





### To the Minister for Enterprise, Trade & Employment

Pursuant to the Industrial Development Act, 1993, Forfas herewith presents its report and accounts for the year ended December 31, 1999.

### 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, 1999, a dtíolacadh leis seo ag Forfás.

Peter Cassells
Chairman

John Travers
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 teicneolaíochta, 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;
- ▶ to 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, technology, 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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## **Board Members**



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William Murphy
Partner, Tynan Dillion & Company

John Travers Chief Executive, Forfás

William Scally

Peter Cassells, Chairman

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**David Lovegrove** Secretary to the Board

Professor Yvonne Scannell
Professor at Law, Trinity College

Professor Michael Hillary Chair of Manufacturing Engineering, University of Limerick

> Feargal O'Rourke Partner, Taxation, PricewaterhouseCoopers





L-R

**John Lynch** Director General, FÁS

Dan Flinter
Chief Executive Enterprise Ireland

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

Sean Dorgan Chief Executive, IDA Ireland

Peter Cassells
Chairman

### Chairman's Statement



After six years as Chairman of Forfás, Tom Toner retired in December 1999. Tom was appointed Chairman when Forfás was established and was instrumental in developing its role in the evolution of national enterprise policy in recent years. His immense business experience and strong personal commitment to economic and social progress in Ireland were invaluable assets to the new organisation. Having served on the Board with Tom during his entire period as Chairman, I am very aware of the leadership qualities he brought to Forfás. I want to express the Board's gratitude to Tom for his fine work as Chairman and wish him well for the future.

The sixth successive year of very strong growth in the Irish economy was achieved in 1999 and it is forecast that the economy will record further fast growth in 2000, albeit at a slower rate. As 2000 progresses, the US economy continues to grow steadily, the European economy is showing signs of improvement, Japan is emerging from recession and the east Asian economies are showing signs of a strong recovery since the financial crises of 1997. Growth in world output, at 3.0 per cent in 1999, is forecast to reach 3.5 per cent in 2000. All this suggests that conditions for Irish exporters should remain highly favourable. Since its launch on 1 January 1999, the euro has declined in value relative to sterling and the US dollar, providing an additional stimulus to Irish exports. With the US economy continuing to grow quickly and the rest of the world entering recovery, foreign direct investment (FDI) into Ireland should also continue to grow strongly.

While 1999 was a highly successful year for the Irish economy, Ireland's continued success is not guaranteed. Resource constraints, skill shortages, general labour shortages and infrastructural bottlenecks are imposing constraints on growth, and must be addressed if we are to make further progress in raising living standards, combating social problems and spreading the benefits of economic growth throughout the country. Increased productivity and new forms of work organisation which facilitates adaptation to new technological developments are essential.

There has been a significant acceleration in e-commerce and the technologies that support it. E-commerce is a powerful means by which enterprises can succeed in the rapidly transforming global economy and Forfás has detailed the changes underway and in prospect and the appropriate policy responses in a number of reports. The Government has responded quickly to the policy requirements of the e-commerce environment and a range of good initiatives have been put in place, are underway or are planned. However, other countries are equally responding to the opportunity and challenges involved and we still require to do much in order to position Ireland as a leader in the global e-commerce market.

Irish economic policy must continue to respond to global world trends in business, trade and technology in 2000 and beyond. Competitiveness challenges continue to accumulate as globalisation trends deepen. Ireland will face growing overseas competition for foreign investment and in the traded sector of the economy. Addressing these issues will be a major focus of Forfás' work in 2000.

### Competitiveness

Ireland's economic performance in recent years has continued to impress. A number of factors can be identified as the basis of our recent progress, including: membership of the European Union (EU), participation in Economic and Monetary Union (EMU), high levels of FDI, low tax rates on corporation profits, investment in education and telecommunications and the sequential series of national social partnership programmes since 1987. All of these will continue to play an important role in our national competitiveness.

It is necessary to emphasise that these factors work in combination; there is no "magic bullet" that will achieve competitiveness by acting in a single policy area.

Competitiveness strategy not only has to take account of the wide range of policy issues, it also needs to reflect the interaction between these policy areas. This is demonstrated vividly by present difficulties in infrastructure and transport, which are interacting with

the housing and labour markets to create shortages of labour, upward pressure on wages, escalating house prices and congestion that adds to business costs and environmental pollution.

Measures taken to improve competitiveness do not necessarily yield results in the short term. The most striking example of this is in the field of education. The decision to expand secondary education in the 1960s has led to a highly educated work force that has provided a significant competitive advantage for Ireland in its efforts both to attract foreign direct investment and to upgrade the Irish-owned enterprise sector. Similarly, the upgrading of Ireland's telecommunications infrastructure in the 1980s has provided a significant competitive advantage to Ireland, as well as a basis for the expansion of information intensive industries.

Technological change, however, continues to accelerate, impacting on many areas, including education, telecommunications, e-business and labour and capital markets which fall within the limit of Government policies. Educational systems that have met the requirements of growth to date will need to be continually reviewed and enhanced in the years ahead.

The telecommunications infrastructure also requires further rapid upgrading, with fast responses to changes in the requirements of global markets, driven by the spread of e-business and by the distribution of production and service delivery processes across national boundaries.

Ireland's new prosperity and self-confidence provide a good basis for meeting the challenges ahead. The most important requirement, however, is to fully realise the implications of these challenges and to foster a determination to address them as the overriding priorities of enterprise policy. Without this, there exists a real danger that we will not succeed in exploiting our current advantages and will put at risk the current progress in delivering better living standards and further reducing unemployment.

### **Social Partnership**

The recently concluded Programme for Prosperity and Fairness (PPF) provides a solid basis for future development. Moreover, in the goals and in the implementation methods outlined, the Programme makes a clear commitment to social as well as economic progress, with the objective of advancing the living standards and quality of life of all our citizens. From the perspective of employees, the PPF offers substantial gains in disposable income relative to other industrialised countries. Since the advent of the partnership process, the real incomes of most workers in Ireland have increased by almost a third, and employment levels have increased by over a half

The series of successive national partnership programmes in Ireland has also provided a stable framework for enterprise development. By providing complementary assurances on costs and on real incomes, as well as the level of Government services and the development of infrastructure, the Programmes have ensured a favourable economic climate for investment and growth. They have also provided reasonable assurances of equity in the distribution of the benefits of that growth, with special emphasis on the needs of the most disadvantaged members of the community. It is important, therefore, that the latest wage agreement is seen as a vital component of enterprise strategy. Such programmes provide the required balance of interest and reasonable degree of certainty on policy and the framework for industrial relations that is essential in promoting the development of enterprise in Ireland.

### **World of Work**

The technological and economic changes underway in the world economy will have significant implications for the future world of work. The growth of e-business will bring about structural changes in the workforce, placing a premium on skills and flexibility and yielding significant benefits to enterprises. Traditional "middleman" activities will be increasingly threatened. The new technologies also allow for products to be produced in different locations, with different stages taking place in different countries. Growing bandwidth in telecommunications will allow for the carrying out of more activities at remote locations. Many manufacturing and service processes will, therefore, be open to new forms of work organisation.

Improved management practices will also have an impact on work organisation. Growing sophistication in production planning, assisted by the new technologies and growing sensitivity to quickly changing consumer tastes, will lead to more flexible methods of production, which in turn will impact on the labour force and the way in which work is carried out. There will be a growing emphasis on part-time and home working. This in turn will have implications for telecommunications and infrastructure development and on the type of employee skills valued by business. There will be an increased emphasis on generic skills, in particular on teamwork and on problem solving ability. With the advance of technological change, traditional skills will need to be updated more frequently. Training will thus become an ever more pervasive and continuing component of work itself; "Lifelong Learning" will be an established feature of the world of work.

Clearly, these trends will have major implications, not only for the internal operations of enterprises, but more importantly for the education and training systems that the country provides. Policy will increasingly need to be directed at ensuring that existing institutional structures are aligned with the changing requirements of the economy.

### **Acknowledgements**

During 1999, Forfás received significant support from the Tánaiste and Minister for Enterprise, Trade & Employment, from the Department of Enterprise, Trade & Employment and from other Government Departments on the work which it carried out. I wish to acknowledge this support and its practical expression also in the range of Government policies and publications aimed at the further development of the enterprise sector in Ireland.

In 1999, our fellow State organisations engaged in enterprise development, namely Enterprise Ireland, IDA Ireland, FÁS, Shannon Development and Údarás na Gaeltachta, all achieved excellent results. I acknowledge and appreciate the sustained support of the third level sector, employer bodies and business organisations, trade unions and the media. This was essential to the achievement of the results of the development agencies and the pro-enterprise policies put in place across a range of Government Departments.

As Chairman, I want to express my thanks and appreciation to my fellow Board members, particularly Tom Toner who resigned as Chairman at the end of 1999, and to the many organisations which contributed to the work of Forfás during the year and, in particular, to the National Accreditation Board (NAB), chaired by Dr. Marie Walsh, the National Competitiveness Council (NCC), chaired by Brian Patterson, the Irish Council for Science, Technology and

Innovation (ICSTI), chaired by Dr. Edward M. Walsh, and 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 industrial development and the support of science and technology in Ireland through the Operational Programme for Industrial Development and through a range of other programmes which significantly impact on the environment for enterprise.

Finally, I want to thank sincerely the staff of Forfás for their continued dedication, hard work and professionalism throughout the year.

Peter Cassells Chairman

John Travers
Chief Executive

## Chief Executive's Report



#### Introduction

The performance of the Irish economy in recent years has been remarkable by historical and international standards. This is attributable to many factors, including the high quality of the labour force and the associated success of the enterprise sector in generating strong export growth, which in turn has led to higher levels of employment and real incomes. Ireland now has the capacity to achieve a significantly higher quality of life and the benefits of growth for all its citizens.

### **Employment**

The average annual increase in employment in 1999 was over 102,000, a rise of 6.3 per cent - higher than any other industrialised country. Fast employment growth resulted in a sharp fall in the rate of unemployment, from 5.7 per cent in April 1999 to 4.7 per cent in April 2000. The continued success of policies designed to facilitate the return of long-term unemployed people to work was highlighted by the fact that long-term unemployment accounted for 41 per cent of total unemployment in 1999, down from 48 per cent in 1998. The long-term unemployed now represent just 2.1 per cent of the labour force, down from 3.1 per cent in 1998.

With unemployment now at historically low levels, however, high productivity growth, rather than simply the movement of a high proportion of the labour force from being unemployed to being employed will be the key to raising the living standards of all citizens. This will require a rapid shift toward higher value activities in enterprise and continued high levels of investment in education and training for employees in all sectors of the economy.

#### Overview of 1999

During 1999, Forfás worked in close co-operation with Government Departments and Agencies on the development and implementation of a range of policy issues relating to the support of enterprise, trade, science, technology and innovation in Ireland. It also provided the support for a number of bodies which operate under the aegis of Forfás viz the National Competitiveness Council (NCC), which reports to the Taoiseach, the Irish Council for Science, Technology and Innovation (ICSTI), which report to the Tánaiste and Minister for Enterprise, Trade and Employment and to the Minister for Science & Technology, and the Expert Group on Future Skills Needs which reports to the Tánaiste and Minister for Enterprise, Trade & Employment and the Minister for Education & Science. This work and research helped to support the decisions and actions taken in a number of areas of key importance to the development of the enterprise sector.

