To the Minister for Enterprise, Trade & Employment

Pursuant to the Industrial Development Act, 1993, Forfás herewith presents its report and accounts for the year ended December 31, 2002.

Do Aire Fiontar, Trádála agus Fostaíochta

De bhun an Achta um Fhorbairt Tionscail, 1993, tá a thurascáil agus a chuntais don bhlian dar chríoch 31 Nollaig, 2002, a dtíolacadh leis seo ag Forfás.

Peter Cassells
Chairman

Martin Cronin
Chief Executive

Functions of Forfás >

Is é Forfás an bord náisiúnta um polasaí agus comhairle le haghaidh fiontraíochta, trádála, eolaíochta, teicneolaíochta agus nuála. Is é an comhlacht é a bhfuil comhactaí dlíthiúla an stáit maidir le cur-chun-cinn tionscail agus forbairt teicneolaíochta dílsithe ann. Is é an comhlacht é freisin trína dciomnaítear cumhachtaí ar Fhiontraíocht Éireann le tionscail dúchais a chur chus cinn agus ar ghníomhaireacht Forbartha Tionscail na hÉireann (GFT Éireann) le hinfheistíocht isteach sa tir a chur chun tosaight. Is iad feighmeanna Fhorfáis:

- comhairle a chur ar an Aire ó thaobh cúrsaí a bhaineann le forbairt tionscail sa Stát;
- comhairle maidir le forbairt agus comhordú polasaithe a chur ar fáil d'Fhiontraíocht Éireann, d'GFT Éireann agus d'aon fhoras eile dá leithéid (a bunaíodh go reachtúil) a d'fhéadfadh an tAire a ainmniú trí ordú;
- forbairt na tionsclaíochta, na heolaíochta agus na teicneolaíochta, na nuála, na margaíochta agus acmhainní daonna a spreagadh sa Stát;
- bunú agus forbairt gnóthas tionsclaíoch ón iasacht a spreagadh sa Stát; agus
- Fiontraíocht Éireann agus GFT Éireann a chomhairliú agus a chomhordú ó thaobh a gcuid feidhmeanna.

Forfás is the national policy and advisory board for enterprise, trade, science, technology and innovation. It is the body in which the State's legal powers for industrial promotion and technology development have been vested. It is also the body through which powers are delegated to Enterprise Ireland for the promotion of indigenous industry and to IDA Ireland for the promotion of inward investment. The broad functions of Forfás are to:

- advise the Minister on matters relating to the development of industry in the State;
- advise on the development and co-ordination of policy for Enterprise Ireland, IDA Ireland and such other bodies (established by or under statute) as the Minister may by order designate;
- encourage the development of industry, science and technology, innovation, marketing and human resources in the State;
- encourage the establishment and development in the State of industrial undertakings from outside the State; and
- advise and co-ordinate Enterprise Ireland and IDA Ireland in relation to their functions.

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Forfás Board Members >

1 **Peter Cassells**
Chairman

2 **Martin Cronin**
Chief Executive
Forfás

3 **Sean Dorgan**
Chief Executive
IDA Ireland

4 **Dan Flinter**
Chief Executive
Enterprise Ireland

5 **Paul Haran**
Secretary General
Department of Enterprise,
Trade & Employment

6 **Professor Michael Hillery**
Chair of Manufacturing Engineering
University of Limerick

7 **Rody Molloy**
Director General
FÁS

8 **William Murphy**
Partner
Tynan Dillon & Company

9 **Feargal O'Rourke**
Partner, Taxation
PricewaterhouseCoopers

10 **Professor Yvonne Scannell** [1]
Professor at Law
University of Dublin
Trinity College

11 **Toni Wall**
Managing Director
Wall 2 Wall Ltd

12 **Jane Williams**
Managing Director
The Sia Group Ltd

13 **David Lovegrove** [2]
Secretary to the Board

14 **Michael O Leary** [2]
Secretary to the Board

1 Professor Yvonne Scannell retired from the Forfás Board on 31 December 2002.
2 David Lovegrove retired at the end of 2002 and was replaced by Michael O'Leary.

Chairman's Statement >

Peter Cassells
Chairman

Economic dynamism and social progress go hand in hand. An innovative, enterprising economy offers the best opportunity to construct a fair and inclusive society in which all can contribute to and benefit from rising prosperity. During this period of global economic and political uncertainty it is vital that policy-makers and economic development agencies maintain a clear focus on the determinants of long-term economic and social progress and improvements in Irish living standards and prosperity.

Chairman's Statement >

"New job creation must remain an important objective for policy-makers, despite a demographically related slowdown in labour force growth."

Many factors will work together to shape our future economic landscape. Of these, three priorities stand out for 2003. First, we must continue to create new jobs and grow new industries. The role of the development agencies, Enterprise Ireland and IDA Ireland is crucial in this regard. Secondly, we must put in place measures to further increase productivity and profitability across existing sectors of the economy. More investment in research, innovation, physical infrastructure and education, combined with higher levels of competition, all play a role in supporting productivity growth across the economy. Finally, as a small economy, we must be ever vigilant about sustaining our competitiveness in terms of prices and wage costs.

The unyielding pace of technological change and intense competition from lower cost locations has forced an acceleration in the pace of industrial restructuring. This in turn has resulted in significant job losses and a recent rise in unemployment. The pace of such industrial restructuring and employment turnover is unlikely to ease in the near-term. New job creation must remain an important objective for policy-makers, despite a demographically related slowdown in labour force growth.

As some product areas in Ireland decline, the emergence and growth of others will be required to replace them. This is the nature of modern economies. In this regard, it is important to recognise the work of Forfás' sister agencies: Enterprise Ireland and IDA Ireland. Companies under the remit of the enterprise development agencies created more than 25,000 new "permanent full-time jobs" in 2002. Although this employment creation was outweighed by job losses of just over 35,000, it remains an impressive performance given the difficult global economic conditions. Most of the job losses were concentrated in the computer hardware and software sectors reflecting the severe global slowdown suffered by the information and communications technology (ICT) industry. Other agency-supported sectors, such as international financial services and life sciences, recorded net increases in full-time employment. Moreover, despite recent difficulties it is important to remember that employment in agency-supported companies is 40 per cent higher than it was at the beginning of the 1990s.

"Productivity will be the long-term determinant of sustainable improvements in Irish incomes and living standards."

Improvements in national income and living standards stem from two sources: increases in the level of employment (both numbers employed and hours worked per person) and improvements in productivity (the manner in which capital, human and technological "inputs" are combined to produce more and better "outputs" for each hour worked). Notwithstanding the ongoing need to replace lost jobs with new ones, demographic changes and the low rate of unemployment mean that overall employment levels and hours worked will not grow as quickly in the coming years as they did in the 1995-2001 period. With this in mind, improvements in productivity, through greater innovation and efficiency at the firm level and greater participation in the provision of high value products and services, will be key to sustainable growth in incomes and living standards over the coming years.

The ability to achieve continuing productivity growth depends on a number of factors which come within the remit of policy-makers and the development agencies, including:

- Investment in infrastructure
- Investment in skills and education
- Innovation and creativity
- Greater competition
- Promoting growth, social partnership and national competitiveness

Encouraging Investment in Infrastructure

Investment in infrastructure, both public and private, is an important driver of productivity growth at the firm level. Rapid economic growth in Ireland's main cities during the 1990s, particularly along the eastern seaboard, outpaced the provision of the necessary public economic and social infrastructure. This has resulted in increasing congestion and quality of life issues. Improving the physical infrastructure of the economy, including transport, energy and communications networks, will allow easier movement of goods, services and people. The resulting efficiency and cost gains will, in turn, increase the medium-term growth potential of the economy.

The Government's priorities for investment in physical infrastructure were outlined in the National Development Plan (NDP) 2000-2006. The Mid-Term Review of the NDP, which is taking place this year, provides an important opportunity to re-prioritise infrastructure projects for the coming years and to address some of the problems in the delivery of projects experienced in recent years. Forfás will work with relevant stakeholders in addressing these issues.

Equally important for productivity growth will be greater private investment at firm level. This is best supported through the provision of a stable macroeconomic environment and a tax and regulatory system that offers private investors incentives for risk-taking. Policy-makers and the development agencies must continue to ensure that in addressing public policy objectives in, for example, the social and environmental domains, that Ireland's tax and regulatory systems meet the

needs of new industries and business models but at the same time do not undermine Ireland's economic dynamism. Particularly challenging in this regard will be our ability over the coming years to stem growth in greenhouse gas emissions by Irish industry, in line with commitments made under the Kyoto Protocol, without damaging the competitiveness of Irish industry.

Investment in Skills and Education

In a competitive global economy, ensuring sustained economic growth will critically depend on the skills and flexibility of the Irish workforce. Indeed, many international studies have found that investment in skills and education is the most important factor for growth in national productivity. It is also particularly important at a time when Ireland is facing increasing competition from countries that are raising the skill content of their labour force as part of national strategies.

A pressing concern is the declining proportion of students taking courses in the physical sciences, engineering and technology at third level. Left unchecked, this decline will inevitably impact on Ireland's ability to develop the scientific, technological and research capabilities needed to support growth in identified high value-added sectors. The challenge of reversing this trend has been taken up across the development agencies and the education sector, and in this regard I would particularly like to pay tribute to the work of the Expert Group on Future Skills Needs, the National Skills Awareness Campaign and the Science, Technology and Innovation Awareness Programme, all of which are supported by Forfás. In this context, it is essential that the implementation of the recommendations in the report of the Task Force on Physical Sciences are implemented in full as soon as possible.

Encouraging Innovation and Creativity

Innovation involves the creation of new products and services valued by customers, as well as finding ways to lower the cost and improve the quality of existing products and services. While innovation ultimately occurs at the firm level, it depends on effective knowledge linkages between firms, their suppliers and customers, as well as universities, research institutes, Government and its agencies. Such linkages and networks are the essence of what is often called "a national system of innovation". A national system of innovation can be developed through a number of actions by policy-makers and the development agencies. These include the development of technology transfer capabilities within universities; the introduction of innovation led procurement policies; the design of public financial participation in private venture capital organisations; support of the development of international marketing capability in Irish firms and the establishment by them of an overseas presence in low cost shared facilities.

Positioning innovation at the heart of Irish enterprise development over the next decade will also require a continuation of the rapid growth in Ireland's investment in research. Ireland's investment in R&D is estimated at 1.17 per cent of GDP in 2001. Although this is a large increase on previous levels of expenditure, it is still significantly below that of other knowledge intensive economies, such as Sweden (3.8 per cent), Finland (3.2 per cent) and the USA (2.8 per cent).

The importance attached by Government to improving Ireland's science and technology infrastructure is reflected in the unprecedented allocations for investment in science, technology and innovation under the NDP. At €2.48 billion, budgeted spending for 2000-2006 compares with an allocation of just €0.5 billion over the period 1994-1999. This commitment is also reflected in the announcement of increased research funding for Science Foundation Ireland (SFI) in the 2003 Budget Estimates, particularly at a time of budgetary constraint. SFI is using these funds to support over 90 outstanding researchers, from Ireland and overseas, with some of the most substantial government grants for scientists in the world. This investment sends a strong signal to industry nationally and internationally of the Government's long-term commitment to making Ireland an attractive environment for technology driven and innovative enterprise.

An Tánaiste and Minister for Enterprise, Trade and Employment, Mary Harney T.D., has pointed out that the strong focus on the role of science and technology in our economic and social life indicates that we have added a new dimension to industrial policy. This science based industrial policy aims to foster clusters of world-class technology based companies, both Irish and foreign owned, that work in new knowledge areas in collaboration with the university research initiatives. Together, they will generate maximum value for Ireland by commercialising research output, creating high-level jobs for our people, and building an entrepreneurial environment in which new technology based businesses prosper.

Need for Greater Competition

All these factors - investment in infrastructure, education and skills and research, development and innovation - will be vital to growth in productivity and innovation over the coming years. Another important driver in creating greater productivity growth and innovation will be greater levels of domestic competition. Intense competition between firms in the domestic market makes a key contribution to competitiveness on international markets by driving greater innovation and efficiency. The Irish Competition Authority has indicated that too many sectors of the Irish economy, from utilities to banking, retailing and distribution and many professional services, remain, to different degrees, protected from competitive forces.

What can policy-makers do to encourage greater levels of competition, and thus encourage innovation and productivity growth? In the short-term, the main priority must be to ensure that the Competition Authority is in a position to tackle anti-competitive practices among domestic suppliers of goods and services. An important development in this regard was the Competition Act 2002, which provided for criminal penalties for violations of competition law. In the longer-term, offering freer access to the Irish market to foreign goods and services suppliers will also be important. This can be facilitated through completion of the Single European Market in services trade and through the removal of remaining global barriers to trade in goods and services as part of the new round of World Trade Organisation (WTO) trade liberalisation talks, which commenced in Doha in 2001.

"There is increasing evidence that the cost base of the Irish economy, including pay levels, has been rising more quickly than can be justified by productivity growth, and is now well above European averages."

