010
<b>Ireland's Priorities in FP8</b> Forfás	December 2010
<b>Annual Competitiveness Report 2010 Volume 2: Ireland's Competitiveness Challenge</b> National Competitiveness Council	November 2010
<b>Future Skills Needs of Enterprise within the Green Economy in Ireland</b> EGFSN	November 2010
<b>An Enterprise Perspective on the Universal Social Contribution</b> Forfás	November 2010
<b>Review of Labour Cost Competitiveness</b> Forfás	November 2010
<b>Annual Business Survey of Economic Impact 2009</b> Forfás	November 2010
<b>Enterprise Statistics at a Glance 2010</b> Forfás	November 2010
<b>Categorisation of State Expenditure on R&amp;D</b> Forfás	November 2010
<b>Future Skills Requirements of the Biopharma-Pharmachem Sector</b> EGFSN	November 2010
<b>Waste Management in Ireland: Benchmarking Analysis and Policy Priorities - Updated 2010</b> Forfás	October 2010
<b>Making It Happen: Growing Enterprise for Ireland</b> Forfás	October 2010
<b>Ireland's Nanotechnology Commercialisation Framework 2010 - 2014</b> Forfás	August 2010
<b>Adaptation to Climate Change: Issues for Business</b> Forfás	August 2010

<b>The Irish Energy Tetralemma - A Framework for Fuel Choices in Ireland</b> Forfás	August 2010
<b>The Role of State-owned Enterprises: Providing Infrastructure and Supporting Economic Recovery</b> Forfás	July 2010
<b>Annual Competitiveness Report 2010 Volume 1: Benchmarking Ireland's Performance</b> National Competitiveness Council	July 2010
<b>Costs of Doing Business in Ireland 2010</b> National Competitiveness Council	July 2010
<b>Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs 2010</b> EGFSN, FÁS	July 2010
<b>National Skills Bulletin 2010</b> EGFSN, FÁS	July 2010
<b>Forfás Annual Report 2009</b> Forfás	June 2010
<b>Future Skills Needs of the Wholesale and Retail Sector</b> EGFSN	May 2010
<b>Review of Supports for Exploitation of Intellectual Property from Higher Education Research</b> Forfás, DETI	May 2010
<b>Expert Group on Future Skills Needs - Statement of Activity 2009</b> EGFSN	April 2010
<b>Single Window: Assessment of the Costs of Trade-Related Regulatory Requirements in Ireland</b> Forfás	March 2010
<b>Annual Employment Survey 2009</b> Forfás	March 2010
<b>Evaluation of Framework Programme 6 in Ireland</b> Forfás	March 2010
<b>Maximising the Environment for Company Research and Development</b> Advisory Science Council	March 2010

<b>Review of Labour Market Programmes</b> Forfás, DETE	March 2010
<b>Profile of Employment and Unemployment</b> Forfás	March 2010
<b>Management Development in Ireland</b> Management Development Council	March 2010
<b>Forfás Evaluation of Irish Membership of the European Molecular Biology Laboratory</b> Forfás	March 2010
<b>Ireland's Broadband Performance and Policy Actions</b> Forfás	January 2010
<b>Regional Competitiveness Agendas</b> Forfás	January 2010
<b>Annual Business Survey Of Economic Impact 2008</b> Forfás	January 2010
<b>Annual Competitiveness Report 2009, Volume Two: Ireland's Competitiveness Challenge</b> National Competitiveness Council	January 2010





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 2011

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