Forfás continued to discharge its statutory role of advising the Minister for Enterprise, Trade & Employment on matters relating to the development of industry and science and technology. This was achieved through close working arrangements with the Department of Enterprise, Trade & Employment. It also involved working with other Government Departments and State Agencies, the preparation of a series of reports and submissions, both published and unpublished, and direct participation in policy analysis and development with Government Departments.

Reports published by Forfás in 1999 included:

- ▶ Report on e-Commerce The Policy Requirements
- ► State Investment in Science & Technology, 1998
- ► Forfás/IBEC : Telecommunications for Business: A User's Guide
- ▶ 1998 Forfás Employment Survey
- ► Annual Survey of Irish Economy Expenditures -Results for 1997
- Survey of Research in the Higher Education Sector 1996
- Business Education & Training Partnership Report on the Inaugural Forum, Royal Hospital Kilmainham

In conjunction with the Irish Council for Science, Technology & Innovation (ICSTI):

- ► Technology Foresight Ireland
- ► State Expenditure Priorities for 1999
- ► Investing in Research, Technology and Innovation (RTI) in the Period 2000 to 2006
- ► Statement on Science in Second Level Schools

In conjunction with the National Competitiveness Council (NCC):

- ► Annual Competitiveness Report 1999
- ► Statement on Costs
- ► Social Partnership

In 1999 Forfás coordinated the work of the development agencies - Enterprise Ireland, IDA Ireland, FÁS and Shannon Development where this was necessary for efficiency and effectiveness reasons - through a series of formal and informal working arrangements. The National Accreditation Board (NAB), which operates as a division of Forfás, effectively discharged a wide range of executive functions involved in the accreditation of laboratories and certification bodies throughout the year.

The enterprise sector which is the focus of the promotional work undertaken by Forfás and the other development agencies continues to play a leading part in the development of the economy. The latest Forfás Irish Economy Expenditure Survey shows that firms in the manufacturing and internationally traded services sectors spent over IR£23.6 (€30) billion in the economy in 1998, an increase of over nine per cent in real terms over 1997. Firms in these sectors have also contributed significantly to the level of corporation tax payments accruing to the Exchequer. In 1999, total corporation tax revenues amounted to over IR£2,700 (€3,440) million, a rise of 361 per cent in real terms since 1990 (equivalent to average growth of 18.5 per cent per annum). Some 49 per cent of total corporation tax revenues in 1999 is estimated to come from manufacturing, internationally traded and international financial services companies.

Client firms of the development agencies employed a record 290,600 full-time workers in 1999, an increase of 4.7 per cent on 1998. The Forfás *Annual Employment Survey* shows that 73 per cent of the net increase in permanent full-time employment (9,500 jobs) over this period occurred in internationally traded and international financial services, which reflects the increased importance of higher value-added and knowledge-based activities in the Irish economy. Employment in manufacturing also continued to grow, increasing by 1.5 per cent in 1999 and by 18 per cent in the period 1990 to 1999. This is one of the highest growth rates worldwide and represents an excellent performance by both Irish-owned and foreign-owned manufacturing industry.

### **Future Outlook**

The high rates of economic growth achieved in the Irish economy during the 1990s and the visible benefits that have flowed from it in terms of higher employment opportunities and standards of living, the virtual elimination of unemployment and the overcoming of the dead weight of public indebtedness, are unprecedented by historical standards. Clearly good public policies have played a significant role in the achievements. The price of maintaining good growth prospects in future years is the avoidance of complacency.

In general, over the last decade Ireland's growth was driven by the increased availability and effective deployment of the fundamental resources of labour, capital knowledge, education and skills. It was shaped by the widely shared objective of maximising employment creation and overcoming the socially regressive impact of the highinflation, high-taxation economy.

In this context, recent experience in Ireland makes clear that low *rates* of taxation do not necessarily result in lower tax revenues. If well-designed and formulated lower tax rates, up to a particular point, can help to generate and support higher rates of economic activity resulting in higher levels of tax revenue than would otherwise be the case for investment in redistributive social policies and economic infrastructure.

The results achieved have been outstanding by any standard - for example, in terms of increased employment opportunities, higher per capita income levels and increased financial resources for the Government sector to build on what has been achieved.

The period of economic growth and economic advance has brought with it the inevitable consequences of emerging resource constraints, especially in the areas of the labour market, the environment and economic infrastructure. The planning and delivery systems of significant parts of the State administrative system in Government Departments and State Agencies have also come under pressure from the impact of increased demand on services and the emerging economy-wide difficulties in recruiting and holding highlyskilled staff. It is essential that these emerging problems are managed so that they become simply temporary constraints as the economy adjusts to unanticipated rates of growth and not more permanent structural features. The recently published National Development Plan (NDP) aims to ensure that this is the case and sets out an ambitious investment programme in support of this aim. It will need to be accompanied by a substantive upgrading of the planning and delivery systems of the Government Departments and State Agencies, on which there has already been some advance, if it is to be successfully implemented.

In an environment where the exchange rate is set externally through membership of EMU, increases in costs have important implications for international competitiveness. Cost competitiveness is also under threat from inadequate economic infrastructure and especially in transportation and housing. For example, congested transport systems are impeding the effectiveness of the enterprise sector. Insufficient housing is leading to asset price inflation and placing affordable accommodation beyond the reach of many workers.

The economy is fast approaching what many consider to be technical full employment. Labour supply indicators have begun to diminish quite rapidly with consequent signs of wage inflation. Substantial increases in employment and corresponding reductions in unemployment are leading to problems of labour availability. This has important implications for the provision of workers and skills. In the face of a smaller natural increase in population and as the limitations of further increases in labour force participation are reached, a well structured and administered immigration policy has become essential for continued economic success. The inevitable product innovation and improved workplace technologies of a modern 21st century economy has the potential to quickly make redundant employee skillsets and, therefore, necessitate continuous learning, training and upgrading of skills.

In this type of environment, where the economy is exhibiting the strains of growth, an optimising rather than a maximising approach to economic development is warranted. This will translate into a reduction in the levels of economic growth and employment creation to more sustainable, but still historically high levels, in the decade ahead.

### **Enterprise 2010**

During 1999, the importance for enterprise policy, the development agencies and businesses themselves to respond quickly and effectively to these new realities was advocated in a Forfás long-term strategy report entitled *Enterprise 2010 - A New Strategy for the Promotion of Enterprise in Ireland in the 21st Century.* This report was published in January 2000 and was prepared as input to the NESC report *Opportunities, Challenges and Capacities for Choice,* which provided the policy analysis foundation for the discussions on the *Programme for Prosperity and Fairness.* 

The report emphasises that as Ireland approaches full employment, raising living standards will increasingly depend on growth in productivity, rather than in employment. With labour force trends likely to facilitate average annual employment growth of about two per cent in the period 2000 to 2010, the five per cent average annual growth target for GNP over this period set by the *Enterprise 2010* report will require annual productivity growth of some three per cent.

To achieve such an outcome, a rapid shift towards highgrowth, high-tech, high-productivity activities is required. This will require high levels of investment in modern facilities, new technology and equipment, in employee knowledge and skills (both workers and management), new product development and innovation.

Enterprise 2010 identifies the need for a rapid and sustained improvement in the environment for business development to support productivity growth and maintain competitiveness. Integrated investment in supportive infrastructure throughout the country guided by the National Development Plan must provide a logical support framework for enterprise in order that a high-productivity, high-value-added economy develops and is sustained well into the future.

### Building Scientific and Technological Capability for the Future

The decision of the Government to establish a IR£560 (€711) million Technology Foresight Fund announced by the Tánaiste and Minister for Enterprise, Trade & Employment, Ms. Mary Harney T.D. and by the Minister for Science & Technology, Mr. Noel Treacy T.D., in March 2000 will contribute to the development of world-class research capability in niche areas of information and communication technologies (ICTs) and biotechnology in Ireland. The Technology Foresight Fund is the Government's response to the recommendations of *Technology Foresight Ireland*, published in 1999 by Forfás and the Irish Council for Science, Technology and Innovation (ICSTI). The money available from this initiative will be allocated in the period 2000 to 2006 and will be administered by a dedicated Research Foundation, operating under the aegis of Forfás.

Economic development in the future will depend increasingly on the development and application of *specialised knowledge*, which is outstripping in importance traditional factors of production such as unskilled labour, fixed assets and natural resources in many areas of the economy.

This research initiative is essentially about investing in people and knowledge and demonstrates the Government's policy of using the benefits of recent economic growth to reinvest in key research areas that will determine the longer term competitiveness of the economy. The Fund will encourage clusters of research teams of world-class

standard to be established in Ireland, and will help position Ireland among the highest ranks in those countries where investment in the knowledge base of the country becomes the key instrument of social and economic development policies. The availability of highly qualified people will be crucial in this regard.

### **Skills Requirements**

Investment in education and training has made an important contribution to the high rates of economic growth in recent years. Tackling skills shortages, however, remains a fundamental policy concern. To this end, the Government, on the initiative of Forfás, has established a Business Education Partnership structure to address the issue of skills shortages. Forfás, jointly with the Higher Education Authority and FÁS, provides the secretariat to the Expert Group on Future Skills Needs, one of the main groups of this Partnership.

The work of the Expert Group has highlighted that the major issue now facing Irish industry is the increasing shortage of a wide range of skills across all sectors of the economy. In other words, there is now an emerging general labour force shortage and not simply a skills shortage in certain sectors. Growing the stock of human capital is a necessary prerequisite to sustaining competitiveness and promoting fast growth in labour force productivity. Following the publication of the First Report of the Expert Group, in December 1998, the Government allocated IR£75 (€95) million to fund an extra 5,400 student places in the IT education sector in April 1999. The First Report also stressed, however, that the supply of graduates for all sectors must be continuously monitored to ensure there is an adequate supply of skilled labour in the economy.

Consequently, a *Second Report of the Expert Group on Future Skills Needs* was prepared during 1999 and published in March 2000. The report focused on the chemical and biological sciences, construction, research and IT skills, as well as the labour market in general. The recommendations included the provision of an extra 1,150 places in relevant science degree courses, on a phased basis over four to five years. It was also recommended that Forfás should focus specifically on promoting the awareness of research as a career and should work with the higher education institutions in this regard.

Also highlighted by the Second Report is that Ireland's demographic profile, i.e. the falling natural rate of growth in the labour force and the declining population of potential entrants to third level education, means that non-traditional sources of labour supply will be required to address skills shortage in all sectors. These include immigration, higher female participation, and up-skilling within companies.

The Business Education Partnership held a forum in December 1999, where the findings of the Second Report were discussed with representatives from industry and education. In addition, the National Skills Awareness Campaign is continuing to encourage school leavers to consider careers in specific sectors which are identified as experiencing severe skills shortages. The campaign is managed by Forfás and operates under the aegis of the Expert Group.