Productivity Growth, Social Partnership and National Competitiveness

Productivity will be the long-term determinant of sustainable improvements in Irish incomes and living standards. However, sustaining competitiveness and employment levels in Ireland, as in all small open regional economies, requires an appropriate match between productivity, prices and wages. This is particularly true now that Ireland no longer has an independent exchange rate policy. There is increasing evidence that the cost base of the Irish economy, including pay levels, has been rising more quickly than can be justified by productivity growth, and is now well above European averages. A major contribution has been rapid price and pay inflation in domestically-traded services sectors of the economy. This has been exacerbated by a lack of competition, more recently by Government increases in excise taxes and administered prices and is adversely affecting the competitiveness of Ireland as a location for internationally-traded activities.

"Sustaining Progress", the new national pay and partnership agreement, offers evidence that the social partners recognise the need to bring pay increases into line with productivity growth in order to protect employment and national competitiveness. The agreement is a timely reminder of the contribution of social partnership to national economic and social development. I would like to pay tribute to the commitment and effort of all those involved in bringing these difficult negotiations to a successful conclusion.

Equally, pay moderation must come in parallel with a slowing of other price and cost increases in order to protect living standards and the real value of wage increases. The National Competitiveness Council, whose Secretariat is provided by Forfás, has put a series of recommendations designed to bring price inflation down towards the average in other European countries. I encourage the Government and other social partners to reflect carefully on these proposals.

Acknowledgements

During 2002, Forfás received significant support from An Taoiseach, Mr Bertie Ahern, T.D., from An Tánaiste and Minister for Enterprise, Trade and Employment, Ms Mary Harney, T.D., and from other Government Ministers and Departments in carrying out its work. I wish to acknowledge this support and its practical expression in the content of a range of Government policies and publications aimed at the further development of the enterprise sector in Ireland.

In 2002, our sister agencies, namely, Enterprise Ireland, Fás, IDA Ireland, Shannon Development and Údarás na Gaeltachta, achieved strong results in the context of difficult global economic conditions and strongly supported the work of Forfás. I acknowledge and appreciate the support of the third-level sector, employer bodies and business organisations, trade unions and the media. Their contributions were essential to the results of the development agencies and the pro-enterprise policies put in place across a range of Government Departments.

As Chairman, I would like to express my thanks and appreciation to my fellow Board Members, in particular Professor Yvonne Scannell who retired from the Board on 31 December 2002 after four years of service to the organisation.

I would also like to express the appreciation of the Board for the work of David Lovegrove who retired in

December 2002 having served as Secretary to the Board since the establishment of Forfás in 1994.

I also want to thank many other organisations that contributed to the work of Forfás during the year, in particular the members of the following groups:

- The Irish National Accreditation Board (NAB), chaired by Dr Máire Walsh
- The National Competitiveness Council (NCC), chaired by Mr William Burgess
- The Irish Council for Science, Technology and Innovation (ICSTI), chaired by Dr Edward M. Walsh
- The Expert Group on Future Skills Needs, chaired by Dr Daniel O'Hare

I wish to acknowledge the significant support provided by the EU for enterprise development and the support of science and technology in Ireland through the NDP and through a range of other programmes which impact significantly on the environment for enterprise.

Finally, I want to thank the staff of Forfás for their continued dedication, hard work and professionalism throughout the year. I would like to pay particular tribute to the Chief Executive, Mr Martin Cronin. Since his appointment in May 2002, Martin has led the organisation through a period of profound change, resulting in a new management team and organisation structure and a renewed sense of purpose. In the light of these changes, I am confident of the contribution that Forfás and its associated bodies will make to driving forward the next stage of Ireland's economic and social development.

Peter Cassells
Chairman

May 2003

Chief Executive's Report >

Martin Cronin
Chief Executive

Economic Overview

The long awaited recovery in worldwide economic growth is being delayed by continued global economic and political uncertainty. This uncertainty has dampened consumer demand, international trade and business investment. Worldwide flows of foreign direct investment (FDI) declined in 2002 by 27 per cent to about US$ 534 billion, following a 50 per cent decline in 2001. Likewise, total imports by the EU and the United States decreased by six per cent in the first six months of 2002, while imports into Japan and Latin America decreased at double digit rates.

Chief Executive's Report >

"Considering our exposure to global developments as a small open economy, Ireland performed robustly in 2002."

At an estimted 6.3 per cent, growth in the overall economy (as measured by gross domestic product (GDP)) slowed during 2002, but remained more than double the EU average. Labour market conditions also remained positive with unemployment holding at around 4.5 per cent of the labour force.

This is not to say that businesses in Ireland were immune to the difficult global conditions. While industrial production grew by eight per cent, most of this growth occurred in the first half of the year, and was down from growth of 10 per cent in 2001 and 15 per cent in 2000. Similarly, exports grew by just one per cent in 2002, down from growth of over 10 per cent in 2001.

While overall employment levels in the Irish economy increased marginally in 2002, this was mostly as a result of job creation in the public sector and other domestic services sectors of the economy. Employment in firms in the more exposed internationally-traded manufacturing and service sectors contracted for a second consecutive year.

Outlook

Looking ahead to the rest of 2003, it seems likely that economic conditions in Ireland and across the world will remain challenging. Economic growth in Ireland this year is likely to be in the region of three per cent, which is below its potential. Like all economic cycles, this global downturn is a short-term phenomenon. An eventual recovery in investor certainty and confidence will inevitably be accompanied by a resumption in the growth of international flows of trade, investment and technology. We must ensure that when this happens, Ireland is in the best possible position to take advantage of any pick-up in the global economy.

Our economy already has many strengths - a low level of indebtedness, a strong base of modern manufacturing and internationally-trading services, a competitive taxation system, growing investment in publicly funded research, unrivalled international telecoms connectivity and an ability, because of our small size, to adapt in a timely way to changing circumstances. Our challenge is to build on these strengths in order to respond to the changing competitive landscape and to take advantage of the opportunities that global economic recovery will offer.

The Future Competitive Challenge

The past 10 years have brought two fundamental changes. Firstly, Ireland has reached a new stage of development driven principally by strong growth in the production of internationally-traded goods and

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> "The education system was a pivotal enabler of our recent economic success and it will play an even more vital role in the innovation driven economy towards which we are aiming."

services. Secondly, international competition has been transformed by the emergence of lower cost locations as credible sites for most of the activities on which our prosperity is based (i.e. both medium and high end manufacturing and medium and high end services).

Our strategic response must be informed by these realities and by the certainty that globalisation will continue.

To remain successful in a globalising economy Ireland must build distinctive competencies in businesses and activities where we are, or can become, significant players. Our small size implies that these will be niche businesses and increasingly specialised activities.

Ireland must build its competitiveness based not only on competitive costs, high skills and low tax but also on the availability of specialist suppliers and service providers, appropriate infrastructure, a good regulatory environment and research and development capacity. Each of these must be tailored, where possible, to support the kinds of business for which we can make Ireland a "super-competitive" location.

Developing and reinforcing a strong Irish presence in growing internationally-trading businesses will enable us to generate the wealth required to address wider economic and social development.

Ireland is already a significant player in many areas of business with long-term potential including for example communications software, medical devices and financial services, to name but three. Both Irish and overseas owned companies have internationally significant operations here, making Ireland one of the leading locations for these businesses. If we work to shape the national business environment in a way that reinforces their competitiveness, such business areas can continue to succeed and grow in Ireland. The allocation of communications bandwidth can promote Ireland as a wireless test centre; the establishment under the Programme for Research in Third Level Institutions (PRTLI) of the National Centre for Biomedical Engineering at NUI Galway will help to underpin the medical device industry; and the establishment by the National College of Ireland of the International Financial Services Institute (IFSI) will ensure a strong supply of relevant skills for the financial services industry. These are concrete examples of how such businesses can be strategically embedded in the economy by sector specific initiatives.

It is also important to put in place horizontal measures to support all industries. The provision of national physical infrastructure, broadband communications, the encouragement of competition in domestic markets and the maintenance of an operating environment in which business can respond flexibly to changing conditions remain important determinants of overall competitiveness. The Mid-Term Review of the NDP and the associated prioritisation of projects will be important in this regard.

Building an Innovation Economy

Most important in ensuring that the Irish economy adapts and prospers in the new competitive environment is to put in place policies that will sharply increase the role of innovation in our economy. This can be achieved through the development and rapid adoption in Ireland, of new and innovative products, services and business models. This requires the right mix of strong growth in both privately and publicly funded research. Ireland must ensure that a number of crucial enablers are in place, particularly:

- A more developed capacity to absorb and apply the outputs of research in both the private and public sectors;
- Adequate availability of the full spectrum of venture funding from proof-of-concept funding to late stage venture capital;
- A regulatory environment that facilitates the emergence of new ideas and new businesses;
- A deeper understanding of international markets and an ability to seek out new export opportunities and to identify the most competitive sources for our imports;
- Well functioning links between business, third-level institutions, the financial community and Government that facilitate the interactions necessary for vibrant innovation.

Ireland has benefited greatly from the performance of science driven sectors, principally ICT and life sciences. Spill over effects from high-tech foreign enterprises and rapidly developing research activities in the universities have stimulated the opening of a range of new technology based firms in areas such as software which add to traditional indigenous strengths. As a result of our strategic use of structural funds to build up the technological infrastructure in the university sector, we are seeing an increase in the number of campus companies and high potential start-ups. The challenge now is to consolidate these advances at a time of increasing uncertainty in world markets and to lay the groundwork for moving to a new stage of industrial development.

The role of the NDP (National Development Plan) here is crucial. The €2.48 billion which has been allocated for R&D must continue to be spent in a manner which generates most impact. Given the importance of enhancing national R&D capabilities, maintaining the current levels of finance for R&D programmes is essential and should not be adversely affected by short-term budgetary constraints.

To foster a climate of inventiveness and innovation, a further strengthening of Ireland's national policies regarding the commercialisation of science and technology research outcomes is required. In this regard we are undertaking policy analysis in conjunction with the development agencies in areas such as intellectual property, R&D tax credits, technology transfer resources and capability and the development of a more coherent programme of national research.

The education system was a pivotal enabler of our recent economic success and it will play an even more vital role in the innovation driven economy towards which we are aiming. Forfás will work for consensus among the relevant stakeholders on issues such as:

- The redefinition of basic skills to include technological literacy and fluency in foreign languages;
- How to achieve greater participation in the physical sciences;
- Our approach to life-long learning for both educators and their students;
- The curriculum development process, use of resources and new forms of delivery of education.

Economic Crossroads

Much has been achieved over the past decade. Incomes and living standards have improved; unemployment has been drastically reduced; significant progress has been made in the provision of national infrastructure; public debt is now amongst the lowest in the EU; and we have created a solid foundation of internationally-trading companies. This is an excellent starting point from which to tackle the challenges which have begun to emerge. If we act now to promote enhanced competitiveness the Irish economy will be well placed to take advantage of a global economic recovery.

Activities of Forfás

We are currently engaged with the Department of Enterprise, Trade and Employment in supporting a review of enterprise policy. This is a key element in consolidating Ireland's existing enterprise base to move to the next phase of economic development. It will also assist in ensuring that the right policies and skills are in place to support our ability to compete as an emerging knowledge economy.

Forfás is working on a review of the current National Innovation System and the further development of a national strategy to promote an innovation culture in Irish enterprise. This will respond to and take cognisance of the decision taken at the EU Spring Council which exhorted Member States to encourage the growth of a business environment which fosters the climate for innovation. The work will also include a review of the policy options to promote product, process and service innovation in companies based in Ireland and a detailed examination of the diffusion mechanisms available nationally to ensure that the results of research translate effectively into the enterprise environment. For Ireland to maintain its economic position in the emerging knowledge based global economy a systematic approach towards an innovation-friendly environment is a must.

Forfás considers innovation to be at the heart of a competitive knowledge based economy. It is essential to take a long-term view when building a sustainable national system of innovation linking the private and public sector, knowledge creators and knowledge users. Implementation of the recommendations from the Technology Foresight exercise completed in 1999 contributed significantly to the growth of the research base in Ireland. The establishment of Science Foundation Ireland, the National Foundation for Excellence in Scientific Research, provides a solid base from which to develop innovation policies and strategies. Similarly, our participation in EU research networks and the development of a European Research Area will support our national efforts to build an innovation driven economy. Finally, through our work with the National Competitiveness Council, we are promoting a new competitiveness agenda, which tackles the traditional macroeconomic issues of costs, wages and infrastructure, while also addressing issues such as productivity, creativity and entrepreneurship.

We are involved in a large number and variety of projects. Our objective is that they will play a significant role in creating and maintaining a vibrant Irish enterprise sector and will positively contribute to the well-being of society at large. Over the past six months, Forfás has implemented a substantial reorganisation. New structures and new staff have combined to create an organisation which will continue over the coming months and years to meet the needs of clients. I would like to take this opportunity to express my appreciation to everyone within Forfás for the professionalism, enthusiasm and understanding which they have shown throughout this process.