### **Regional Development and Infrastructure**

Balanced geographical development of the enterprise sector ensures that economic prosperity is more widely distributed and addresses some of the spatially significant social and political dimensions of economic development. National and regional efficiency is also served by taking steps to prevent congested development in a single or small number of regions. Currently, Forfás and the development agencies are developing strategies to encourage a more efficient spatial distribution of the enterprise sector that will benefit both the enterprise sector and the wider community.

Where the relationship between enterprise development and regional development is complex, two highly influential factors relate to the important role of settlement patterns and infrastructure. International and domestic experience points to the advantage of urban locations for business enterprises. This importance has been enhanced by the shift to higher-value-added and higher-skilled activities represented by high-technology manufacturing and services businesses, which has placed a premium value on locations that offer accessibility, skills, consumer demand, research and development activities and social networks. Enterprises that value these qualities will tend, as a general rule, to emerge in and seek out central and urban locations. This locational behaviour can reinforce existing regional imbalances. While new developments in information and communications technologies offer some degree of locational freedom for certain activities, the significance of agglomeratious economies in urban places for economic development remains strong.

The availability of infrastructure has an important bearing on enterprise location. Regions and centres that do not possess an adequate volume and quality of supporting infrastructure such as roads, telecommunications, electricity, water and housing will inevitably experience a slow expansion of their enterprise base. In recognition of this, in 1999 Forfás conducted an examination of the infrastructure priorities for enterprise development in the regions. This has involved extensive consultations with the development agencies and business representatives in the regions to identify the key infrastructure deficiencies. Access infrastructures such as roads and telecommunications that impact on the exchange of goods, services and information emerged as the major priorities for regional businesses. In response to these concerns, Forfás made a number of recommendations for investment in roads and broadband telecommunications that have been adopted by Government in the new National Development Plan (NDP) 2000-2006.

In 2000, Forfás has continued its work on regional development issues. As part of this process, Forfás has commenced an examination of the resource base of the regions with respect to supporting enterprise development. This work will produce a factual database of the physical and social infrastructures in the regions, together with the existing enterprise base present in centres of population with 1,500 persons and above. The database will incorporate information on population, labour force, transportation, electricity, water and housing supply, plus cultural, leisure and recreational facilities etc. The final database will be capable of regular updating and allow for mapping of relevant data using a geographical information system. It is envisaged that this work will contribute to the development of a National Spatial Strategy (NSS) currently being undertaken by the Department of the Environment and Local Government.

### **E-Business and Telecommunications**

One of the most significant drivers of enterprise development over the next three to five years will be e-business and the information and communications technologies (ICTs) that support it. Ireland's success in exploiting the opportunities involved will be a critical determinant of future growth in competitiveness, income, employment and productivity. Because e-commerce is a fundamentally new way of conducting business the policy environment in which it can grow and thrive is different to that in which traditional businesses grow. Throughout the world, Governments are putting new policies into place to

capture the exceptional opportunities for both economic and social benefit that e-commerce provides. In Ireland, the Government has set the target of making Ireland a global leader in e-commerce, and is actively implementing policies to develop the building blocks for the digital economy.

At the request of the Tánaiste and Minister for Enterprise, Trade & Employment, in 1999 Forfás examined the key enterprise policy implications of the development of e-business for key sectors of the Irish economy. Forfás published its policy action plan in a report entitled *E-Commerce: The Policy Requirements* in July 1999. The report made over 130 recommendations for action by Government, the development agencies and by firms and business organisations in order to develop a conducive, secure and competitive business environment for e-commerce in Ireland. With full implementation of the recommendations, Ireland has the potential to become a global leader in a number of e-commerce sectors.

The report makes a number of key recommendations:

- changes in the legislative and regulatory framework for commerce are required to provide for the establishment of trusted third parties and to ensure that electronic contracts are enforceable in law;
- the national education infrastructure needs to ensure that graduates from all disciplines are equipped with the skills required to participate in the e-commerce economy;
- research and development in e-commerce related activities must be enhanced;
- ▶ Ireland needs to take a lead at EU level in determining the future VAT regime in the single market area, if we are to protect our leadership position as a centre for the digital distribution of content such as software, music and education and training content.

The report also sets out recommendations for a number of key sectors of the Irish economy to prepare for and develop competitive advantage in e-commerce:

- the software, education and training and food sectors will have major growth opportunities but will also need to transform their operations to remain competitive in an e-commerce environment;
- ▶ new opportunities are emerging in the areas of digital content management and e-commerce support services;
- sectors such as banking and logistics need both to transform their own activities and to take a lead in enabling e-commerce in the wider economy;
- ➤ small businesses and services firms face major challenges to prepare for e-commerce. Increasing their awareness of the business impact of e-commerce and equipping employees with the appropriate skills should be top priorities.

Work is continuing with the Department of Enterprise, Trade & Employment and the social partners on achieving speedy implementation of the report's recommendations.

John Travers
Chief Executive

### Overview of 1999



GNP grew by an estimated 7.5 per cent in real terms in 1999<sup>1</sup>, making it the sixth successive year of exceptionally strong economic growth. Both exports and imports increased rapidly. Merchandise exports are estimated to have increased by over 15 per cent (in value terms) while merchandise imports increased by over 14 per cent.

Employment grew by 6.3 per cent in 1999. Over 102,000 more people were in employment in the fourth quarter compared with the same period in 1998². The unemployment rate fell to 4.7 per cent in April 2000, compared with 5.7 per cent in April 1999 (CSO Principal Statistics). The long-term unemployment rate (the number of persons unemployed for one year or more expressed as a percentage of the total labour force) represented 2.1 per cent of the labour force in September-November 1999, compared to 3.1 per cent in the same period of the previous year². These figures show continued success in encouraging the long-term unemployed back to work.

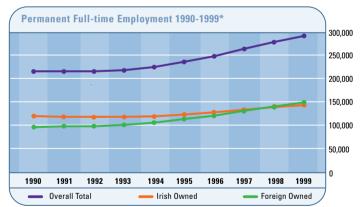
According to the 1999 Forfás Annual Employment Survey, permanent full-time employment in companies supported by Enterprise Ireland, IDA Ireland, Shannon Development and Údarás na Gaeltachta reached 290,600 by the end of 1999, a net increase of 13,000 (4.7 per cent) on 1998 levels. Foreign-owned companies accounted for 8,700 (67 per cent) of the increase, while Irish-owned companies accounted for the remaining 4,300 (33 per cent).

Most of the net growth in employment over this period occurred in the internationally traded and financial services sectors. These sectors accounted for 9,500 (73 per cent) of the net increase in permanent full-time employment.

Manufacturing accounted for the other 3,500 (27 per cent) of the increase in employment, a satisfactory performance given that manufacturing employment is in decline in many OECD countries.

In gross terms, there were 34,600 new permanent full-time jobs created in agency-assisted companies in 1999, the highest level of growth achieved in the past ten years. Irishowned companies accounted for 15,300 (44 per cent) of the jobs created. Alongside this strong job creation, however, there has also been an increase in the number of job losses. Job losses increased by 22 per cent in 1999 to 21,600, which is also the highest level recorded over the past ten years. These losses reflect the gradual re-orientation of industry towards higher value-added sectors and restructuring in the indigenous and foreign-owned industrial base in response to intense competition in both domestic and export markets.

Figure 1



Source: Forfás Annual Employment Survey \* Figures refer to the end of each calendar year.

<sup>1</sup> ESRI Quarterly Economic Commentary, March 2000.

<sup>2</sup> CSO Quarterly National Household Survey - First Quarter 2000.

Figure 2



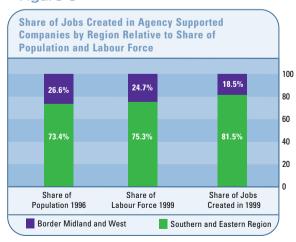
Source: Forfás Annual Employment Survey

### **Employment Growth Imbalance between the Regions**

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<sup>3</sup>.

Mirroring the regional distribution of the population, the labour force and the larger urban centres, most of the jobs created in agency-supported companies during the late 1990s have been located in the Southern and Eastern region of the country. It is an aim of industrial policy, however, to achieve a greater regional dispersal in new jobs created. Accordingly, the regional distribution of agency-supported new jobs will be monitored closely in the future.

Figure 3



Source: Forfás Annual Employment Survey, CSO Census of Population and Quarterly National Household Survey

### **Increase in Part-time Employment**

Part-time, temporary and short-term contract employment increased by 4.2 per cent to 33,250 in 1999. Employment in this category has grown steadily over the last decade accounting for 11 per cent of all jobs in agency-supported companies in 1999, compared with 6.7 per cent of all jobs in 1990\*. Taking the two categories of employment together (permanent full-time and temporary/part-time), there are now 324,000 persons employed in agency-assisted companies, up from 229,000 in 1990.

Figure 4



Source: Forfás Annual Employment Survey

### Spending by Agency-Supported Firms in the Economy up by IR£2 billion (€2.5 billion)

As in previous years, firms in manufacturing and internationally traded services increased their spending in the Irish economy in 1999, resulting in significant indirect employment spin-offs. The latest Forfás *Irish Economy Expenditure Survey* estimates that manufacturing and internationally traded services companies spent over IR£23.6 ( $\leqslant$ 30) billion in the economy in 1998, up IR£2.0 ( $\leqslant$ 2.5) billion on 1997, or 9.1 per cent in real terms.

This spending contributed significantly to the high rates of growth in the economy. Spending on wages and salaries, Irish raw materials and Irish services by both Irish-owned (IR£11.7/€14.9 billion) and foreign-owned (IR£11.9/€15.1 billion) firms in the manufacturing and internationally traded services sectors increased in 1998.

<sup>\*</sup>Excludes companies under the remit of Shannon Development

<sup>3</sup> This is the regional 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, Midlands and West region accounts for the other 13 counties.

Figure 5

	1998						% change over 1997
	lrish (	Irish Owned		Foreign Owned Total			
	IR£m	€m	IR£m	€m	IR£m	€m	%
Total Sales	15,221	19,327	34,394	43,671	49,615	62,998	10.7
Total Irish Economy Expenditures	11,679	14,829	11,935	15,154	23,614	29,983	9.1
Of which: Wages & Salaries	2,530	3,212	2,981	3,785	5,511	6,997	8.5
Irish Raw Materials	6,288	7,984	3,684	4,678	9,972	12,662	6.7
Irish Services	1,936	2,458	4,606	5,848	6,542	8,306	10.8
Profits -							
all Irish Industry profits and corporation tax paid by overseas firms	925	1,175	664	843	1,589	2,018	20.2
IEE % Sales	76.7		34.7		47.6		

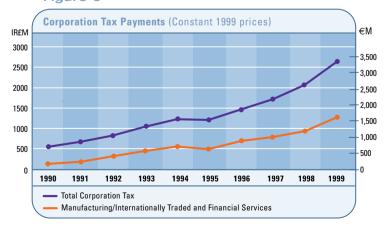
Source: Forfás Irish Economy Expenditure Survey

The latest data from the Irish Economy Expenditure Survey estimate that exports made up 40.2 per cent of sales by Irish-owned manufacturing companies employing more than 19 people in 1998, compared with 37.7 per cent in 1991, reflecting the increased internationalisation of Irish-owned industry.

### **Substantial Rise in Corporation Tax Payments**

Companies involved in manufacturing and internationally traded and financial services provide a very significant direct return to the exchequer by way of corporation tax payments.

Figure 6



Source: Forfás Corporation Tax Survey

- ➤ Total corporation tax revenues amounted to over IR£2,700 (€3,440) million in 1999<sup>4</sup>. This represents a rise of 361 per cent in real terms in the period 1990 to 1999, equivalent to an average annual increase of 18.5 per cent in real terms.
- ► According to a survey by Forfás, corporation tax paid at the 10 per cent rate by manufacturing and internationally traded and financial services companies amounted to IR£1,330 (€1,690) million in 1999, or 49 per cent of total corporation tax receipts, equivalent to an annual increase of 26 per cent in real terms since 1990.

### **Increased Investment in Enterprise Development**

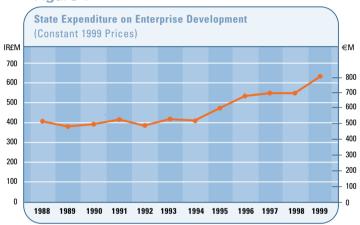
Forfás undertakes an annual analysis of State investment to promote the development of the enterprise sector and create employment in Ireland. The latest analysis indicates that:

be the gross cost of support to the enterprise sector in the form of direct expenditure (all costs of operating the development agencies, financial supports, etc.) was approximately IR£563.7 (€715.8) million in 1998, and is estimated at IR£652.8 (€828.9) million for 1999. This represents a rise of 58 per cent in real terms over the period 1988 to 1999, equivalent to 4.2 per cent per annum in real terms;

<sup>4</sup> End December 1999 Exchequer Returns.

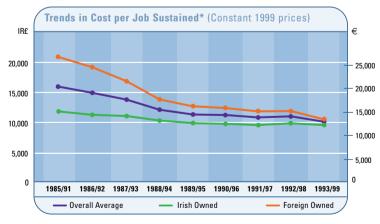
- ➤ over the same period, 1988 to 1999, gross Government expenditure (current plus capital) grew by 89 per cent<sup>5</sup> in real terms. GNP growth in real terms over this period was 95 per cent;
- ▶ there has been a swing from fixed-asset related supports to other forms of support such as R&D, equity investment, employment grants and supports aimed at upgrading the business capability of firms. In 1988 fixed asset supports accounted for 46.5 per cent of total direct expenditure. By 1998, the percentage had fallen to 35.3 per cent.

Figure 7



Source: Financial Support by Government for the Development of Enterprise in Ireland, Forfás

Figure 8



Source: Annual Employment Survey, Forfás \*Excludes companies under the remit of Shannon Development and Údarás na Gaeltachta

#### **Cost Per Job Sustained**

The average cost of each job sustained over a seven year period in agency-supported companies<sup>6</sup> amounted to approximately IR£10,100 (€12,824) in 1999, the lowest level recorded to date. The trend is shown in Figure 8 below. This reflects the improved value for money approach pursued, the overall improvement in the economic environment for enterprise development and the rapid growth in internationally traded services projects, where the investment costs are generally lower than in manufacturing projects.

### **Business Sector Research and Development**

Forfás completed and published during 1999 the findings from the latest survey of business sector research and development (R&D).

In aggregate terms, R&D activity in industry continued to grow between 1995 and 1997. Total business expenditure on R&D (BERD) in 1997 was IR£535 (€679) million, or 1.1 per cent of GDP. This placed Ireland in 11th place out of 26 OECD countries and brought the country on a par with the European average. However, Ireland still lags behind other small northern European countries on this measure, including Sweden, Finland and Denmark.

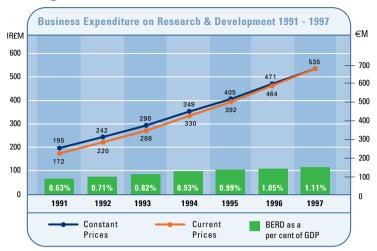
Indigenous firms accounted for IR£192 ( $\leqslant$ 244) million (36 per cent of BERD) of the total and foreign-owned firms accounted for IR£343 ( $\leqslant$ 436) million (64 per cent of BERD). The R&D intensity (R&D spend to gross output) of indigenous manufacturing was 1.1 per cent in 1997 (up from 0.5 per cent in 1991) while the R&D intensity in foreign-owned manufacturing was 1.2 per cent (up from 1.0 per cent in 1991).

The R&D intensities of indigenous and foreign-owned manufacturing are a cause for concern because these represent half of the OECD average (2.4 per cent) and approximately one-third of that found in the top performing country (Sweden, 3.5 per cent). The survey indicates that only 340 indigenous firms and 260 foreign-owned firms spent more than IR£100,000 (€126,974) on R&D in 1997.

Moreover, there are some signs of a slowing down in the growth rate of business sector R&D activity. The growth rate in R&D expenditure in real terms between 1995 and 1997 was 15 per cent per annum - lower than that witnessed in the period 1991 to 1995 (20 per cent per annum).

- 5 Including IR£3 (€3.8) billion pre-funded pension liabilities provided for in the Capital Expenditure Budget 1999. Excluding this, the rise in gross Government expenditure over the period 1998 to 1999 was 67 per cent in real terms.
- 6 Data exclude companies under the remit of Shannon Development and Údarás na Gaeltachta. Only jobs created during, and sustained to the end of each seven year period, are credited in the calculations.

Figure 9



Source: Survey on Business Expenditure on Research & Development, Forfás

### Growth in Expenditure on Research in the Higher Education Sector

Forfás completed and published during 1999 the findings from the latest survey of research in the higher education sector. The sector is defined as the universities and the institutes of technology, including the Programmes in Advanced Technologies (in the universities) and the Technology Centres in the Institutes of Technology. Expenditure on research amounted to IR£120.6 (€153.1) million in 1996, up 53 per cent in real terms on 1992 levels.

Among the major findings of the survey are the following:

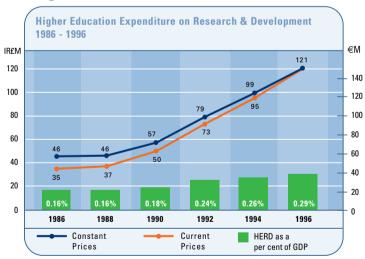
- expenditure on research in the higher education sector (HERD) amounted to 0.29 per cent of GDP in 1996, compared with an EU average of 0.38 per cent of GDP;
- ▶ total number of HE researchers (full-time equivalent) was 2,065 in 1996, or 1.4 per thousand of the labour force, compared with an EU average figure of 1.75. This is up slightly from a total of 1,888 researchers in 1992, or 1.37 per thousand of labour force;

- ▶ the major source of funding for HE research is the research component of the block grant to the colleges for their current and capital expenditure. It accounted for 45 per cent of the total funding. This component of funding is calculated from the time academics report that they spend on research (25 per cent on average of their working week);
- ▶ other major sources of funding are direct Government grants (21 per cent), EU programmes (15 per cent), Irish business (6 per cent) and foreign sources (6 per cent).

### State Expenditure on Science and Technology

The Forfás annual publication *State Expenditure on Science and Technology* shows that Government allocations to scientific and technological activities amounted to IR£932 ( $\in$ 1,183) million in 1999, an increase of IR£46.5 ( $\in$ 59.0) million or 5.2 per cent over the 1998 level. All of the increase is accounted for by public funds (Exchequer + EU), which rose from IR£729 ( $\in$ 926) million in 1998 to IR£776 ( $\in$ 985) million in 1999; the balance of IR£156 ( $\in$ 198) million arises from income earned from the activities of the departments and agencies.

Figure 10



Source: Survey of Research in the Higher Education Sector, Forfás

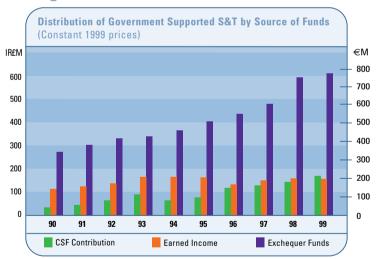
Figure 11

Government Department	Total Public		
·	IR£'000	€'000	% Total
Taoiseach	454	576	0.06
Finance	2,796	3,550	0.36
Environment and Local Government	10,039	12,747	1.29
Education and Science	491,490	624,064	63.34
Marine and Natural Resources	16,484	20,930	2.12
Arts, Heritage, Gaeltacht and the Islands	3,793	4,816	0.49
Agriculture and Food	62,747	79,672	8.09
Enterprise, Trade & Employment	122,142	155,088	15.74
Public Enterprise	10,153	12,892	1.31
Social, Community and Family Affairs	8,845	11,231	1.14
Health and Children	13,848	17,583	1.78
Government Offices	33,134	42,072	4.27
Grand Total	775,925*	985,222*	100.00

Source: Forfás - State Expenditure on Science and Technology

The EU contribution to public sector Science and Technology (S&T) in Ireland grew from IR£141.8 ( $\leqslant$ 180.0) million in 1998 to an estimated IR£168 ( $\leqslant$ 213) million in 1999. This increase is mainly due to the extra funding allocated for grants to industry for R&D projects supported by Enterprise Ireland under its Research, Technology and Innovation Programme.

Figure 12



Source: Forfás State Expenditure on Science & Technology, 1999

<sup>\*</sup> These figures do not include 'earned income' (such as fees for technical services) which amounted to IR£156 million ( $\leqslant$  198 million) in 1999. The inclusion of earned income brings the total to IR£932 million ( $\leqslant$  1,183 million).

### Activities in 1999

#### Introduction

Forfás was established in 1994 as the Advisory Board for Industrial Policy and Science and Technology. In this capacity, Forfás:

- ➤ advises the Minister for Enterprise, Trade & Employment on the development of State policies designed to stimulate enterprise and employment;
- ▶ is responsible for coordinating key aspects of the activities of the promotional agencies; and
- is responsible for evaluating and monitoring programmes which promote enterprise development, science and technology.

The National Accreditation Board (NAB) operates as a division of Forfás.

### **Policy**

### Introduction

During 1999, Forfás developed policy recommendations on a wide range of issues related to the development of enterprise, trade, science, technology and innovation in Ireland. A number of these recommendations were developed in conjunction with bodies established by Government, including the National Competitiveness Council (NCC), the Irish Council for Science, Technology & Innovation (ICSTI) and the Expert Group on Future Skills Needs; for each of which Forfás provides the secretariat. A brief summary of some of the work is given below under the following headings:

- Competitiveness
- ► Technology Foresight
- ▶ Irish Council for Science, Technology & Innovation
- ► Regulation and Competition
- Skills
- ► Enterprise Development
- ► Electronic Business

- ▶ Trade
- ► Infrastructure and Regional Development
- Taxation
- ► Finance
- ► The Planning Process
- ► Electricity

### Competitiveness

The main focus of work under the broad heading of competitiveness analysis has centred on the activities of the National Competitiveness Council (NCC), for which Forfás provides the secretariat.