Martin Cronin
Chief Executive

May 2003

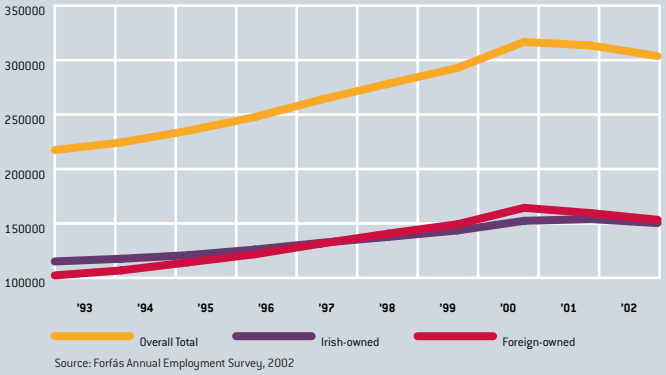
Overview Section >

Employment in Agency-Supported Companies

Total full-time employment in companies under the remit of Enterprise Ireland, IDA Ireland, Shannon Development and Údarás na Gaeltachta amounted to 304,000 in 2002, a decrease of 9,500 (-3.0 per cent) on the previous year. 2002 is the second year running in which there has been a net decrease in employment in agency-supported companies.

Figure: One

Permanent Full-Time Employment 1993-2002
Manufacturing and Internationally-Traded/Financial Services



Source: Forfás Annual Employment Survey, 2002

Figure 2 below highlights the components of the net change in employment. 25,500 jobs were created in manufacturing and internationally-traded services in 2002 but these job gains were offset by job losses of 35,000 during the same period. The net decrease in employment recorded in 2001 and 2002 is in marked contrast with the situation that pertained in the years immediately prior to this. In sectoral terms, most of the net decrease in employment has been concentrated in electrical and electronic equipment (including computers) and internationally-traded services (including software) reflecting the continued slowdown in global ICT markets. International financial services, which mostly comprises firms in the IFSC[3], was one of the few sectors in which a net increase in full-time employment was recorded in 2002.

There are now 13,000 fewer jobs in manufacturing and internationally-traded services compared to the peak of 317,000 recorded in 2000. It should be noted, however, that employment in these companies is still 40 per cent higher than it was at the beginning of the 1990s.

The overall net decline of 9,500 in 2002 comprises 6,000 fewer jobs in foreign-owned companies (bringing employment among this group to 153,500) and 3,500 fewer jobs among Irish-owned companies. Total employment in Irish-owned companies now amounts to 150,500.

Figure: Two

Job Gains, Losses & Net Change in Permanent, Full-Time Employment 1993-2002, Manufacturing & Internationally-Traded/Financial Services

Source: Forfás Annual Employment Survey, 2002

3 International Financial Services Centre

Regional Distribution of Employment Creation

Figure 3 shows the distribution of jobs created in agency-supported companies between the Southern and Eastern Region (Objective 1 in Transition) and the Border, Midland and West Region[4]. The Border, Midlands and West (BMW) Region has tended in the past to perform less satisfactorily than the rest of the country in terms of increasing and sustaining its employment in manufacturing and internationally-traded services.

The chart shows that the BMW Region accounts for 26.5 per cent of the population and 25.5 per cent of the labour force. In 1999, the Region accounted for 18 per cent of gross job gains in agency-assisted companies. By 2002, this share had increased to more than 21 per cent, although this is down from 24 per cent in the previous year. Forfás will continue to monitor the regional share of employment gains in agency-assisted companies into the future.

Figure: Four

Part-Time, Temporary and Short-Term Contract Employment 1993-2002* Manufacturing and Internationally-Traded/Financial Services

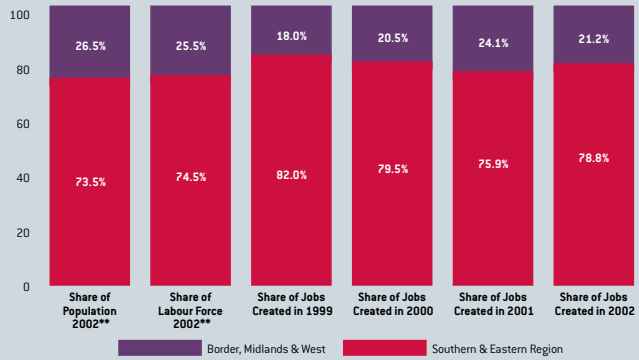
* Excludes companies under the remit of Shannon Development. Source: Forfás Annual Employment Survey, 2002

Part-Time, Temporary and Short-Term Contract Employment

In addition to the 304,000 persons employed full-time in manufacturing and internationally-traded services, 33,000 persons were also employed in part-time, temporary and short-term contract positions in 2002. Employment in this category has grown over the last decade and now accounts for almost 10 per cent of all jobs in agency-assisted companies. Taking the two categories of employment together (permanent full-time and temporary/part-time), there are now 334,000 persons employed in agency-assisted companies, up from 236,000 in 1993.

Figure: Three

Share of Jobs Created in Agency-Supported Companies by Region 1999-2002 Relative to Share of Population and Labour Force



** CSO Statistics Source: Forfás Annual Employment Survey, 2002

4 The regional divide used is the classification used by the European Union for regional aid purposes. The counties in the Southern and Eastern region are Dublin, Kildare, Meath, Wicklow, Carlow, Kilkenny, Waterford, Wexford, Cork, Kerry, Clare, Limerick and Tipperary. The Border, Midland and West Region accounts for the other 13 counties.

Expenditure by Agency-Supported Firms in the Irish Economy

Data relating to the direct expenditure of agency-supported companies in 2001 was compiled by Forfás and the agencies concerned (Enterprise Ireland, IDA Ireland, Shannon Development and Údarás na Gaeltachta) during 2002. The data highlights the contribution made by agency-supported companies to the economy through direct expenditure on payroll costs, Irish raw materials and services purchased in Ireland.

The data points to the fact that the overall output of firms in manufacturing and internationally-traded services and their expenditure in the economy continued to increase in 2001, albeit at a lower rate than in previous years. The overall sales of manufacturing and internationally-traded services companies increased by 9.4 per cent in 2001 (compared to 19.4 per cent recorded in the previous year's survey), while direct expenditure in the economy increased by 10.2 per cent (compared to 16.8 per cent recorded in the previous year's survey).

Direct expenditure by these firms in the economy totalled €34 billion in 2001, comprising payroll costs (€10.4 billion), Irish raw materials (€14.8 billion) and expenditure on Irish services (€8.8 billion). Irish-owned companies accounted for €15.5 billion (46 per cent) of this direct expenditure with raw material inputs accounting for the largest share. This is driven largely by the food and drink sector which purchases most of its raw material inputs domestically. Foreign-owned companies spent €18.6 billion directly in the economy and this is spread quite evenly across three categories - payroll costs, raw materials purchases and services purchased in Ireland.

Table: One

Direct Expenditure of Agency-Supported Firms in the Irish Economy

		Irish-Owned Firms		Foreign-Owned Firms		All Firms		
		2000	**2001**	2000	**2001**	2000	**2001**	Change
Sales	€m	21,579	**23,965**	66,205	**72,102**	87,784	**96,067**	9.4%
Payroll Costs	€m	3,837	**4,309**	5,470	**6,120**	9,307	**10,429**	12.1%
Irish Raw Materials	€m	7,589	**8,358**	6,107	**6,474**	13,696	**14,832**	8.3%
Services bought in Ireland	€m	2,562	**2,805**	5,338	**5,985**	7,900	**8,790**	11.3%
Direct Expenditure in the Economy	€m	13,988	**15,472**	16,915	**18,579**	30,903	**34,051**	10.2%
Direct Expenditure as % Sales	%	64.8	**64.6**	25.5	**25.8**	35.2	**35.4**	

Source: Annual Business Survey of Economic Impact, 2001 (co-ordinated by Forfás and administered by the Survey Unit, ESRI)

Corporation Tax Payments

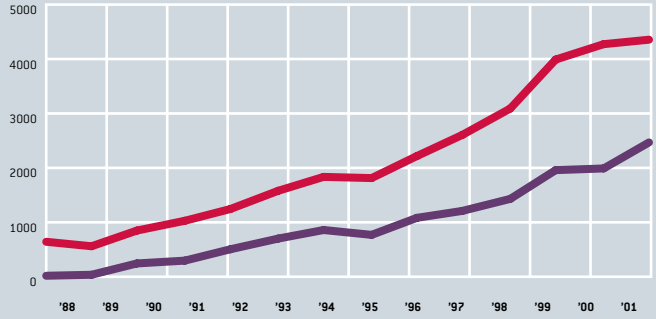
In addition to their expenditure in the economy, manufacturing and internationally-traded services companies provide a very significant direct return to the exchequer by way of corporation tax payments.

The total corporation tax yield from all sources was €4.8 billion in 2002[5], an increase of 10.3 per cent in real terms on the previous year. The most recent data in respect of the corporation tax payments of agency-supported companies in manufacturing and internationally-traded services relates to 2001. These show that agency-supported firms accounted for €2.4 billion (57 per cent) of the €4.2 billion total corporation tax take in that year.

Companies in the chemicals/pharmaceuticals sector accounted for €783 million (33 per cent) of the €2.4 billion, financial services companies linked to the IFSC accounted for just over €600 million (25 per cent) and other internationally-traded services companies (software etc.) accounted for €430 million of the total.

Figure: Five

Corporation Tax Payments (Constant 2002 Prices)



Source: Forfás Corporation Tax Survey, 2001

State Expenditure on Science & Technology

The Forfás annual publication, State Expenditure on Science & Technology, shows that Government allocations to scientific and technological activities in 2001 amounted to €1,760 million, an increase of €399.3 million, or 29.4 per cent over 2000 out-turn levels. This is mainly accounted for by an increase in public funds (Exchequer plus EU), which rose by 35 per cent in 2001 to €1,565 million. The balance of €195 million arises from income earned from the activities of the Government Departments and agencies.

5 Source: Exchequer Returns for 2002, Department of Finance

Table: Two

State Expenditure on Science & Technology by Government Department, 2000-2001

	Total Public Funds (€m)		
	2000 Outturn	**2001 Allocation**	% change
Education and Science	743.3	**927.6**	25%
Enterprise, Trade & Employment	138.3	**177.0**	28%
Public Enterprise	44.0	**124.3**	182%
Agriculture and Food	98.3	**118.4**	20%
Government Offices	53.2	**85.3**	61%
Marine and Natural Resources	27.9	**39.3**	41%
Social, Community and Family Affairs	8.0	**33.6**	319%
Health and Children	23.3	**28.9**	24%
Environment and Local Government	12.2	**15.2**	24%
Arts, Heritage, Gaeltacht and the Islands	5.6	**8.2**	46%
Finance	4.7	**6.0**	28%
Taoiseach	0.6	**0.7**	17%
Total	**1159.5**	**1564.7**	**35%**

Source: Forfás, State Expenditure on Science & Technology 2001

Table 2 above illustrates the share of the total public allocation for 2000 and 2001 accounted for by Government Departments. In 2001, almost 60 per cent of the total public allocation can be attributed to the Department of Education & Science, followed by the Department of Enterprise, Trade & Employment (11 per cent) and the Department of Public Enterprise (8 per cent).

Research and Development in the Public Sector

Altogether, research and development (R&D) represents about a quarter of public science and technology expenditure and the 2001 budget allocation amounted to €342 million. This represents a very significant increase of €98 million over the actual expenditure in 2000 of €244 million (see Table 3).

Table: Three

Public Funding of R&D, 2000-2001 (€million)

	2000 Outturn	2001 Allocation
Exchequer	175.78	285.09
EU	68.28	56.74
Total Public	**244.06**	**341.84**
Earned income	76.88	75.07
Total	**320.95**	**416.90**

Source: Forfás, State Expenditure on Science & Technology (2000 & 2001 publications)

The major contributors to this increased funding are:

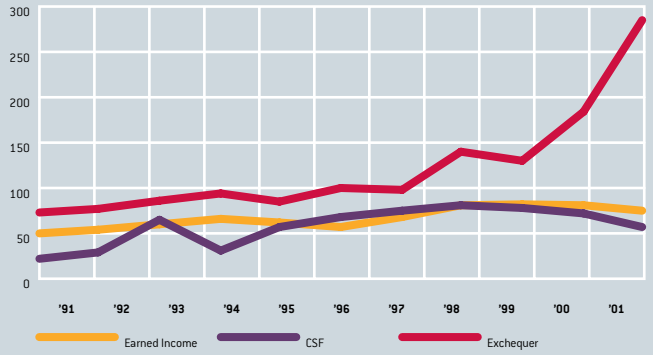
- The Department of Education and Science: €39.1 million
- The Department of Enterprise, Trade and Employment: €28 million
- The Department of Public Enterprise: €10.6 million

Other significant increases are in the Department of Agriculture, Food & Rural Development (€7.5 million) and the Department of Communications, Marine & Natural Resources (€7.5 million).

Figure 6 right depicts the sources of funds for total public R&D expenditure over the past decade. The most notable aspect is the fact that exchequer funding has significantly increased its percentage of the total funding from 50 per cent in 1991 to 68 per cent in 2001, which is an increase in real terms of €212 million (292 per cent) since 1991. This represents an annual growth rate of 14.6 per cent over the last decade. The contribution of EU Community Support Framework Programmes has decreased in real terms from €81 million in 1998 to €57 million in 2001.