The Council's *Annual Competitiveness Report* '99 (ACR), published in May 1999, provided a detailed and comprehensive evaluation of the state of, and progress in, Ireland's international competitiveness. The report benchmarks, on the basis of over 120 statistical indictors, Ireland's performance across all the main dimensions of competitiveness in the economy including human resources, R&D and innovation, trade and foreign investment, business finance and economic infrastructure.

The NCC's *Report on Costs*, published in June, highlighted the critical importance of the cost structure in underpinning the international competitiveness of the overall economy. The report identified the main cost factors for Irish enterprise and compared them with cost levels in key competitor countries, in particular the UK, Ireland's major trading partner.

The Inter-Departmental Group on Competitiveness was asked by Government to consider and prepare a response to the ACR. Forfás, together with the Department of Enterprise, Trade & Employment, provided the secretariat to the Group. Their report, completed in July, concluded that for the vast majority of recommendations made by the Council, action consistent with the recommendations was under way or planned to address the competitiveness issue involved.

The Council's report on *Social Partnership* was published in September. This highlighted the role played by social partnership as a critical competitive advantage for the Irish



economy since 1987 and its significant contribution to economic and social progress over that period. The report highlighted the need for a new set of shared goals to bolster the partnership process and also examined the main competitiveness issues that a new partnership agreement should address.

Over the second half of the year, the Council also published follow-up reports to its earlier statements on skills, telecommunications and e-commerce. These follow-up reports assessed progress in relation to the issues identified in the skills, telecommunications and e-commerce statements and, reflecting recent developments, highlighted emerging priority actions in these vital areas. The Council's up-to-date assessment, detailed in the follow-up report, of the requirements for Ireland to achieve a leadership position in telecommunications and e-commerce has been furnished to agencies with responsibility (and/or interest) in the area. In support of the work being carried out by the Department of Enterprise, Trade & Employment, the NCC has also promoted awareness of the rapid implementation of the recommendations contained in the report *E-Commerce*: The Policy Requirements prepared by Forfás for the Tánaiste.

### **Technology Foresight**

The Technology Foresight initiative was launched in March 1998 and final reports were published in April 1999 by the Task Force established under the auspices of the Irish Council for Science, Technology and Innovation (ICSTI) within Forfás.

The Technology Foresight initiative highlighted the steps necessary to reposition Ireland as a global leader in the knowledge-based economy. The *Technology Foresight* report recommended the establishment of a IR£500 ( $\leqslant$ 635) million fund to support the development of world-class research capabilities in niche areas of information and

communication technologies and of biotechnology. This investment was deemed necessary to underpin the future competitiveness of indigenous industry, facilitate the undertaking of R&D in this country by multinational companies and attract more high-tech companies to Ireland.

The Tánaiste and Minister for Enterprise, Trade & Employment, Ms. Mary Harney T.D., and the Minister for Science, Technology & Commerce, Mr. Noel Treacy T.D., formally launched a Technology Foresight Fund of IR£560 (€711) million on March 8, 2000, to implement the ICSTI recommendations.

A dedicated Research Foundation will be established to evaluate research projects and to manage and allocate funding. The Foundation will put in place appropriate procedures for a competitive international peer review process to fund world-class research within the niche areas identified. The Foundation will operate under the aegis of Forfás as a sub-board of the Forfás Board.

### Irish Council for Science, Technology & Innovation - ICSTI

The Irish Council for Science, Technology and Innovation within Forfás advises the Minister for Enterprise, Trade & Employment, the Minister for Science, Technology & Commerce and the Government on policy for science and technology and related matters.

Output from the Council in 1999 was dominated by the nine reports from the Technology Foresight initiative, which the Minister had requested the Council to undertake in 1998 (see previous section). The ICSTI Foresight report advocated that a well-focused and significant investment in upgrading the technological infrastructure of the economy would enable Ireland to develop world-class research capability in strategic technologies.

In addition, 1999 saw the completion of three other ICSTI statements and one report as follows:

▶ "Investing in Research, Technology and Innovation (RTI) in the Period 2000 to 2006". This statement outlines the important contribution that RTI makes to national economic development and why sustained investment in RTI should be a priority for Ireland in the period of the National Development Plan (2000-2006).

- "Science in Second Level Schools". This statement makes specific and actionable recommendations to Government, the education sector, the business sector and others to improve science, technology and mathematics education in second-level schools.
- ➤ "Public Sector Research and Technology Services for Innovation in Enterprises". This statement puts forward a set of policy principles and guidelines that relate to the undertaking and delivery of public research, technology and innovation services to enterprises.
- "Benchmarking School Science, Technology and Mathematics (STM) Education in Ireland against International Good Practice". Science, technology and innovation are taking on an increasingly important role in Irish society and the Irish economy. Effective primary and second level science, technology and mathematics education in Irish schools is a priority given this changing environment. As the knowledge age unfolds, it is recognised that national competitiveness and well-being become more and more dependent on the scientific capability of the population. This report, undertaken with the assistance of the National Council for Curriculum and Assessment (NCCA), benchmarks STM education in Ireland, Scotland, Finland, Malaysia and New Zealand. Three key issues in science, technology and mathematics education identified by ICSTI are:
  - how to develop and implement STM education policy on a timescale that meets the rapidly changing needs of an emerging knowledge-based society, while continuing to meet individual students' long-term needs and ensuring a high level of ownership among the social partners;
  - how to recruit, train and retain high-quality STM teachers, particularly in the physical sciences and mathematics; and
  - how best to teach and assess science, technology and mathematics.

In November 1999, the Council established three Task Forces to address the following issues:

### ► Commercialisation of Research

This Task Force will make recommendations on the best means, circumstances and conditions for the transfer and commercialisation of research activities in the higher education and public research institutions.

#### ► Modern Biotechnology

This Task Force will examine the current state of modern biotechnology, identify and consider socio-economic issues that need to be addressed in a national context and prepare a statement on these in the context of the future development and application of modern biotechnology. Biotechnology is an enabling technology that affects a large number of sectors that are very important to the economic growth of the Irish economy and was confirmed in the *Technology Foresight* reports as a critical technology for the future.

### Public Awareness of Science, Technology and Innovation (STI)

This Task Force will make recommendations regarding the raising of public awareness about STI issues relevant to Ireland. Two particular aims are paramount:

- to contribute towards the development of a population which is well informed about, and comfortable with, STI issues; and
- to encourage more students to study the physical sciences at second and third level education, in order to meet the needs of industry for people with science and engineering skills.

A joint Steering Group, consisting of two members each from the Arts Council and ICSTI, was established in Spring 1999. The Steering Group is exploring ways of enhancing a new alliance between the arts and the sciences with a view to encouraging innovation and creativity.

### National Development Plan 2000 to 2006

In its statement *Investing in RTI in the Period 2000 to 2006*, ICSTI called for a new programme of substantial investment in the country's RTI base as a means of enhancing innovation and competitiveness. The ICSTI Statement was widely endorsed, and was included in the ESRI report on investment priorities for the period 2000 to 2006 and in the NESC report on national social and economic strategy published in December 1999.

The National Development Plan accepts that there is a strong link between investment in the research and innovation base of the economy and sustained growth. The overall allocation of IR£1.95 ( $\leqslant$ 2.5) billion to RTDI over the period 2000 to 2006 in the Plan is a welcome reflection of this high priority.

This allocation consists mainly of additional resources for research and development across the different sectors of the economy. The major components of the RTDI allocation are as follows:

- ➤ IR£550 (€698) million for RTDI in the third level sector.

  This will build upon the existing initiatives in the Programme for Research in the Third Level Institutions 1999-2001. It will also contribute to the strengthening of graduate enterprise programmes and of higher education industry links. The investment will also allow for the development of support schemes for post-graduate and post-doctoral researchers;
- ▶ IR£560 (€711) million for a Technology Foresight fund;
- IR£381 (€484) million for research and technology development in industry;
- ► IR£210 (€267) million to promote collaboration networks between colleges, research institutes and industry;
- ► IR£128 (€163) million for agriculture/food RTDI, IR£50 (€63) million for fisheries and forestry, and IR£20 (€25) million for an Environmental Research Programme.

### Skills

In November 1997, the work of the Business Education and Training Partnership began, supported by Forfás research and secretariat. The three components are:

- An Expert Group on Future Skills Needs to provide analysis and recommendations;
- ➤ A high level Management Implementation Group to facilitate fast-track decisions on key recommendations; and
- ➤ A Business Education and Training Partnership Forum involving the Tánaiste and Minister for Enterprise, Trade & Employment and the Minister for Education & Science.

Following publication of the *First Report of the Expert Group on Future Skills Needs*, the Government, in April 1999, approved the allocation of an additional IR£75 (€95.2) million to the Department of Education & Science for the provision of 5,400 places. Additional resources of IR£3.2 (€4.1) million were provided for by the Department of Enterprise, Trade & Employment in its 1999 budget, for an additional 750 places on FÁS high skill courses for the electronics and software sectors.



The Expert Group will continue to monitor the supply and demand for IT professionals and acknowledges that the shortage of computer science technicians is a major concern for the IT industry. Hence it recommends that greater priority should be given to allocating places in Accelerated Technician Programmes (ATP) in the Institutes of Technology to computer science students. Furthermore, the Group recognises the current and projected shortage of graduate engineers. The third level institutions have been provided with resources for such students, but given the fact that it takes four years to complete such a degree, the shortage of engineering professionals will only begin to decrease after 2003.

The Expert Group analysed the labour supply and demand for construction crafts, life sciences, research skills, and the labour market in general. The recommendations for these sectors and the IT sector are included in the Second Report published in March 2000.

The main recommendations for construction crafts include increasing the number of apprentices and exploring routes to shorten the duration of apprenticeships. Resources should be made available in providing apprentices with places on the off-the-job component of the apprenticeship programme. The Expert Group predicts that present craft shortages of 5,000 will decrease to 2,000 by 2003, but recommends that both FÁS and the CIF will need to continue to attract craftspersons from abroad.

For the chemical and biological sciences sectors, the Expert Group recommended that 1,150 university places be made available on a phased basis. At sub-degree level, it was proposed that the accelerated Manufacturing Technicians Programme should be extended to cater for an additional 250 science technician students.

Recommendations for research skills include providing attractive financial support for researchers in the Third Level institutions and attracting researchers from abroad.

In response to the forecast slowdown in labour force growth over the coming years, the Expert Group has recommended measures to:

- encourage greater work participation through changes to the tax and welfare system and better childcare provision;
- assist the unemployed to obtain jobs;
- promote immigration;
- increase the number of over 55s in the workforce; and
- increase flexible work options.