Figure: Six

Sources of Total R&D Funding 1991-2001 (2001 prices, €million)



Source: Forfás, State Expenditure on Science & Technology, 2001

Gross Domestic Expenditure on Research & Development (GERD), 2001

Data on gross expenditure on research and development (GERD) for Ireland are drawn from Forfás surveys for the three sectors that constitute the national R&D system:

- Business expenditure on research and development (BERD)
- Higher-education expenditure on research and development (HERD)
- Government expenditure on research and development (GOVERD)

Table: Four

Total Expenditure on Research and Development, 1993-2001

	1993 €m	1995 €m	1997 €m	1999 €m	**2001 €m**
BERD	343.4	470.1	612.4	783.6	**916.8**
HERD	106.9	137.1	178.4	249.5	**294.3***
GOVERD	51.5	60.2	65.4	63.9	**127.7**
GERD (€m)	501.8	667.4	856.2	1,097.0	**1338.8**

Source: Forfás (various surveys) * estimate

Table 4 above shows the trend from 1993 to 2001.

Gross expenditure on R&D continued to grow in aggregate terms between 1999 and 2001. Total GERD amounted to €1,338.8 million in 2001 up from €1,097 million in 1999.

Table 5 shows the trend of gross expenditure on research and development as a percentage of gross national product (GNP). GERD as a percentage of GNP has seen a steady increase since 1993. However, in 2001 there was a decline relative to the position in 1999. There was a decrease in the rate of growth of BERD in this period compared with earlier periods and this, combined with the rapid increase in GNP in this period, led to the slowing of the overall growth rate of GERD.

Table: Five

Gross Expenditure on R&D as a Percentage of GNP, GDP, 1993- 2001

	1993 €m	1995 €m	1997 €m	1999 €m	**2001 €m**
GERD (€m)	502	667	856	1,097	**1,338.8**
GERD as a % GNP	1.30	1.43	1.45	1.45	**1.38**
GERD as a % of GDP	1.16	1.27	1.28	1.24	1.17
EU Average as a % GDP	1.92	1.81	1.80	1.86	**1.88**
OECD Average as a % GDP	2.25	2.11	2.16	2.21	**2.24**

Source: Forfás (various surveys)

Activities in 2002 >

Forfás' activities in the area of policy advice and co-ordination in 2002 were driven by three distinct, but cross-cutting themes:

- Building a science, technology and innovation infrastructure in Ireland that is required to underpin the next stage of our economic development;
- Encouraging actions across a range of domestic public policies designed to sustain the competitiveness and growth of our existing industries;
- Working with Government Departments on shaping EU and other international policies that impact on enterprise and technology development in Ireland.

Building Ireland's Science, Technology & Innovation Infrastructure

Positioning innovation and technology at the centre of Irish enterprise development over the next decade requires a continuation of the rapid growth in Ireland's investment in science, technology and innovation. Ireland's total investment in research and development (R&D), from both public and private sources, was estimated at €1,339 million or 1.17 per cent of GDP in 2001. Although this represents a large increase on previous levels of research expenditure relative to GDP, it is still significantly below that of other knowledge intensive economies, such as Sweden (3.8 per cent), Finland (3.2 per cent), Japan (3.0 per cent), USA (2.8 per cent), South Korea (2.7 per cent), Netherlands (2.1 per cent), Denmark (2.1 per cent), Taiwan (2.1 per cent) and the UK (1.9 per cent).

The EU has set itself a target of increasing research investment to three per cent of GDP by 2010, in the context of achieving the objective of the Lisbon Strategy.

Ireland is committed to making its contribution to this effort. The size of the allocations by Government to science, technology and innovation in the current National Development Plan indicates its commitment to technological development. The allocation for the period 2000-2006 (€2.48 billion) is almost five times the amount invested during the five year period 1994-1999 (€0.5 billion).

Science Foundation Ireland (SFI) has also received increased research funding in the 2003 Budget Estimates, again showing Government commitment to research excellence and a pro-active approach to moving towards the levels of research investment required to ensure Ireland's development as a knowledge intensive economy.

The large increase in public research investment over the coming years presents the challenge of ensuring that these investments deliver the economic and social benefits that they are intended to achieve. This will require monitoring and reviewing cost effectiveness, efficiency and coherence in all aspects of science, technology and innovation policy formulation and implementation. At the request of the Government, the Irish Council for Science, Technology & Innovation (ICSTI), chaired by Dr. Edward Walsh and supported by Forfás, established a Commission comprising relevant experts, both from Ireland and overseas, to bring forward proposals on developing an appropriate overarching national framework for research and technological development.

The Commission's report, submitted to An Tánaiste and Minister for Enterprise, Trade and Employment in December 2002 for consideration by Government, has proposed a number of measures for improving the structures and mechanisms for the formulation and implementation of national policy for science, technology and innovation.

Other key initiatives in the efforts by Forfás and ICSTI to progress Ireland's science and technology infrastructure in 2003 focused on the following areas.

On the occasion of the first meeting of the ICSTI Commission in June 2002 pictured (l to r) were **(back row)** Professor Sir John Cadogan, Mr Esko-Olavi Seppälä, Dr Don Thornhill and Mr Martin Cronin **(front row)** Dr Ruth Barrington, Mr Brian N. Sweeney, Ms Mary Harney, T.D., Dr Edward M. Walsh (Chairman), Professor Dr Frieder Meyer-Krehmer.

Measuring and Evaluating Research

Work is already well progressed on improving arrangements to monitor and assess the impact of the public investments in science, technology and innovation. In Autumn 2002, ICSTI published a report entitled Measuring and Evaluating Research. The report examines the rationale for the public funding of research and the tools used to measure and assess the inputs and outputs from research. To achieve this, it reviewed the principal indicators and techniques used internationally to measure science, technology and innovation (STI) policy activities and their impacts. It provided an account of the current situation in Ireland with respect to STI indicators and their collection as well as the application of STI evaluation tools. The report concluded that expertise in indicators and evaluation techniques for STI policy should be more widely embedded in public policy agencies in Ireland.

It is particularly important that the Government is in a position to evaluate the impact of the €600 million investment by Science Foundation Ireland (SFI) in the period 2001-2006 for research in biotechnology and information and communications technologies. To assist in the evaluation process, a study was commissioned by Forfás to assess the baseline research situation in biotechnology and in ICT before SFI came on stream. This study commenced in mid 2001, was completed by end 2002, and was published early in 2003 under the title Baseline Assessment of the Public Research System in Ireland in the areas of Biotechnology and Information and Communications Technologies.

Utilising Intellectual Property for Competitive Advantage

Following the ICSTI Statement on Commercialisation of Research published in February 2001, new issues were raised in relation to intellectual property from publicly funded research and linking third-level research and industry. In particular, ICSTI explored the benefits, or otherwise, of possible new guidelines or legislation for intellectual property management. ICSTI also examined best practice in other countries and, during this year, led a delegation to Denmark and Switzerland to investigate, in a more detailed manner, the practices for IP management operating in those countries. Drawing from this work, in early 2003 ICSTI published a Statement entitled Utilising Intellectual Property for Competitive Advantage, which covers the issues involved and recommends the development of an agreed national code of practice involving all funding departments and agencies, research institutions and the enterprise sector.

Industrial Design and Development

Design and Development, an ICSTI Statement on initiatives to strengthen the implementation of strategic design practices in industry was completed in 2002 and published in early 2003. This work benchmarks product design and development practices in indigenous, non-food manufacturing firms and, in addition, identifies appropriate mechanisms to encourage firms to improve their strategic use of design.

R&D Tax Credits

The quality and volume of publicly-financed research being carried out in our universities and research institutes is an important driver of research activity in the private sector. Another key stimulus is the tax system. In 2002, Forfás, in conjunction with Enterprise Ireland and IDA Ireland, submitted proposals, for consideration as part of the Budget 2003 deliberations, for the introduction of an R&D tax credit designed to increase private sector R&D expenditure in Ireland. Forfás will encourage implementation of the R&D tax credit proposals in 2003 in order to ensure that Ireland is not disadvantaged as an investment location of choice.

Science, Technology & Innovation Awareness Programme

The declining proportion of students taking courses in sciences, engineering and technology at third-level, left unchecked, will inevitably impact on Ireland's ability to develop the necessary scientific, technological and research capabilities needed to support growth in identified high value-added sectors. The challenge of reversing this trend has been taken up across the development agencies and in particular by the Science, Technology and Innovation Awareness Programme (STIAP), which is managed by Forfás on behalf of the Department of Enterprise, Trade and Employment.

The main activities of the Programme in 2002 were:

- **Science Week Ireland** (November 10-17): The objective of Science Week Ireland is to improve the public perception of science and technology. The target audience is young people, their parents and the general public. Some 200 or more events were organised, with festivals in selected larger towns and cities.
- **Primary Science Day** (December 3): The objective of Primary Science Day is to encourage children of primary school age to discover the fun of science, while also linking the activity to the revised primary school curriculum. The event is sponsored by the Department of Education & Science. The theme in 2002 was electricity. A kit including supporting information, worksheets and a range of classroom materials was provided to enable children gain hands-on experience of science.
- **All Island Innovation Awards 2002** (December 9): The objective of the Innovation Awards is to reward and encourage innovative activity among Irish firms, large and small. In 2002 the Awards were jointly sponsored by InterTradeIreland, Invest Northern Ireland, Forfás and The Irish Times. The overall winner of the 2002 Awards was Ulster Carpets. The company won the award for its innovation in the fields of design, design software and proprietry installation software. It has also moved towards providing customised carpets for the residential market.
- **The Science & Technology Journalism Awards**: The objective of these awards is to recognise excellence in science writing and to acknowledge journalists who do most to increase the level of understandable and accessible information on science and technology. The awards ceremony took place in Dublin in February 2003. The overall winner was Mary Mulvihill, author of Ingenious Ireland.

Sustaining National Competitiveness

Growth and employment across a wide range of industrial sectors in Ireland is being put at risk by price and wage inflation. Ireland's relative cost competitiveness against other main competitors deteriorated significantly in 2002, with consumer price inflation running at more than twice the EU average. Comparative Consumer Prices in the Eurozone & Consumer Price Inflation in the Changeover Period, a report published by Forfás in June 2002, estimated that by 2002, following several years of rapid inflation, Ireland had become the second most expensive country in the eurozone for consumer goods, after Finland.

Moreover, at around three times the EU average, nominal wage costs are also rising rapidly. EU data now estimates that average Irish nominal wages for full-time employees was 3.6 per cent above the eurozone average in 2001, with average wage levels forecast to rise to 13 per cent above the average by 2003. The competitiveness of Irish goods and services in many of our main export markets was further undermined by the appreciation of the euro against sterling and the dollar in 2002.

National Competitiveness Council

A major challenge for Irish enterprise policy in 2002 was to encourage actions across a range of public policies that help to maintain Ireland's competitiveness and protect existing employment levels and enterprise activities. Much of this work was carried out under the auspices of the National Competitiveness Council (NCC), chaired by Mr William Burgess. The NCC was established by Government in 1997 to advise on developments in national competitiveness and to recommend actions to Government to protect and improve Ireland's international competitiveness standing. Forfás acts as Secretariat to the NCC.

In November 2002, the NCC published the fifth Annual Competitiveness Report (ACR) and Competitiveness Challenge, which together cover the full spectrum of competitiveness issues and represent the Council's main policy statements for the year. The ACR examined Ireland's international competitiveness and in particular highlighted a number of threats to our economy. The most significant threats which the Council identified include rising costs, increasing wages, a higher than acceptable inflation rate and lower investment in infrastructure than is required. The Competitiveness Challenge then made a number of policy recommendations to tackle these issues using the analysis contained in the ACR.

The NCC also made a number of submissions during the year to work being carried out by other Government/public bodies. These included submissions on the EU White Paper on Transport, the Competition Authority's study into the insurance market in Ireland, the Government's "Towards Better Regulation" consultation process and to the Task Force on Physical Sciences. In November 2002, the NCC published Entrepreneurship in Ireland, which examined the factors which motivate entrepreneurs and identified potential barriers to entrepreneurship.

Infrastructure

Strong economic growth in recent years has placed significant pressures on many of the key infrastructures required to promote enterprise development. In 2002 Forfás worked closely with the other enterprise development agencies and relevant Government Departments to ensure that Ireland can provide a world-class physical environment at the lowest possible cost to support Ireland's competitiveness.

Energy: Building on previous work on infrastructure investment requirements and supply-demand balances in electricity and gas, in 2002 Forfás undertook an assessment of the policy requirements to facilitate an efficient and competitive national energy market. Following detailed consultations with the Government, the Commission for Energy Regulation (CER), Eirgrid, ESB, IBEC and others, Forfás submitted proposed reforms to the CER as an input to their ongoing review of electricity market trading arrangements in Ireland for 2005. Forfás also completed an evaluation of the potential of the electricity transmission and distribution network to support the development of agency business parks, webworks facilities and large scale utility intensive sites being proposed by Enterprise Ireland and IDA Ireland.

Online Regional Database of Infrastructure: In order to facilitate a more efficient spatial distribution of industry, in 2001 An Tánaiste requested Forfás to construct and maintain a database of the physical and social infrastructure in the regions to help identify the developmental capacity / potential of various locations and regions and pinpoint areas in need of improvement. With funding from the Government's Information Society Fund, the database was completed in 2002 and takes the form of an Internet-based databank of tables and maps of physical and social infrastructure and industrial development agency-supported enterprises. The database can be accessed at www.infrastructure.ie.

Pictured at the launch of the National Competitiveness Council's Annual Competitiveness Report 2002 and Competitiveness Challenge 2002 were, Ms Mary Harney, T.D., Tánaiste and Minister for Enterprise, Trade & Employment; Mr Martin Cronin, Chief Executive, Forfás and Mr William Burgess, Chairman, National Competitiveness Council.

Infrastructure Corridors: At the request of the Cross-Departmental Team on Infrastructure and Public Private Partnerships (PPPs), in 2002 Forfás and IDA Ireland, together with TES Engineering Consultants, examined the possibility of bundling certain types of infrastructure development as part of "infrastructure corridors". Through an analysis of international and domestic experience, engineering assessments and interviews with relevant stakeholders in Ireland, the Forfás review indicated that a corridor approach to infrastructure provision would be both beneficial and technically feasible if the appropriate routes and lands are identified and protected. To date, the draft Sligo and Mayo County Development Plans have adopted Forfás recommendations with regard to infrastructure corridors and have included the infrastructure corridor provision into their respective land use strategies.

Water and Wastewater Infrastructure: In 2002, Forfás completed a study of 27 locations including those identified in the National Spatial Strategy as gateways and development hubs, to assess the capacity of their water and wastewater treatment infrastructures to meet the requirements of future population growth and enterprise development. The study identified nine centres of population that will require additional water treatment capacity and 14 centres that will require additional wastewater treatment capacity.

Telecommunications: In addition to being a key driver of growth in the Irish economy over the last decade, developments in the telecommunications sector are also critical for the promotion of the broader knowledge economy and information society in Ireland. In particular, the availability of advanced broadband technologies is critical for Ireland to develop as an eBusiness hub and for the promotion of regional development. Benchmarking analysis undertaken by Forfás in 2002 indicated that while significant progress has been achieved in this area, Ireland still compares poorly relative to other countries on a number of metrics monitoring the price, quality, and availability of broadband telecommunications services. Forfás has advocated the need for Government investment to accelerate the development of broadband infrastructure in advance of demand, and has worked closely with the Department of Communications, Marine & Natural Resources to ensure that the broadband priorities of the development agencies are incorporated in the current Government broadband investment initiatives.

Skills

Sustaining the competitiveness of Irish industry will critically depend on the skills and flexibility of the workforce. This is particularly important in an environment where Ireland is facing increased competition from countries that are raising the skill content of their labour force as part of national strategies.

Much of Forfás' work in this area in 2002 was carried out under the auspices of the Expert Group on Future Skills Needs. The Expert Group was established by Government in 1997 to develop national strategies to tackle the issue of skills needs, manpower estimating, training for business and education in Ireland. Forfás provides the Secretariat to the Group.

During 2002 the Expert Group commissioned four studies on sectors of high value to Ireland in pursuing its strategic goal of becoming a knowledge-based economy. These reports examine future skills needs and make appropriate recommendations for the following industry sectors:

- Biotechnology
- Construction
- Engineering
- Food Processing

The report, Supply and Demand of Skills in the Food Processing Sector was published in April 2003. The other reports will be published later in 2003. An over-arching theme emerging from all these studies is the need of both emerging and traditional industry sectors for graduates with higher level (doctoral and post-doctoral) skills and education.

Jennifer Douglas, Competitiveness and Innovation Division, Conor Hand, Competitiveness and Innovation Division and Donna McCabe, Enterprise Division.

Supply and Demand of Skills in the Food Processing Sector

In its report on the skills needs of the food processing sector the Expert Group highlighted how the industry, education institutions, training and State support organisations need to respond to the significant changes that the industry is currently experiencing. The response to these changes will be a key determinant of whether or not Ireland can retain a vibrant and successful food processing industry into the future.

Although the report found that there are currently no indications that there is a need to increase the overall number of graduates coming into the food sector, there are clear indications of a need to review and rebalance the content of third-level curricula relating to the sector. Food scientists in the future will need to have a more broad understanding of the management needs of the industry and managers will need to acquire a clearer appreciation of the importance of long-term planning if the industry is to continue to flourish.

Third National Vacancy Study

The Third National Vacancy Study was commissioned by the Expert Group to examine the incidence, level, nature and consequences of vacancies in both the private and public sector. This was the first time that the public sector was included in the study of national vacancies. The report found that vacancy rates were higher in the intermediate and higher skilled jobs in the public sector while the majority of vacancies in the private sector were in intermediate and lower skilled jobs. The fall in private sector vacancy rate from six to three per cent since 2000 illustrates the slow-down in employment growth.

Benchmarking Education and Skills

Nationally, the Expert Group recognised the need for the establishment of a systematic process of benchmarking education and training in Ireland against other developed countries. A study, entitled Benchmarking Education and Training in Ireland, brings together the most up-to-date data from existing comparative sources of education, training and labour market information. The report highlights the trend of an increasingly educated population, although there are still areas that need to be addressed. It recommends that that key areas on which policy should focus include: increasing participation and graduate rates of males to upper secondary level improving third level completion rates particularly in Institutes of Technology; and encouraging increased adult participation in life long learning and training.

Attitudes to CAO Choice

The Expert Group, in order to establish why certain career choices are made and to identify the factors that CAO applicants consider when making a choice on further education and future careers, undertook a survey of over 700 students who had completed CAO application forms. The study aimed to investigate how choices can be influenced and therefore how to design effective promotional activity on key skills areas.

The study found that personal interest and ability in a subject area are the most significant factors influencing choice of Leaving Certificate subject and CAO course and that any campaign directed at increasing participation rates should take these factors into account. Awareness initiatives should focus on younger age groups as students may already be locked into certain career choices on the basis of subject choice.

National Skills Awareness Campaign

The National Skills Awareness Campaign, which is managed by Forfás, operates under the aegis of the Expert Group on Future Skills Needs. The mission of the Campaign is to promote the work undertaken by the Expert Group and to encourage school leavers to consider careers in specific sectors. Amongst the activities undertaken during the year were:

- Production of an interactive CD-ROM for second level students which explores options in a range of careers across engineering, IT and the sciences. It was distributed to all secondary schools in the republic in early 2003. The CD-ROM was launched by Mr Noel Dempsey, T.D., Minister for Education and Science;
- Participation in major career exhibitions such as FÁS Opportunities 2002 and The Irish Times Higher Options Conference;
- The production and distribution of a video of the "Just the Job" TV series;
- The publication of a book entitled Engineering as a Career
- The publication of an events calendar and the GETSET newsletter, in association with the Science, Technology and Innovation Awareness Programme (also run by Forfás) and the STEPS campaign managed by the Institution of Engineers of Ireland;
- The "Change of Mind" campaign was undertaken to raise the level of awareness of potential opportunities in the ICT sector. The campaign was co-sponsored by ICT Ireland and The Expert Group and was aimed at encouraging Leaving Certificate students to avail of their Central Applications Office (CAO) Change of Mind Form before the closing date of July 1 and apply for one of the many courses which provide a route to this sector.

eBusiness and Digital Content

Given the emergence of new information and communications technologies (ICT) and the speed of eBusiness development, changes are required to strengthen and improve the legal and regulatory framework. In October, Forfás published Legislating for Competitive Advantage in e-Business and Information and Communications Technologies. Among the recommendations is a proposal to establish specialist technology courts (eCourts) to adjudicate on legal disputes relating to ICT, eBusiness and intellectual property and to provide a secure, certain and quick legal system for knowledge intensive business.

In November 2002, Forfás published A Strategy for the Digital Content Industry in Ireland, prepared at the request of the Department of Enterprise, Trade and Employment and involving Enterprise Ireland, IDA Ireland, the Department of Enterprise, Trade and Employment and the Commission for Communications Regulation in the formulation of a co-ordinated development strategy for the industry.

Four market sectors were identified where Ireland has the potential to develop internationally recognised competitive advantage and that will be jointly targeted by Enterprise Ireland and IDA Ireland for promotion. These are:

- eLearning
- Wireless Services
- Digital Libraries
- Non-Media Applications

Orla Phelan, National Accreditation Board and Andrew Stockman, Competitiveness and Innovation Division.

Promoting a Supportive International Environment for Irish Enterprise

European Union Issues

Enterprise and technological development in Ireland must operate within a wider international economic and regulatory environment, which has a significant impact on the policies that can be applied here. In particular, decisions taken by the European Union (EU) and its Member States often have significant implications for Irish enterprise development across a range of dimensions.

Research: EU funding has been crucial to Ireland's efforts to grow its research base over the last decade. The implementation and funding of the EU's research and technology development policy is done through multi-annual Framework Programmes. The Sixth Framework Programme 2002-2006 (FP6) was adopted in June 2002 with the first calls for proposals launched in December 2002. Over the course of the year, Forfás provided policy advice to the Department of Enterprise, Trade and Employment in respect of EU research policy and on the negotiations of FP6. Forfás also monitored Irish participation rates in EU Framework Programmes and co-ordinated the National Delegates and National Contact Points for each of the specific programmes within the Framework Programme. Other important EU research initiatives on which Forfás advised included the process of benchmarking of national research and development policies, promoting women's participation in research, and the establishment of a European Strategy Forum on Research Infrastructures. All these initiatives constitute steps towards the construction of a European Research Area, a key component of the EU's Lisbon Strategy of making the EU the world's most competitive and dynamic knowledge-based economy by 2010.

Climate Change: In 2002, the European Commission published two key proposals on addressing growth in European Greenhouse Gas (GHG) emissions. The first dealt with arrangements for emissions trading (ET) within Europe, while the second outlines proposals for an EU wide energy tax. Implementation of the ET Directive would facilitate the enterprise sector to achieve a significant proportion of its targeted reductions in GHG emissions, and is likely to come into force for an interim three year period, 2005 - 2008. During the course of 2002, Forfás continued to work with the Department of Enterprise, Trade and Employment in order to ensure consistency between domestic and EU proposals to curb growth

Marking the retirement of John Travers pictured above are Peter Cassells, Chairman, Forfás; John Travers, former Chief Executive, Forfás and Martin Cronin, Chief Executive, Forfás.

in GHG emissions from Irish industry and to minimise the negative competitiveness implications for industry in Ireland of measures, both domestic and European, designed to allow Ireland to meet our international global warming commitments.

EU Industrial Policy: EU decisions across a range of other public policy areas have the potential to affect the competitiveness and development of industry in Ireland. Key EU policies in this regard include sectoral development strategies, EU competition policy, enforcing and completing the Single European Market, EU rules governing financial supports to industry and EU environmental and social legislation. During 2002, the European Commission initiated consultations with Member States on these framework conditions for enterprise development in Europe, which has culminated in a Communication on Industrial Policy by the Commission in December 2002. Through the Department of Enterprise, Trade and Employment, Forfás submitted views on the role of the EU in supporting enterprise development in national economies, emphasising the need for a coherent approach to EU trade, social, environmental and competition policies.

"Doha Round" of World Trade Organisation Negotiations

With the exception of the EU, no other supra-national or international body has a greater influence on Irish enterprise development than the WTO. As the body that sets the rules of international trade, the WTO has regulated and progressively liberalised trade relations between Ireland and nearly all countries outside the EU, including the United States and most of Latin America and Asia. Between 1973 and 2001, the share of Irish merchandise trade conducted with non-EU countries grew from 26 per cent to 40 per cent, more than outpacing the growth of Irish trade with non-UK EU countries.

At the 4th WTO Ministerial Meeting in Doha (Qatar) in November 2001, Ireland, together with most other countries in the world, agreed to launch a new round of comprehensive WTO negotiations aimed at addressing the remaining barriers to trade and investment. WTO rule-making as part of the Doha Round will shape the international regulatory landscape in which Irish enterprise policy operates. In 2002, Forfás worked closely with the Department of Enterprise, Trade and Employment and with industry representative associations to identify Ireland's WTO priorities from an enterprise development perspective. This work culminated in a report by Forfás, World Trade Organisation Negotiating Objectives for Irish Enterprise Policy, published in February 2003.

The report concludes that Ireland's efforts to position itself as a global hub in certain tradable services, digital content and other new industries will, in part, depend on the development of seamless global marketplaces in these industries as a result of WTO rule-making. Encouraging more Irish SMEs (small and medium size enterprises)to trade outside the EU market may depend on WTO-led simplification and harmonisation of international trade procedures and data requirements. Removing barriers to outward investment by the growing

cohort of Irish multinational companies will be influenced by the WTO's ability to extend the multilateral trading system to incorporate foreign direct investment flows. In addition, achieving adequate returns on growing Irish public and private investment in research and development will be supported by an effective multilateral system for the protection of intellectual property rights.

US/Irish Economic Co-Operation

The annual International Trade and Investment Report 2001 was published in January 2002 and an update to this was issued in June. The report highlighted the growing importance of the US as a partner for Irish industry for flows of goods, services, capital and technology. In September 2002, a US/Ireland business summit was convened in Washington D.C. to bring together business, academic and government leaders from the US, the Republic of Ireland and Northern Ireland. The aim of the Summit, the preparations for which were supported by Forfás and the development agencies, was to provide a forum for dialogue on key business issues affecting Irish-US economic relations and to produce new policy initiatives to promote economic, academic and business collaboration and co-operation between both sides of the Atlantic.

Summit discussions focused on three sectors of greatest potential for future co-operation and collaboration:

- Information and Communications Technology (ICT);
- Biotechnology; and
- Financial Services.

Issues covered included corporate governance, national competitiveness, new public and private sector priorities, privacy and security issues, broadband, intellectual property and regulatory issues, best practice for the commercialisation of research and opportunities for joint ventures and strategic alliances.