The second *Business Education and Training Partnership Forum*, jointly chaired by Forfás and the HEA, was held in December 1999. The Forum was addressed by the Minister for Education & Science and the Minister for Science, Technology & Commerce. The findings of the Expert Group as outlined above were presented and discussed and the Forum Report was published in March 2000.

As part of on-going work on employee training in 1999, Forfás conducted a joint study with the Open University Business School (OUBS) and PricewaterhouseCoopers (PwC) on management development in Ireland's enterprise sector. The study found that the vast majority of companies in this sector were conducting mostly informal and ad-hoc training of their managers, with little evidence of a systematic process of management development.

Experience worldwide suggests that alternative forms of remuneration such as profit-sharing, gain-sharing and employee share option schemes have a key role to play in helping firms, and smaller firms in particular, to attract and retain staff. In 1999 Enterprise Ireland, in conjunction with Forfás, commenced a study to establish the types of remuneration and other incentives that might assist growth-oriented companies to attract and retain the services of skilled and experienced individuals. This study will be completed in 2000, and will be made available to the Consultative Committee, established under the *Programme for Prosperity & Fairness*, to prepare proposals for consideration in the context of the Budget 2001.



### **Regulation and Competition**

Forfás has undertaken work in relation to the appropriate design of a programme for regulatory reform in the Irish economy. This work began with an overall assessment of the existing status of regulation in Ireland, concentrating on a specification of the present legal and institutional framework, and also highlighting a number of general principles to be followed in regulatory activity and competition policy. Initial identification of some key issues in this regard was made. Sectors were identified that were particularly important for competitiveness and where there was a need to assess whether the present regulatory environment was contributing adequately to competition.

An appraisal of the relationship between sectoral regulators and competition authorities based on a comparative institutional study was undertaken for the transport and the business services sectors. The purpose of the sectoral studies is to derive policy conclusions focused in particular on activities where regulatory reform is likely to improve competition, performance and competitiveness. Based on the principles elaborated, as well as the institutional study undertaken, submissions were prepared from the NCC, and from Forfás, to the Minister for Public Enterprise in response to her request for submissions with regard to the governance and accountability of regulators.

### **Enterprise Development**

During 1999, Forfás undertook a review of national strategy for the development of the enterprise sector in light of changing economic and social circumstances and prepared a report entitled *Enterprise 2010*. The study also constituted Forfás' input to the National Economic and Social Council's work on the preparations of a new social partnership agreement.

The *Enterprise 2010* report identifies the enterprise sector as the main contributor to the exceptional growth in employment and output and in overall living standards over the last five years. It also recognises that the enterprise sector in general, and the internationally traded sector in particular, has generated much of the resources that have allowed Ireland make significant progress on the achievement of national social and economic objectives. It identifies the importance of a stable macro-economic environment, social partnership, an educated labour force, high levels of inward investment and EU membership to the achievement of this performance.

As a small open economy, Ireland will be more exposed than most to future changes in the external environment. Technological change in the areas of information and communications technologies and biotechnology will impact greatly on the enterprise sector in Ireland. Achieving further fast growth in living standards for everyone will therefore require accelerating progress towards the development of a knowledge-based economy with a greater proportion of high income, high value-added jobs.

Enterprise 2010 advocates that the enterprise sector must remain the main engine of economic growth over the next decade. The report predicts that average GNP growth of five per cent per annum is attainable over the period. As the economy approaches full employment, however, economic expansion will be increasingly dependent on fast growth in productivity (output per employee), rather than employment. Overall, employment is unlikely to grow by more than two per cent per annum over the next 10 years, compared with growth in productivity of three per cent per annum. Labour market growth will increasingly depend on net inward migration and higher female participation. In this context, Enterprise 2010 has set the following targets for the enterprise sector:

- ▶ to grow productivity in the internationally traded sector by seven per cent per annum (in line with recent trends);
- to grow productivity by two per cent growth per annum in locally-traded services and public administration (double recent performance);
- ➤ to increase employment in the internationally traded sectors (manufacturing and internationally traded services) from 310,000 today to 400,000 in 2010;

- ➤ to increase employment in locally-traded services employment from 845,000 in 1998 to 1,150,000 by 2010; and
- ▶ to generate a sustained increase in net migration needed both to meet labour shortages and prevent spiralling wage inflation.

To achieve these targets, the development agencies will focus on:

- ➤ accelerating the shift towards high growth, high-tech, high productivity activities and away from productiontype activities towards more services orientated enterprises. Productivity growth must come from both shifts in employment toward higher value activities and through increasing the productivity of existing employees in all sectors of the economy;
- ▶ deepening the base of R&D performing companies and increasing business expenditure on R&D as a percentage of GDP from 1.11 per cent at present to 2.0 per cent in 2010, with a doubling in the number of R&D performing firms over the period;
- ▶ shifting development agency assistance from capacity support to capability support in areas such as human resource development, R&D, marketing and market development. Forfás recommends that capability support for indigenous industry be increased from 40 per cent of agency budgets in 1998 to 65 per cent by 2003 and that it be reviewed thereafter:
- ▶ increasing training expenditure by all enterprises as a proportion of total labour cost from its current level of 1.5 per cent to above 3.0 per cent by 2010; and
- directing 50 per cent of new greenfield FDI employment towards locations in the Border, Midland and West (BMW) region.

Enterprise 2010 also identified the need for a rapid and sustained improvement in the environment for business development to support productivity growth and maintain competitiveness. Institutions, policies and physical infrastructure must provide a logical and extensive support framework for enterprise in order that a high productivity, high value-added economy develop. Some of the key recommended actions are to:

- undertake an all-encompassing programme of regulatory reform, particularly in the areas of business services and public transport;
- improve funding opportunities available to SMEs by encouraging greater competition in the banking sector and continually increasing the technology appraisal capability of the investment community;
- develop and encourage the adoption of alternative forms of remuneration including profit sharing and share options;
- ▶ accelerate investment in infrastructure over the period of the National Development Plan, particularly in the areas of roads, transport systems, environmental services, broadband telecommunications and energy;
- undertake necessary institutional reform, especially in respect of the planning process, to ensure effective implementation of infrastructure projects.

The objectives and recommendations set out in *Enterprise 2010* were incorporated in the NESC report on *Opportunities, Challenges and Capacities for Choice* published in November 1999 which formed the basis for the discussions on the National Partnership Agreement.

### **Electronic Business**

One of the most significant drivers of enterprise development over the next three to five years will be e-business and the information and communications technologies (ICTs) that support it. Ireland's success in exploiting the opportunities involved will be a critical determinant of future growth in competitiveness, income, employment and productivity.

During 1999, Forfás examined, at the request of the Tánaiste and Minister for Enterprise, Trade & Employment, the key enterprise policy implications of the development of e-business for key sectors of the Irish economy. Forfás published its policy action plan in a report entitled, *E-Commerce: The Policy Requirements*, in July 1999.

The report sets out over 130 recommendations for action by Government, the development agencies and by firms and business organisations in order to develop a conducive, secure and competitive business environment for e-commerce in Ireland, to develop Ireland as a leader in emerging e-commerce sectors and to ensure that businesses in all sectors of economic activity are aware and enabled to harness the full potential of e-commerce.

Work is continuing with the Department of Enterprise, Trade & Employment and the social partners on achieving speedy implementation of the report's recommendations.

#### VAT on e-Business

The taxing of e-business sales to private consumers in Europe from Ireland was identified as a key competitiveness issue in the Forfás report. The VAT rate of the country of supply applies to the digital sale of services to private consumers, such as software, music and education and training products. Ireland's VAT rate of 21 per cent on such services is higher than other countries such as the UK, the Netherlands and Germany and could place Ireland at a competitive disadvantage as a hub for the distribution of such services to consumers across Europe. It will also mean that Irish consumers could purchase digital services from these locations at a lower rate of VAT, thereby placing Irish service suppliers at a competitive disadvantage in the home market. Forfás has advocated that Ireland should propose to the EU that this VAT regime be amended so that the VAT rate of the country of consumption applies, so as not to distort trade in the common market. Forfás submitted a report to the Department of Enterprise, Trade & Employment and the Revenue Commissioners and others, outlining a proposal on the treatment of VAT on e-commerce in Ireland.

### **Market Share - Trade**

Forfás prepared a review of Ireland's competitive position in the European Union over the period 1987 to 1997. The Forfás review recognised market share as a clear indicator of sustained growth, and as such, could become one of the key indicators of output performance for the development agencies. While Ireland's share of the EU market is small in comparative terms, preliminary findings have revealed that the rate of growth in this area exceeds that of most other EU Member States. Some of the main Forfás findings were:

▶ Ireland's share of the EU market grew from 1.18 per cent in 1987 to 1.77 per cent in 1997 - an increase of 50 per cent. This compares with an increase of 12 per cent in the UK's share of this market over the same period;

- ▶ products made by Irish indigenous industry increased their share in this market by just four per cent over this period, compared with an increase of 79 per cent for products made by foreign-owned Irish-based companies;
- ▶ Ireland had the highest growth rate amongst other Member States within Continental EU - 70 per cent increase in market share;
- ▶ there was evidence of a diversification to EU continental markets and a general broadening of market bases.

It is intended that Forfás will follow up this work with a further analysis at sectoral level to comprehensively identify and monitor developments in Ireland's international market share.

### **World Trade Organisation**

Forfás assisted the Department of Enterprise, Trade & Employment in preparing for the new round of Multilateral Trade Negotiations - the Millennium Round - during 1999. The stalling of the trade talks in Seattle last December has emphasised the need for more preparatory work to be completed internationally, and raises the spectre of possible adverse effects on Irish trade should the talks fail to lead to meaningful negotiations.

It is most important that the process of continuous market opening is not delayed and that any move towards protectionism is resisted. Forfás has outlined the priority items from Ireland's trade policy standpoint as:

- continued opening of overseas markets;
- maintaining a balance between US investment interests and Ireland's EU responsibilities;
- establishing a reasonable framework in which to negotiate agriculture issues;
- ensuring that Ireland's concern for the needs of developing countries are addressed; and
- ▶ strengthening the WTO so that it can fulfil its mandate.



For Ireland's economy to continue its expansion, it is important that every effort is made by Irish policy makers to ensure that the work of the WTO to further open markets is continued. To achieve this, it is necessary that the Seattle Ministerial be reconvened as soon as possible to reach agreement on how the new round of negotiations is to be organised.

Forfás prepared a number of papers in preparation for the Seattle Ministerial including:

- ▶ the EU's WTO objectives;
- ► the US WTO objectives;
- ▶ WTO priorities for developing countries; and
- recommendations for Ireland's trade position during the WTO negotiations.

The Irish delegation to the Seattle Ministerial Conference included a Forfás representative. During the year Forfás contributed to the preparation of a report by the Institute of European Affairs entitled, "The World Trade Organisation: Issues for the Millennium Round". The report summarised Irish sectoral interests in the WTO negotiations, and was presented to seminars in conjunction with IBEC, the aim of which was to raise enterprise awareness of world trade issues.