Wendy Hunter, Secretariat; Rhona Dempsey, Science and Technology Division; Keith Dunne, Facilities Department and Aideen Fitzgerald, Competitiveness and Innovation Division.

The Irish National Accreditation Board >

Dr Máire C. Walsh
Chairperson

The National Accreditation Board (NAB) is Ireland's national body within a European network of accreditation bodies with responsibility for accreditation in accordance with the harmonised EN 45000 series of European standards and the relevant International Organisation for Standardisation (ISO) standards and guides.

NAB, as the national body for the accreditation of certification bodies, laboratories and inspection bodies is a signatory to the multilateral agreements (MLAs) for Europe through the European co-operation for Accreditation (EA) and world-wide through The International Laboratory Accreditation Co-operation (ILAC) and The International Accreditation Forum (IAF). Thus NAB plays a key role in guaranteeing the access of Irish products to both the EU and worldwide markets. Its activities make certain that accredited certificates and test results produced in Ireland are acceptable worldwide and as a result greatly reduce technical barriers to international trade.

NAB is also the national statutory monitoring authority for the OECD Good Laboratory Practice (GLP) Scheme under S.I. No.4 of 1991 as amended by S.I. 294 of 1999.

NAB Functions

There are six distinct functions of NAB, each operating to specific European and International standards and/or regulations.

Laboratory Accreditation

Laboratory accreditation granted by the NAB provides a formal recognition of the competence of the laboratory to perform specific tests.

During 2002 NAB awarded accreditation to nine laboratories, bringing the total to 131. There were 70 enquiries and 16 applications in hand at year end.

During the year NAB carried out 87 surveillance inspections on accredited laboratories within the laboratory accreditation programme.

Accreditation of Certification Bodies

The NAB accredits certification bodies operating product certification, quality system certification and certification of personnel. It also accredits certification bodies for environmental management systems (EMS) certification to standards such as the EN ISO 14000 series and EMAS - the EU Eco Management and Audit Scheme, and Information Security Management Systems (ISMS).

At the end of 2002 NAB had accredited one certification body as a Certification Service Provider (CSP) for the new eCommerce accreditation scheme in support of the EU Directive on eCommerce. At the end of 2002 NAB had also accredited four certification bodies for Quality Management Certification, three certification bodies were accredited for Product Certification and one certification body was accredited for Environmental Management Certification. These certification bodies have, in turn, certified more than 1,000 organisations to the ISO 9000 series of standards and more than 100 organisations to ISO 14001 under NAB accreditation.

Accreditation of Attestors and Attestation Bodies

Attestation is the examination of the conditions under which tenders are sought for large contracts offered by the water, energy, transport or telecommunications sectors (utilities). The accreditation criteria are in accordance with the European Standard EN 45503 and NAB regulations. At the end of 2002 one body was accredited to this standard.

Accreditation of Inspection Bodies

NAB accredits bodies whose work may 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. NAB accredited one inspection body during 2002.

Good Laboratory Practice

The NAB 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 2002 five test facilities held GLP Compliance Statements under this programme.

National Competent Body for EMAS

NAB is the designated competent body in Ireland for the registration of sites participating in EMAS. During 2002 NAB registered eight sites 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. 761/2001 of the European Parliament and the Council.

National Accreditation Board

Dr Máire Walsh (Chairperson)
State Chemist

Mr Tom Beegan [6]
Director General, Health and Safety Authority

Mr Raymond Byrne
Lecturer in Law, Business School
Dublin City University

Mr Donal Connell [6]
Vice President, 3Com

Mr Tom Dempsey (ex-Officio)
Manager, National Accreditation Board

Mr Paul Kelly
Director, Building Materials Federation, IBEC

Dr Fiona Kenny
Consultant Microbiologist, Sligo General Hospital

Mr Iain Maclean
Director, Environmental Protection Agency, EPA

Mr Michael Maloney
Chief Executive Officer, Bord Glas

Mr David Moore
Inspector, Environment Division
Department of the Environment and Local Government

Mr Tom Teehan
Chief Inspector, Department of Agriculture & Food

Dr Patrick Wall
Chief Executive, Food Safety Authority of Ireland, FSAI

Mr Joe Rowley
Director of AGB Scientific Ltd retired in June 2002

6 Appointed in June 2002

Science Foundation Ireland >

Dr Patrick Fottrell
Deputy Chairman

The establishment of Science Foundation Ireland (SFI) as a sub-committee of Forfás in 2000 arose from work carried out by the Irish Council for Science, Technology and Innovation (ICSTI), the Technology Foresight process and Forfás. €646 million has been allocated in the Productive Sector Operational Programme of the National Development Plan (NDP) 2000-2006 for this purpose.

While the Director General, Dr William C. Harris was appointed in mid 2001, the establishment of the SFI Board and the senior appointments of the Directors of Information and Communications Technology (ICT) (Dr Alastair Glass), Biotechnology (Prof. John Atkins) and Corporate Affairs (Mr Mattie McCabe) took place in late 2001 and early 2002. In the first quarter of 2002 the major structural arrangements for the establishment and development of SFI were put in place.

Mr Brian Sweeney, Chairman, Siemens Ltd. was appointed Chairman of the Board with Dr Patrick Fottrell, formerly President of NUI Galway appointed as Deputy Chairman. The Board membership comprises distinguished scientists, academic leaders and business leaders from Ireland, India, the US and Europe. An inaugural meeting of the Board took place on 30, 31 January 2002. To date a total of five Board meetings have been held.

The Board has established a number of committees and working groups to assist in its corporate governance, strategy and policy responsibilities.

- Board Sub Group on Programme Grants
- Financial Oversight (Audit) Sub Group
- Management Development and Remuneration Committee
- Board Sub Group on Metrics & Evaluation
- Board Sub Group on Salaries
- Board Sub Group on the Schemes of SFI funded Researchers

At its first Board meeting in January 2002 the SFI Board assessed and approved a range of new research programmes following the recommendations of the Director General. The new programmes include:

- **SFI Investigator Programme Grants** for talented researchers within Ireland or overseas researchers already working in Ireland;
- **SFI Fellow Awards** to support highly competitive research programmes conducted by Irish and international scientists within Ireland;
- **SFI Centres for Science, Engineering and Technology Grants (CSETS)** to fund scientists who will build collaborative, internationally competitive research clusters allied to industry;
- **E.T.S. Walton Visitor Awards** to attract researchers to Ireland for normally up to one year;
- **SFI Workshop and Conference Grants** to support workshops and conferences sponsored by or involving Irish scientists and research bodies and aimed towards an international scientific audience.

Activity across the range of SFI Programmes significantly increased in 2002. There was a substantial build up of programmes for SFI and it is now funding research projects with a combined financial commitment of over €200 million over five years. The financial allocation to SFI for 2002 amounted to €35 million to meet programme costs as well as administration expenses, and this was fully expended.

The majority of expenditure to date relates to leading researchers under the Investigator and Fellows Programme, as well as the E.T.S. Walton Programme. In addition a first call for proposals under the Centres for Science, Engineering and Technology (CSETS) Programme was made in the latter half of 2002. Three awards were made totalling €42 million to NUI Galway, Royal College of Suurgeons and Universtity College Cork.

SFI will continue to significantly increase its activities in 2003 and under the Estimates 2003 process SFI has been allocated a sum of €70 million.

To complement these strategic investments, SFI will also assume overall responsibility in 2004 as directed by the Department of Enterprise, Trade and Employment for the Basic Research Grants Scheme operated for many years by Enterprise Ireland and more recently in association with the Irish Research Council for Science, Engineering and Technology.

Summary of SFI Awards to Date:

Type	No.	Amount Committed
CSETS Awards	3	€42.0m
Principal investigators	11	€76.7m
E.T. S. Walton Visitors	23	€2.6m
SFI Fellows	2	€12.5m
SFI Investigators	61	€82.7m
CSET Development Award	1	€ 0.9m
Workshops/Conferences	21	€ 0.3m
Total	**122**	**€217.7m**

SFI Vision/Strategy Statement

An SFI vision/strategy statement entitled "Vision 2003-2007: People, Ideas and Partnerships for a Globally Competitive Irish Research System" discussed during 2002 was approved by the SFI Board at its meeting in January 2003. Among the subjects covered in the Statement are SFI Vision, Mission, Strategic Focus, Specific Goals for 2007, Metrics of Success and Operational Philosophy.

The overall vision and strategic direction for Science Foundation Ireland is to build and strengthen scientific and engineering research and its infrastructure in the areas of greatest strategic value to Ireland's long-term competitiveness.

SFI Legislation

On February 5th 2003, An Tánaiste and Minister for Enterprise, Trade and Employment, Mary Harney, T.D., introduced legislation in the Seanad that, when passed, will formally establish SFI on a statutory basis. The relevant Bill is entitled Industrial Development (Science Foundation Ireland) Bill, 2002.

The Bill has now passed all stages in the Seanad and is expected to be presented to the Dáil in the second quarter of 2003.

SFI Board Members

Name	Agency/Organisation
Mr Brian Sweeney[7] (Former Chairman)	Chairman, Siemens Group Ireland
Dr Patrick Fottrell (Deputy Chairman)	Professor of Biochemistry, National University of Ireland, Galway
Dr William C. Harris	Director General, Science Foundation Ireland
Mr Erich Bloch	Principal, Washington Advisory Group, Washington, D.C.
Dr Tom Cotter	Professor of Biochemistry, Department of Biochemistry University College Cork
Professor Frank Gannon	Executive Director European Molecular Biology Organisation (EMBO)
Dr Christopher J. Horn	Chairman of the Board, IONA Corporation
Dr Cecilia Jarlskog	Member, Board of Trustees, Nobel Foundation
Dr Patrick Johnston	Director, Cancer Research Centre, Queen's University, Belfast
Dr Anita Jones	Lawrence R. Quarles Professor of Engineering and Applied Science Department of Computer Science School of Engineering and Applied Science University of Virginia
Professor Robert Laughlin	Professor of Physics, Stanford University (USA).
Dr Ira W. Levin	Deputy Director, Division of Intramural Research, and Chief, Section on Molecular Biophysics National Institute of Diabetes and Digestive and Kidney Diseases National Institutes of Health, Maryland, USA
Mrs Kiran Mazumdar-Shaw	Chairperson and Managing Director The Biocon Group of Companies, Bangalore, India
Mr Frank McCabe	Former Vice President, Intel Corporation
Mr Eoin O'Driscoll	Managing Director, Aderra Ltd, Dublin
Dr Ena Prosser	Director, BioResearch Ireland
Mr Martin Shanagher	Director of the Office of Science and Technology Dept. of Enterprise, Trade and Employment
Dr Don Thornhill	Chairman, Irish Higher Education Authority
Mr John Travers	Chairman, National Tourism Development Authority, Dublin
Dr Edward Walsh	Chairman, Irish Council for Science, Technology and Innovation Chairman, Growcorp Citywest, Dublin
Dr Denis Weaire	Professor of Natural and Experimental Philosophy Department of Physics Trinity College, Dublin

7 Retired 30 January 2003

Statutory Obligations >

Board Members

In accordance with Department of Finance guidelines for State agencies, Forfás board members register their interests in other undertakings with the Secretary.

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

In accordance with the Ethics in Public Office Act, 1995 and Standards in Public Offices Act 2001, Forfás board members furnish statements of interest to the Secretary and copies have been provided to the Commission Secretary, Standards Public Office Commission.

In addition, Forfás staff members holding designated positions have complied with both acts.

Freedom of Information (FOI) Act, 1997

With effect from January 2001, Forfás is covered by the provisions of the Freedom of Information (FOI) Act, 1997. This Act establishes three new 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.

During 2001 and 2002, Forfás responded to a number of FOI requests, one of which is currently with the FOI Commissioner.

Equality

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

A policy on sexual harassment is in operation to ensure there are measures in place to protect the dignity of each individual at work.

Worker Participation (State Enterprises) Act, 1988

Sub-Board consultative structures have been put in place by Forfás to support the organisation's communications and consultative structure. The Joint Participation Forum is welcomed as a positive process by both management and staff.

Safety, Health and Welfare Act, 1989

In accordance with the Safety, Health and Welfare Act (1989), Forfás has prepared a safety statement that encompasses all the aspects affecting staff and visitor welfare.

Clients' Charter

Forfás published a Clients' Charter in 2000 setting out its commitment to a high quality of service to clients and to the general public.

Energy Efficiency

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.

Prompt Payment of Accounts Act 1997 (as amended by 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 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 2002.

(a) 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 cheques are issued as required to ensure timely payments.

(b) 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.

(c) There were nine late payments in excess of €317 during 2002 that exceeded the due payment date by an average of 23 days. The value of these late payments was €33,186. Overall, late payments represented 0.18% of total payments made by the Agency with associated penalty interest of €206.

99.82% of all payment demands were paid within the prescribed timeframe.

There have been no material developments since 1 January 2003.

Management Structure

Forfás Management Structure >

Martin Cronin >
Chief Executive

Killian Halpin >
Manager
Science and Technology Division

Helena Acheson >
Manager
Competitiveness & Innovation Division

Science & Technology Division

Michael Fitzgibbon >
Manager
Surveys & Technical Evaluations Department

Declan Hughes >
Manager
S & T Policy & Planning Department

Eamonn Kearney >
Manager
Systems Department

Ignatius Rossi >
Manager
Facilities Department

Competitiveness & Innovation Division

Seamus Bannon >
Manager
Trade & Innovation Policy Department

Andrew McDowell >
Manager
Competitiveness &
Communications Department

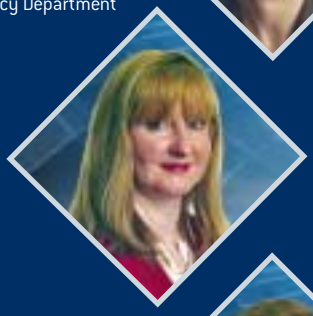
Martin Craig >
Manager
Accounts Department

Brian Cogan >
Manager
Enterprise Division

Enterprise Division

Marie Bourke >
Manager
Long Term Planning,
Tax and Finance Department

Maria Ginnity >
Manager
Infrastructure & Enterprise
Policy Department



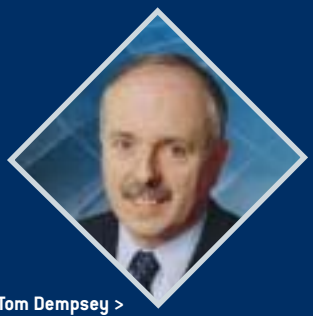
Catherine Kavanagh >
Manager
Expert Group on
Future Skills Needs

Michael O Leary >
Manager
Personnel Department

Secretary's Office

Michael O'Leary >
Manager
Secretariat, Internal Audit,
Corporate Governance and
FOI Department

National Accreditation Board



Tom Dempsey >
Manager
National Accreditation Board

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

Dr Daniel O'Hare
Chairman

Expert Group on Future Skills Needs

Name	Agency/Organisation
Dr Daniel O'Hare (Chairperson)	President Emeritus, Dublin City University
Mr David Barry	Department of Enterprise, Trade & Employment
Mr Brian Cogan	Manager, Enterprise Division, Forfás
Mr Enda Connolly	IDA Ireland
Mr Roger Fox	FÁS
Mr Jack Golden	Cement Roadstone Holdings/Institution of Engineers of Ireland (CRH/IEI)
Mr Una Halligan	Hewlett Packard/IBEC
Mr John Hayden	Higher Education Authority (HEA)
Mr David Lowe	Goodbody Stockbrokers
Mr Kevin McCarthy	Department of Education & Science
Mr Joe McCarthy	Arkaon
Dr Sean McDonagh	Skills Initiative Unit
Mr Eugene O'Sullivan	Department of Finance
Mr Peter Rigney	Irish Congress of Trade Unions

Mr. William Burgess
Chairman

National Competitiveness Council

Name	Agency/Organisation
Mr William Burgess [8]	Chairman
Mr Rory Ardagh	Director, Leap Broadband Limited
Mr Kevin Bonner	Chairman, Transition Management
Mr Donal Byrne	Chairman, Cadbury Ireland Limited
Ms Joan Carmichael	Deputy General Secretary, Irish Congress of Trade Unions
Mr Bernard Collins	Director, Boston Scientific Corporation
Mr Martin Cronin [9]	Chief Executive, Forfás
Mr Des Geraghty	President, SIPTU
Ms Jackie Harrison	Director - Social Policy, IBEC
Ms Annette Hughes	Economist, DKM Economic Consultants
Mr William McCann	Chairman, Galco Steel Limited
Ms Áine Mizzoni	Chief Executive Officer, emergeSmart
Mr Neil Ormonde	Director, Plato Ireland Limited
Professor Ferdinand von Prondzinski [10]	President, Dublin City University
Mr John Travers	Chairman, National Tourism Development Authority
Ms Jane Williams	Managing Director, The Sia Group Limited

Mr Brian Patterson resigned as Chairman on 31 May 2002.

8 Appointed Chairman on 21 June 2002
9 Appointed on 21 June 2002
10 Appointed on 27 February 2002

Dr Edward M.Walsh
Chairman

Irish Council for Science, Technology and Innovation (ICSTI)

Name	Agency/Organisation
Dr Edward M. Walsh (Chairman)	President Emeritus, University of Limerick
Ms Sharon Bannerton	Director, Clear Solutions
Dr Leonora Bishop	Managing Director, Plateomic Ltd. and Department of Clinical Pharmacology, Royal College of Surgeons in Ireland
Ms Marion Coy [14]	Director, Galway-Mayo Institute of Technology
Mr Martin Cronin	Chief Executive, Forfás
Ms Mary Cryan [14]	Director of Technology, Prospectus Strategy Consultants
Dr Alva DeVoy [11]	Senior Investment Analyst, KBC Asset Management Ltd.
Ms Anne Downey [11]	Senior Vice President, QSET
Prof Ted Farrell [12]	Department of Environmental Resource Management, Faculty of Agriculture, National University of Ireland, Dublin
Prof Donald Fitzmaurice	Solar Technology Group, Chemistry Dept., National University of Ireland, Dublin
Dr Peter Heffernan	Chief Executive, Marine Institute
Mr Paul Holden	Managing Director, Rédacteurs Ltd.
Dr Mike Hopkins	President & Chief Executive, Scientific Systems Ltd.
Dr Brendan Hughes [14]	Director of Drug Development, Wyeth Medica Ireland.
Ms Angela Kennedy	Business Director, Megazyme International Ireland Ltd.
Dr Pádraig Kirk	Post-Primary Inspector, Office of the Inspectorate, Department of Education and Science
Prof Anita R. Maguire [13]	Department of Chemistry, National University of Ireland, Cork
Prof Tom McCarthy [14]	Dean of Business School, Dublin City University
Prof. David McConnell [12]	Genetics Department, Trinity College Dublin
Dr David Melody	Vice President for R&D, Loctite (Ireland) Ltd.
Dr Pierre Meulien [14]	Chief Executive, Dublin Molecular Medicine Centre

Name	Agency/Organisation
Dr Pat Morgan	Dean, Faculty of Science, National University of Ireland, Galway
Ms Ann Murphy	Mathematics Department, Dublin Institute of Technology
Dr Mike Peirce [14]	Chairman, Mentec Ltd
Dr Ena Prosser	Director, BioResearch Ireland
Prof William J Reville	Biochemistry Department, National University of Ireland, Cork
Dr Andy Robertson [11]	Director, Conway Institute of Biomolecular & Biomedical Research, University College Dublin
Prof James A. Slevin [14]	Science Secretary, Royal Irish Academy
Mr Brian N. Sweeney [11] (Deputy Chairman)	Chairman, Siemens Ltd. Ireland
Dr Don Thornhill	Chairman, Higher Education Authority
Mr Brian Trench [11]	School of Communications, Dublin City University
Dr Fionnuala Walsh [11]	Business Leader for Science & Technology, Eli Lilly SA

11 Resigned March 2003
12 Retired March 2003
13 Retired and Re-appointed April 2003
14 Appointed April 2003

Reports published by Forfás 2002/2003

Report	Date of Publication
The Labour Market Participation of Over 55s in Ireland Expert Group on Future Skills Needs	January 2002
International Trade and Investment Report, 2001	February 2002
Biotechnology Irish Council for Science, Technology & Innovation (ICSTI)	February 2002
Enlargement of the European Union Forfás Submission to the National Forum on Europe	February 2002
Broadband Investment in Ireland	March 2002
Research & Development in the Business Sector 1999	May 2002
Comparative Consumer Prices in the Eurozone	June 2002
eBusiness: Where we are and where do we go from here	August 2002
Measuring and Evaluating Research Irish Council for Science, Technology & Innovation (ICSTI)	August 2002
Legislating for Competitive Advantage in e-Business and Information & Communications Technologies	October 2002
A Strategy for the Digital Content Industry in Ireland	November 2002
Annual Competitiveness Report 2002 & The Competitiveness Challenge 2002 National Competitiveness Council (NCC)	November 2002
World Trade Organisation Negotiating Objectives for Irish Enterprise Policy	February 2003
National Survey of Vacancies in the Private Non-Agricultural Sector **National Survey of Vacancies in the Public Sector** Expert Group on Future Skills Needs	March 2003
Utilising Intellectual Property for Competitive Advantage Irish Council for Science, Technology & Innovation (ICSTI)	April 2003
Design & Development Irish Council for Science, Technology & Innovation (ICSTI)	April 2003
Baseline Assessment of the Public Research System in Ireland in the areas of Biotechnology and Information and Communication Technologies	April 2003
The Demand and Supply of Skills in the Food Processing Sector Expert Group on Future Skills Needs	April 2003

Report	Date of Publication
State Expenditure on Science & Technology, 2001 Volume 1: The Total Science Budget Volume 2: The Research and Development Element of the Science & Technology Budget	May 2003
International Trade & Investment Report, 2002	May 2003
Embedding the PharmaChem Industry in Ireland Irish Council for Science, Technology & Innovation (ICSTI)	May 2003

All Forfás publications are available on the Forfás website at www.forfas.ie

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

I have audited the financial statements on pages 56 to 70 under the Industrial Development Act, 1993

Respective Responsibilities of Forfás and the Comptroller and Auditor General

The accounting responsibilities of Forfás are set out in the Statement of Board Members' Responsibilities on page 54. It is my responsibility, based on my audit, to form an independent opinion on the financial statements presented to me by Forfás and to report on them.

I review whether the statement on page 55 reflects Forfás's compliance with applicable guidance on corporate governance and report any material instance where it does not do so, or if the statement is misleading or inconsistent with other information of which I am aware from my audit of the financial statements.

Basis of Audit Opinion

In the exercise of my function as Comptroller and Auditor General, I conducted my audit of the financial statements in accordance with auditing standards issued by the Auditing Practices Board and by reference to the special considerations which attach to State bodies in relation to their management and operation.

An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made in the preparation of the financial statements, and of whether the accounting policies are appropriate to Forfás's circumstances, consistently applied and adequately disclosed.

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

Opinion

In my opinion, proper books of account have been kept by Forfás and the financial statements, which are in agreement with them, give a true and fair view of the state of affairs of Forfás at 31 December 2002 and of its income and expenditure and cash flow for the year then ended.

John Purcell
Comptroller and Auditor General

4 April 2003

Financial Statements

Statement of Board Members' Responsibilities >

For 2002 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 & Employment 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 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:

Peter Cassells
Chairman

Martin Cronin
Chief Executive

Statement of Internal Financial Control >

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

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

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

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

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

- 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 the Agencies' 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 of Directors;
- Regular reviews by the Board of Directors 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 internal audit function, which operates in accordance with the Framework Codes of Best Practice set out in the Code of Practice on the Governance of State Bodies. 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 and approved by the Board of Directors. At least annually, the Internal Auditor provides the board with a report of internal audit activity. The report includes the Internal Auditor's opinion on the adequacy and effectiveness of the system of internal financial control.

The Board's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of the internal auditor, the audit committee which oversees the work of the internal auditor, the executive managers within Forfás who have responsibility for the development and maintenance of the financial control framework and comments made by the Comptroller and Auditor General in his management letter.

I confirm that in the year ended 31 December 2002 the Board, through the Audit Committee, had conducted a review of the effectiveness of the system of internal financial controls.

On behalf of the Board:

Peter Cassells
Chairman

Accounting Policies >

Industrial Development Acts 1993, 1995 and 1998

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. It is the body through which powers are delegated 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 and certain former agencies, under the Industrial Development Acts 1993 and 1998, as set out in Note 6 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 & Employment with the consent of the Minister for Finance under the Industrial Development Act 1993. The accounts are denominated in euro. The Financial Statements are prepared on an accruals basis, except where stated below.

(2) Income Recognition

Income from Oireachtas Grants, other than Technology Foresight, represents actual cash receipts in the year.

(3) Fixed Assets

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.

(4) Capital account

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

(5) Foreign Currencies

Monetary assets and liabilties 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) Pension Costs

Pension Payments are accounted for as they fall due.