### Infrastructure and Regional Development

Forfás conducted an evaluation of the infrastructure needs of the enterprise sector in the regions. This project was undertaken in response to concerns about inadequate infrastructure capacity, regional imbalances in enterprise activity and the fundamental role of infrastructure in



supporting enterprise development. The priority areas for infrastructure investment in the years ahead were identified following a series of consultations with the development agencies and enterprise representative bodies in the regions. Improved accessibility - both physical and electronic - was identified as an essential condition for development of enterprise in the regions. Access infrastructures such as roads and telecommunications, which directly impact on the exchange of goods, services and information were viewed as priority investments. In the light of this work, Forfás recommended an increased allocation of resources toward investment in the national road network and information and communications infrastructure. Specifically Forfás recommended:

- an acceleration of the National Road Investment
   Programme so that primary roads identified as crucial to development of the regions are completed by 2006;
- construction of motorway standard road links between major urban centres;
- an accelerated programme to complete town by-pass projects to eliminate bottlenecks and to reduce transit times:
- ► annual expenditure of IR£590 (€749.1) million for the period 2000 to 2006 on road-building, exclusive of Public Private Partnerships;
- expedited roll-out of regional broadband telecommunications; and
- increased pre-planning of road and other infrastructure projects to reduce completion times.

The proposals set out in the *National Development Plan* (*NDP*) 2000-2006 adequately address the priority investment areas identified by Forfás. Indeed, as a measure of the significance now attached to investment in economic and social infrastructure, the NDP allocates 43 per cent of its total budget to this category of expenditure. The Plan has responded to Forfás recommendations in this area by committing IR£4.7 ( $\in$ 6.0) billion for investment in national roads and IR£120 ( $\in$ 152.4) million for advanced telecommunications. In addition, certain provisions of the new Planning and Development Bill 1999, when enacted, will reduce the time delays with respect to delivering infrastructure by approximately eighteen months.

The NDP also acknowledged the important role that Public Private Partnerships (PPPs) can play in certain sectors. In the year 2000 budget, the Minister for Finance reemphasised the Government's commitment to using PPPs in addressing infrastructural needs where value for money and improved delivery of infrastructure projects could be demonstrated. Forfás has participated on the PPP Informal Advisory Group, established by the Department of Finance to provide a forum that allows communication amongst different parties with an interest in the PPP process. In 1999, the Group identified a number of tax, finance, tendering and legal issues that could impede the progress of PPPs and recommended solutions and actions needed to resolve these issues. The reports on these issues prepared by the Group were submitted to the Interdepartmental Committee on PPPs at the end of 1999.

As a follow-up to work on the infrastructure priorities of the regions, the Tánaiste requested Forfás to undertake an "audit" of the physical, economic and social infrastructures of the regions. These audits will compile data on, for example, transport, energy and environmental services, demography, skills and social and recreational facilities. This project is ongoing and will result in the preparation of a database of the infrastructures available for enterprise promotion and development in various locations. The database will help policy makers assess the developmental potential of the regions and their likely future investment needs. It will also contribute to the formulation of a National Spatial Strategy (NSS), which will attempt to identify a desired pattern of spatial development that balances the need for national economic growth and regional balance with considerations of efficiency and equity.

### Tax and Public Expenditure

Research undertaken by Forfás has advanced the case that, from an enterprise perspective, taxation policy should focus on the achievement of a number of key objectives as follows:

- the creation of an environment favourable to enterprise development and risk-taking by business promoters and entrepreneurs;
- encouraging more people to participate in the workplace and facilitating investment designed to increase productivity; and
- off-setting cost disadvantages in Ireland compared with other investment locations.

In order to achieve these objectives, Forfás has consistently recommended that the overall level of taxation on individuals and businesses should continue to be reduced, including personal tax and PRSI, corporation tax, capital gains tax and taxes on goods and services. Much has been achieved in implementing the recommendations of Forfás and the development agencies in this area, and this has helped to improve Ireland's competitive position.

### Tax Burden

At 39.7 per cent of GNP in 1997, tax and social security contributions in Ireland were lower than the EU average of 42.4 per cent. However, the composition of taxation is different. Personal taxes, corporate taxation and taxes on goods and services were all higher in Ireland (as a percentage of GNP), while social security contributions at 5.2 per cent of GNP were significantly lower than the EU average of 15.0 per cent.

Consistent with recommendations made by Forfás, the overall level of taxation and PRSI in the economy has reduced from 40 per cent of GNP in 1995 to 37.2 per cent in 1999 and is projected by the Department of Finance to fall to approximately 36.0 per cent of GNP by the year 2002. Forfás supports this downward trend in taxation as a percentage of GNP which is assisted by effective control of Government expenditure, low rates of taxation and by a shift of resources from the public to the market sector of the economy consistent with overall social and economic objectives. Reducing the burden of taxation in the economy in such ways is, up to a point which varies with the economic and demographic structure of the economy, consistent with achieving increases in the level of resources available to the Government to invest in social and economic objectives.

### Tax Wedge

Forfás has recommended that the tax and social welfare systems should continue to be co-ordinated in order to promote social inclusion and reduce impediments to employment. The tax wedge measures the difference between employee net pay and gross employment cost, and is a key determinant of Ireland's international competitiveness. A large tax wedge impacts negatively on employment, affects wage bargaining and increases total labour cost. While our income tax and social security contributions are lower in total than the EU average, they are higher than the UK, a key competitor country. The thrust of policy advocated by Forfás has been to reduce the extent of the tax wedge in Ireland compared with competitor countries, particularly the UK, to make Ireland a more attractive location for business, and for high-skilled employees.

Much has been achieved to improve our competitiveness in this area. At a wage level of IR£15,000 (€19,046), after the year 2000 budget measures, the tax wedge for a single person is 5.5 per cent lower in Ireland than in the UK; at a wage level of IR£30,000 (€38,092), the tax wedge is, however, 19 per cent higher in Ireland than in the UK. This is a significant improvement on the position in 1994/95 when the tax wedge for a single person on the average industrial wage in Ireland was 19 per cent higher than the UK. The tax wedge is generally lower in Ireland than the UK for married couples.

### **Corporation Tax**

From 1 January, 2003, a low rate of corporation tax rate of 12.5 per cent will apply to all trading income, and a rate of 25 per cent to non-trading income. This is in line with recommendations made by Forfás that a single low rate would continue to make Ireland an attractive location for foreign direct investment, and would also stimulate activity in the wider services sector by allowing firms to retain more of their profits for investment.

Many smaller firms in the services sector will benefit immediately from this measure as, with effect from 1 January, 2000, the 12.5 per cent tax rate will apply to the trading income of companies earning profits up to IR£50,000 (€63,487) per annum and marginal relief will apply to profits between IR£50,000 (€63,487) and IR£75,000 (€95,230).

### Capital Gains Tax (CGT)

CGT was reduced from 40 per cent to 20 per cent in the 1998 budget. This is in line with recommendations made by

Forfás that a lower rate of capital gains tax can provide a boost to entrepreneurship and facilitate the creation in Ireland of businesses of a scale necessary to compete in the international marketplace. Revenue from capital taxes has grown from IR£132 ( $\leqslant$ 168) million in 1997 to IR£358 ( $\leqslant$ 455) million in 1999, an increase of 171 per cent. This would indicate that the lower rate has also encouraged a greater level of asset disposals.

#### Taxes on Goods and Services

Value Added Taxes (VAT) and customs and excise duties, as a percentage of GNP and as a percentage of total taxation, are above the EU average. This is partly because Ireland has a high standard rate of VAT (21 per cent) compared with most other EU countries. Forfás has concluded that this comparatively higher rate of VAT on consumption has competitiveness implications for the development of business to private consumer e-commerce activities, a sector with significant growth potential in the future. Forfás recommends that Irish authorities consider the implementation of a VAT regime that will facilitate the growth and development of e-business and promote Ireland as a competitive and attractive location for digital distribution.

### **Finance**

### Public Private Partnerships (PPPs)

The provision of a high standard of infrastructure is crucial to the continued attraction of new investment and to the development of the existing base of Irish and foreign-owned companies.

Forfás has undertaken work on the scope of alternative sources of finance, such as PPPs, to fund infrastructural developments in the light of the curtailment of EU Structural Funds and the large deficit in infrastructural investment. PPPs can cover a range of possibilities, from having the private sector design and build a project to having it design, build, finance and operate it. In deciding on a PPP project, it is important that measurable output and operational criteria should be laid down for each project, and output and operations assessed against these.

In 1998, Forfás was appointed to an Advisory Group, established by the Minister for Finance alongside an Interdepartmental group, to consider the potential contribution of PPPs to meet infrastructural needs. Forfás continued to participate in the work of this group in 1999, and was also



involved in two other subgroups set up to examine Tax/Finance/Tendering/Legal and other key PPP issues. These groups identified matters that might cause immediate obstacles to the PPP process and suggested means to address these obstacles. The pilot PPP projects, announced by Government in June 1999, will provide a basis to address other issues.

These pilot PPP projects (valued at IR£600 (€762) million) in roads, water supply and solid waste have since been augmented by further projects in the education sector. The National Development Plan has a minimum target for PPPs of IR£1.85 (€2.35) billion to be privately financed over the seven year period of the plan, 2000 to 2006. This includes almost 25 per cent of the national road (about IR£1 (€1.3) billion) expenditure for the period. The other sectors for PPP investment are water supply (IR£100 (€127) million), LUAS/long term suburban rail (IR£300 (€381) million) and waste management (IR£450 (€572) million). The circumstances in which consortium relief for tax losses may be made available was also addressed in the Finance Act 2000. This will facilitate participation in PPP consortia by allowing PPP consortium members to offset the trading losses of a company, owned by the consortium, against profits in proportion to their interest in the consortium.

### Provision of Risk Capital

To grow and develop, businesses need access to adequate sources of finance on reasonable terms. The shortage of seed and venture capital and long-term credit finance for emerging businesses is a critical issue for enterprise development in Ireland. Young fast growing firms have been the main source of job creation in the US and UK, and are likely to become more so with the rise of e-commerce and the opportunities it presents for entrepreneurs. Forfás has worked to increase the availability of seed and early stage capital and a number of initiatives have been taken to achieve this, including the following:

- b the seed and venture capital measure contained in the EU Operational Programme for Industry 1994/99, which provided circa IR£33 (€42) million for investment in smaller projects through venture capital intermediaries, matched by a further circa IR£33 (€42) million from the private sector. Forfás is a member of the Approvals Committee that allocates funds provided under this measure;
- a IR£10 (€12.7) million seed/early stage capital fund (Enterprise 2000 Fund) established as a joint venture between Enterprise Ireland and Bank of Ireland to invest in smaller firms. Forfás is represented on the Approvals Committee of this fund:
- ➤ a IR£1 (€1.27) million Millennium Entrepreneurs Fund sponsored by Enterprise Ireland to attract Irish people abroad with specialist skills back to Ireland to progress projects leading to high technology, high potential start-ups.