(7) Operating Leases

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

Income and Expenditure Account >

Year Ended 31 December 2002

	NOTES	2002 €'000	2001 €'000
INCOME			
Oireachtas Grant	1	**19,945**	21,128
Oireachtas Grant - Technology Foresight	1	**34,831**	11,111
Professional Fees - National Accreditation Board	2	**596**	541
Other	3	**911**	1,236
Departmental Programmes	4	**1,378**	1,186
Total		**57,661**	35,202
EXPENDITURE			
Administration and General Expenses	5	**13,491**	14,673
Pension Costs	6	**8,017**	6,848
Depreciation	7	**351**	451
Departmental Programmes	4	**1,378**	1,200
Technology Foresight	8	**34,831**	11,083
Total		**58,068**	34,255
Net Movement for Year		**(407)**	947
Contribution to Exchequer		**(237)**	(492)
Balance at beginning of Year		**2,062**	1,630
Transfer from Capital Account	9	**97**	(23)
Balance at end of Year		**1,515**	2,062

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

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

On behalf of the Board:

Peter Cassells
Chairman

Martin Cronin
Chief Executive

Balance Sheet >

As at 31 December 2002

	NOTES	2002 €'000	2001 €'000
FIXED ASSETS			
Tangible Fixed Assets	7	**427**	524
Total Fixed Assets		**427**	524
Current Assets			
Accounts Receivable	10	**3,095**	7,561
Bank		**57**	24
Total Current Assets		**3,152**	7,585
Accounts Payable	11	**1,637**	5,523
Net Current Assets		**1,515**	2,062
Net Assets		**1,942**	2,586
Represented By:			
Capital Account	9	**427**	524
Income and Expenditure Account		**1,515**	2,062
		1,942	2,586

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

On behalf of the Board:

Peter Cassells
Chairman

Martin Cronin
Chief Executive

Cash Flow Statement >

Year Ended 31 December 2002

	NOTES	2002 €'000	2001 €'000
RECONCILIATION OF NET MOVEMENT FOR YEAR TO NET CASH FLOW FROM OPERATIONS			
NET MOVEMENT FOR YEAR		**(407)**	947
Bank Interest		**(40)**	(30)
Profit on Disposal of Assets		-	-
Depreciation Charge:			
- Tangible Fixed Assets	7	**351**	451
Decrease/(Increase) in Accounts Receivable		**4,466**	(5,197)
(Decrease)/Increase in Accounts Payable		**(3,886)**	4,774
Net Cash Flow from Operations		**484**	945
CASH FLOW STATEMENT			
Net Cash Flow from Operations		**484**	945
Returns on Investment and Servicing of Finance			
Bank Interest		**40**	30
Cash Flow before Capital Expenditure		**524**	975
Capital Funding			
Sale of Tangible Fixed Assets		-	-
Purchase of Tangible Fixed Assets	7	**(254)**	(474)
Cash Flow after Capital Expenditure		**270**	501
Contribution to Exchequer		**(237)**	(492)
Increase in Cash		**33**	9
RECONCILIATION OF INCREASE IN CASH TO CASH AT BANK			
Movement in Cash for the Year		**33**	9
Cash at Bank at 1 January		**24**	15
Cash at Bank at 31 December		**57**	24

Notes to the Accounts >

Year ended 31 December 2002

(1) OIREACHTAS GRANT

	2002 €'000	2001 €'000
Forfás		
Administration and General Expenses	**19,945**	21,128
Technology Foresight		
Administration and General Expenses	**3,831**	2,343
Capital	**31,000**	8,768

(a) Under Section 33(2) of the Industrial Development (Enterprise Ireland) Act, 1998, 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 €1,904,607,118. At 31 December, 2002 the aggregate amount so provided was €1,821,665,485.

(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, 2002 the aggregate amount so provided was €13,547,211.

(2) PROFESSIONAL FEES - NATIONAL ACCREDITATION BOARD

The National Accreditation Board (NAB) is the national body responsible for accreditation of organisations involved in calibration, testing, and certification of quality, product, and personnel management systems in Ireland and is also the statutory GLP (Good Laboratory Practice) compliance monitoring authority. Professional Fees are generated from these activities which involve assessment of laboratories and certification bodies. Costs incurred in generating this income are included in the relevant expenditure heading.

(3) OTHER INCOME

	2002 €'000	2001 €'000
Rental Income	**660**	711
Sundry Income *	**211**	495
Bank Interest	**40**	30
Total	**911**	1,236

* €211,000 (2001: €492,000) was passed to the Department of Enterprise, Trade & Employment as a Contribution to the Exchequer.

Notes to the Accounts (continued)

(4) DEPARTMENTAL PROGRAMMES

These Programmes are administered by Forfás, on behalf of the funding bodies listed below:

		2002 Income €'000	2002 Expenditure €'000
Programme			
Science & Technology Innovation Awareness	1	**829**	829
Ask Ireland	2	**21**	21
Online Regional Database	3	**27**	27
E Commerce Development	3	**81**	81
Expert Group on Future Skills Needs	4	**296**	296
Irish Council for Bioethics	5	**124**	124
Total		**1378**	1378

Details of Funding Bodies:

(1) Office of Science & Technology of the Department of Enterprise, Trade and Employment
(2) Foreign Earnings Committee of the Department of Enterprise Trade & Employment
(3) Information Society Fund of the Department of Finance
(4) National Training Fund of the Department of Enterprise Trade & Employment
(5) Department of Enterprise Trade and Employment

Notes to the Accounts (continued)

(5) ADMINISTRATION AND GENERAL EXPENSES

	2002 €'000	2001 €'000
Board Members' Remuneration and Expenses	**336**	243
Pay Costs	**6,239**	6,061
Other Personnel Costs	**490**	299
Travelling Expenses	**574**	623
Specialised and Professional Services	**1,025**	786
Consultancy and Studies	**1,280**	1,044
Rents, Rates, Repairs and Maintenance *	**1,819**	1,139
Other Operating Expenses	**1,619**	1,595
EMU Business Awareness Campaign	**96**	2,872
Audit Fee	**13**	11
Total	**13,491**	14,673
Pay Costs comprise:		
Wages and Salaries	**5,803**	5,630
Social Insurance Costs	**303**	303
Superannuation Costs	**133**	128
Total	**6,239**	6,061

* These are net of rentals received from sub-tenants of former Industrial Development Authority headquarter buildings.

Notes to the Accounts (continued)

(6) SUPERANNUATION

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

Scheme	Staff Covered	Type
Forfás	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 Siochána Superannuation Scheme, (d) a small number of staff previously covered by the FÁS/AnCO Schemes.	Contributory, Defined Benefit, Unfunded. A small number of those in category (b) are included on a non contributory basis.
Former Industrial Development Authority	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 to meet pension costs at retirement. Post retirement increases are unfunded and met by Forfás from Oireachtas Grant.
Former Eolas	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.
Former National Board for Science and Technology	A small number of staff of the former NBST serving on 31 December 1987.	Contributory, Defined Benefit, Unfunded.
Former Irish Goods Council	A small number of staff of the former Irish Goods Council serving on 31 August 1991.	Contributory, Defined Benefit. Funded to meet pension costs at retirement. Post retirement increases are unfunded and met by Forfás from Oireachtas Grant.
Former An Bord Tráchtála	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 (continued)

(6a) (CONT.) SUPERANNUATION

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

(b) Forfás meets costs arising from normal retirements. These are paid out of current income and are accounted for as they fall due. Contributions received by Forfás from staff in the contributory unfunded schemes outlined above are used to part fund ongoing pension liabilities.

Costs associated with seconded staff retiring under Voluntary Early Retirement (VER) are carried by the appropriate Agency until normal retirement age is reached.

(c) FRS17 RETIREMENT BENEFITS

For accounting periods ending on or after 1 January 2005, Financial Reporting Standard 17 (FRS17) will require 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. As a transitional measure for accounting periods ending on or after 22 June 2001, the Standard requires that the present value of scheme liabilities be disclosed as a note to the accounts.

The valuation of defined benefit schemes used for the purposes of FRS17 disclosures has been carried out by an independent actuary in order to assess the liabilities at the balance sheet date. Scheme assets are stated at their market value at the balance sheet date.

Notes to the Accounts (continued)

(6c) (CONT.) FRS17 RETIREMENT BENEFITS

The financial assumptions used to calculate the retirement liabilities and components of the defined benefit cost for the year ended 31 December 2002 under FRS17 were as follows:

VALUATION METHOD:	PROJECTED UNIT:
Discount Rate	5.50%
Inflation Rate	2.25%
Salary Increases	4.00%
Pension Increases	3.50%

The market value of the assets in the pension schemes, the expected rate of return and the schemes' liabilities at 31 December, 2002 were:

	EXPECTED RETURN	MARKET VALUE AT 31 DECEMBER 2002 €'000
Equities	7.75%	83,885
Bonds	4.75%	26,830
Property	6.50%	12,923
Other	3.00%	2,562
Total		126,200
Present Value of past service pension schemes' liabilities at 31 December 2002		566,776
Net deficit in pension schemes		(440,576)
Related deferred tax liability		-
Net pension asset/(liability)		(440,576)

Notes to the Accounts (continued)

(6c) (CONT.) FRS17 RETIREMENT BENEFITS

Analysis of the amount which would be charged to operating profit is as follows:

	€'000
Current Service Cost	9,009
Past Service Cost	1,500

Analysis of the amount which would be credited to other finance income is as follows:

	€'000
Interest on scheme liabilities	29,372
Expected return on scheme assets	(12,027)

Analysis of the amount which would be recognised in the statement of total recognised gains and losses (STRGL) is as follows:

	€'000
Actual return less expected return on scheme assets	(39,724)
Experience gains and losses	(5,890)
Changes in assumptions	(44,020)
Actuarial loss which would be recognised in the STRGL	(89,634)

Analysis of the movement in deficit during the year is as follows:

	€'000
Deficit at the beginning of the year	(335,107)
Current service cost	(9,009)
Contributions	12,019
Past service costs	(1,500)
Other finance income	(17,345)
Actuarial gain/(loss)	(89,634)
Deficit at 31 December 2002	(440,576)

The above calculations are included for information only. FRS17 requires full recognition of pension scheme assets/liabilities in the financial statements for periods ending on or after 1 January 2005.

Notes to the Accounts (continued)

(7) TANGIBLE FIXED ASSETS

	COMPUTER EQUIPMENT €'000	MOTOR VEHICLES €'000	FIXTURES & FITTINGS €'000	TOTAL €'000
COST				
At 1 January 2002	1,305	61	4,846	**6,212**
Additions	140	59	55	**254**
Disposals	(131)	-	(46)	**(177)**
At 31 December 2002	1,314	120	4,855	**6,289**
DEPRECIATION				
At 1 January 2002	984	30	4,674	**5,688**
Charge for Year	251	30	70	**351**
Disposals	(131)	-	(46)	**(177)**
At 31 December 2002	1,104	60	4,698	**5,862**
NET BOOK AMOUNT				
At 1 January 2002	321	31	172	**524**
Net Movement for Year	(111)	29	(15)	**(97)**
At 31 December 2002	210	60	157	**427**

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

(i) Computer Equipment 3 years

(ii) Motor Vehicles 4 years

(iii) Fixtures & Fittings 5 years

Notes to the Accounts (continued)

(8) TECHNOLOGY FORESIGHT

In February 2000 the Government approved the establishment of the Technology Foresight Fund as an important new initiative to provide significant resources for investment in basic research projects. Science Foundation Ireland (SFI), which currently operates as a committee of Forfás, was established as the mechanism for the management, allocation, disbursal and evaluation of this Technology Foresight Fund. The Agreed Programme for Government published in June 2002 sets out the objective of setting up SFI as a separate legal entity.

	2002 €'000	2001 €'000
ADMINISTRATION AND GENERAL EXPENSES		
Board Members' Remuneration and Expenses	**394**	2
Pay Costs	**802**	326
Other Personnel Costs	**93**	161
Travelling Expenses	**291**	377
Specialised and Professional Services	**1,038**	257
Consultancy and Studies	**324**	490
Rents, Rates, Repairs and Maintenance	**349**	283
Other Operating Expenses	**540**	419
Total	**3,831**	2,315
GRANTS	**31,000**	8,768
Total Technology Foresight	**34,831**	11,083

Grants are payable to Irish third level institutions to carry out world class basic research projects in the Biotechnology and Information and Communications Technologies (ICT) sectors.

At 31 December 2002, grants to the extent of €115m were committed and unpaid.

Notes to the Accounts (continued)

(9) CAPITAL ACCOUNT

	€'000
At 1 January 2002	524
Movement on Tangible Fixed Assets (Note 7):	
- Cost Additions	254
- Cost Disposals	(177)
- Depreciation Additions	(351)
- Depreciation Disposals	177
At 31 December 2002	427

(10) ACCOUNTS RECEIVABLE

	2002 €'000	2001 €'000
General Debtors and Prepayments	2,358	6,564
Inter Agency Balances	737	997
Total	3,095	7,561

General Debtors & Prepayments includes €275,935 (2001: €3,880,680) VAT recoverable by Forfás on behalf of the Forfás VAT Group (Forfás, IDA Ireland & Enterprise Ireland).

(11) ACCOUNTS PAYABLE

	2002 €'000	2001 €'000
General Creditors and Accruals	1,388	1,263
Inter Agency Balances	249	4,260
Total	1,637	5,523

Notes to the Accounts (continued)

(12) COMMITMENTS UNDER OPERATING LEASES

A net total of €1,220,000 (2001 €537,000) has been charged in respect of operating leases on buildings in the accounts of Forfás. Forfás has commitments of €5,636,000 to pay during 2003 in respect of leases expiring as follows

		€'000
(i)	2003	141
(ii)	2004 - 2007	-
(iii)	2008 Onwards	5,495

Costs arising out of these commitments in 2003 will be shared between Forfás and its Agencies in proportion to agreed office space occupied.

The Forfás share of these costs in 2003 is anticipated to be approximately €871,000

(13) TAXATION

Section 227 of the Taxes Consolidation Act, 1997, exempts Forfás from further taxation on its interest and 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 these procedures have been adhered to by Forfás during the year.

During 2002, payments amounting to €419,987 were made to an organisation in which a Board Member declared an interest, in respect of services provided by that organisation to the Agency. The member concerned did not receive any documentation on the transactions nor did the member participate in or attend any Board discussion relating to these matters.

(15) CONTINGENCIES AND LEGAL ACTIONS

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

(16) APPROVAL OF FINANCIAL STATEMENTS

The Financial Statements were approved by the Board on 25th February, 2003.