Work undertaken by Forfás and the development agencies found that part of the reason for the shortage of seed and early stage capital is the limited capability of investment/ support bodies generally in Ireland to assess the commercial potential of emerging high-technology firms seeking to raise finance. The major asset of many such firms is intellectual property rather than fixed asset backing that lending institutions have traditionally relied on for security.

To grow and develop, smaller firms also need access to credit finance at reasonable cost. Small Irish firms, particularly high-technology enterprises, often face problems accessing longer-term loans at reasonable cost. Research undertaken by Forfás shows that some smaller firms were paying up to 5.5 percentage points above wholesale rates. There is also a very high reliance on overdraft finance in Ireland compared with other EU countries, where long-term loans at fixed rates of interest are much more prevalent. There is also a danger that increased competition in the delivery of banking services under EMU will not benefit smaller firms, because of the relationship nature of SME banking in Ireland. Forfás therefore welcomes the strategic review of the future of Irish banking, announced by the Minister for Finance, which is ongoing.

Forfás has advocated for some time that the opportunities for Irish pension funds and other financial institutions to invest in the Irish economy should be enhanced. Pension funds and life assurance companies accounted for IR£47.8 (€60.7) billion of national savings in 1999. However, an increasing proportion of these funds has been invested abroad over the past decade, and this trend is expected to continue, and perhaps accelerate, as a result of EMU. For example, in 1990, 74.6 per cent of the assets of Irish pension funds and life companies were invested in the Irish economy, but by 1999 this had fallen to 43.5 per cent. In the past the opportunities available to institutional fund managers to make large-scale investments in the Irish economy were limited. Now, however, new opportunities have been provided by the public private partnership (PPP) approach to infrastructural investment, investment in State enterprises and utilities and increased venture capital and capital market activity.

Forfás considers that a number of measures are necessary in order to: (a) improve the financing of innovation; (b) increase the access of emerging and growth-oriented firms to finance for development; and (c) facilitate a greater level of investment in the Irish economy. These include:

- ▶ the continuation of the partnership approach between the development agencies and the financial institutions, in order to share the risks of venture capital initiatives in the following areas:
  - early-stage investment and high-technology sectors, such as biotechnology and e-business;
  - smaller enterprises in all sectors, in order to encourage entrepreneurship;
- encouragement of the financial institutions to strengthen their technology appraisal capability to assist promoters of high-technology projects to raise equity and credit finance on suitable terms:
- ▶ the promotion of increased competition in the banking market for smaller firms in order to increase their access to development finance at reasonable cost;
- encouraging Irish life and pension funds to increase their investment in the Irish economy, particularly through participation in PPP projects and investment in State enterprises.

### The Planning Process

A significant constraint on the ability of the economy to increase its stock of economic infrastructure is the time required to design, plan and execute capital projects in a manner that complies with environmental regulations and the rights of citizens and property owners. In turn, these requirements are supplemented by a complex delivery process that involves numerous institutional and administrative procedures. The net effect has been one where investing in new or improved infrastructure is an extremely time-consuming endeavour. For example, the planning process for certain kinds of engineering projects, such as roads, can take over five years from conception to start-up on site. As such, there is an unacceptably long delay between identifying the need for infrastructure and its actual provision on the ground.

Forfás contends that this gap could be substantially reduced through extensive strategic planning that is designed to anticipate the needs of the economy. However, the efficient and timely delivery of infrastructure will also require institutional changes, a willingness to speed up decision-making and, most important of all, identification and elimination of unnecessary barriers to implementation.

In 1999, the Government introduced a new draft Planning and Development Bill that includes provisions to speed up decisions on compulsory purchase orders and road schemes and to establish a special division of the High Court to preside over judicial reviews of infrastructure projects. Forfás provided an assessment of the new Bill to the Department of Enterprise, Trade & Employment and discussed relevant provisions with both the National Roads Authority (NRA) and ESB to identify the likely impact of the Bill in terms of providing road and electricity infrastructure.

Forfás believes that an appropriate medium-term target for the planning process should be a reduction of the time between the initiation of a strategically important project, for example, the Dublin Port Tunnel, and commencement on site. The current time lag should be reduced by at least two years and preferably more. To achieve this goal, the relevant provisions of the draft Planning and Development Bill should be adopted forthwith. Clearly, the successful implementation of the *National Development Plan 2000-2006*, particularly in relation to economic infrastructure, will depend on initiating the improvements in the planning process contained in the Bill.

### **Electricity**

A central theme of the Forfás work programme in 1999 was identification and evaluation of potential constraints on further development of the enterprise sector. As part of a review of constraints in the area of economic infrastructure, electricity emerged as an issue of great significance. It was shown that several areas of the country did not possess the level of electricity supply required to support large-scale enterprise development. This finding has important implications for efforts to encourage greater spatial balance in the distribution of economic activity.

To address this situation, Forfás and IDA Ireland consulted with the ESB to gain a better understanding of the issues involved. An informal group has been established to keep the relevant parties appraised of developments in respect of electricity supply. The situation is a complex one since the electricity market is being liberalised and the role and responsibilities of the ESB in the areas of power generation, transmission and distribution will change. This restructuring of the electricity market will have consequences for the spatial development of the electricity network (national grid) and the power supply made available in various locations.

Currently, the ESB is liaising with Forfás in the preparation of a database describing the electricity infrastructure available to support enterprise development in the regions. This exercise forms part of a larger project involving the design of a comprehensive database of regional physical and social infrastructures. When completed, this database will provide the industrial development agencies with a valuable planning and decision-making tool.

### Coordination

### Introduction

Coordination of the industrial development agencies is a core function of Forfás. This is achieved through a number of mechanisms, including the Board of Forfás, of which the Chief Executives of the industrial development agencies and the Secretary General of the Department of Enterprise, Trade & Employment are members, and an Inter-Agency Planning Managers' Group, chaired by Forfás, the function of which is to facilitate an integrated approach by the development agencies to the development needs of the enterprise sector.

Forfás also operates a number of cross-agency working groups on specific policy areas and works closely with individual agencies to help achieve operational consistency. This section of the report provides a brief overview of some of the areas of coordination in which Forfás is involved.

### **Awareness Campaigns**

Forfás coordinates awareness campaigns on EMU, Science, Technology & Innovation and Skills.



### EMU Business Awareness Campaign

The EMU Business Awareness Campaign, managed by Forfás as an integral part of the Government's National Information Programme on the euro, continued throughout 1999 with its primary objective to produce and disseminate information on issues relating to EMU and the changeover to the euro by Irish business. A Consultative Committee draws together all the main, business, trade and professional organisations involved in enterprise in Ireland together with the relevant state development agencies. There are also various specialist working groups examining the specific issues for business in key areas of the changeover such as information technology, training and the retail sector.

As part of the Business Awareness Campaign in 1999, Forfás updated and extended the range of publications available to business relating to conversion issues. The primary information resource, the *Information Pack*, underwent considerable textual revision to take account of the successful launch of EMU on 1 January 1999. A number of new documents were also added to the *Information Pack* in 1999, including a new guide to Conversion and Rounding. This illustrates how to properly carry out conversions between the Irish pound and euro, as well as conversions between one participating currency and another, and between the euro and a non-participating currency. Other new documents added to the *Information Pack* included four new case studies illustrating how firms can utilise the Campaign's planning tools to determine the various

strategic and functional aspects of the changeover; a payroll guide; a training guide; and, the National Code of Practice on the Dual Display of Prices.

The Campaign's shorter guide for companies in the SME sector was revised in early 1999 to include the fixed currency conversion rates and information on conversion and rounding. A new guide was also produced in co-operation with the Northern Ireland Euro Preparations Unit to facilitate those companies involved in cross border trade.

Forfás continued to distribute information to the business community through the existing channels that have been established by the Campaign. In addition, the Campaign continued to maintain its database of individual enquirers now totalling approximately 6,200 businesses. During the year, the Campaign circulated 7,544 copies of the Information Pack (bringing the overall total to 59,481), 42,381 SME brochures (bringing the total to 146,882), 5,907 copies of the IT guide (bringing the total to 44,922), 9,507 copies of the retail guidelines (bringing the total to 93,713) and 27,977 copies of the guide to cross border trade. In addition, three issues of the Campaign's newsletter Eurochange were produced. In total, 29,874 copies of issue no. 10 (June), 30,555 copies of issue no. 11 (September) and 28,879 of issue no. 12 (December) were circulated to members of the Consultative Committee, the individual register and members of the media.

The Campaign continued to promote its key messages to the enterprise sector using the medium of advertising. Two dedicated print advertising campaigns were undertaken during the year utilising the national newspapers, business and trade magazines and the provincial press. The main objectives of these campaigns were initially to highlight the range of publications available to assist businesses with preparations for EMU and latterly to encourage all firms to take immediate action, rather than delaying preparations until later in the changeover period. On an ongoing basis, the Campaign continued to advertise in relevant publications featuring special supplements or features on EMU.

The Campaign also continued with a wide range of other information activities, including stands at exhibitions and conferences, presentations at meetings and seminars as well as handling a large number of queries on the Campaign's help-line for businesses. In excess of 2,000 queries were handled by the Campaign during 1999, consisting of telephone, e-mail, fax and postal enquiries.

The Campaign continued to monitor the progress of Irish firms in preparing for the changeover by means of statistical surveys to assess levels of awareness and preparedness, conducted at regular intervals throughout the year. Two surveys, in July and December, were conducted during the year. The results from these surveys provided direction to the Campaign in terms of identifying areas of information deficit as well as those sectors that require more assistance. These studies have provided a benchmark with regard to the levels of practical action undertaken or planned by businesses with regard to transactions in euro during the transitional period. While progress has been made with regard to the overall levels of preparation by Irish firms, the findings revealed that many businesses are delaying key changeover decisions, and that many firms intend to delay practical preparations until the latest possible time.

A significant development in the Campaign in 1999 was the launch of the Loughrea Euro Town Project. With the assistance of a panel of specially appointed consultants, a total of 31 firms in the area have agreed to change over to euro-based trading on an accelerated basis. The participating firms have drawn up detailed changeover plans for their particular business. This project, which was launched in March last year, is intended as a demonstration exercise in which the business community throughout Ireland will learn lessons from the experiences of businesses in Loughrea. The next phase of the project is the actual implementation by the participating firms of their specific changeover plans, so that they will be operating in euro to the fullest extent possible by October 2000 at the very latest. Their experiences in drawing up and implementing their changeover plans, and in identifying and dealing with the difficulties which they encounter, will be documented and communicated through a variety of media to the wider business community. The project is based on an original concept by the Loughrea Chamber of Commerce and has been developed by the Forfás EMU Business Awareness Campaign with the support of the Euro Changeover Board of Ireland (ECBI) and the Department of Enterprise, Trade & Employment.

The Campaign initiated two new studies during 1999. A Business Strategies Study was undertaken to explore the strategic options available to Irish companies, particularly SMEs, in order to take advantage of the opportunities EMU has created in completing the Single Market. Arising from the study, guidelines and recommendations appropriate to

Irish companies wishing to start or increase their business links with other EMU countries are being prepared. These guidelines will form the basis for three new inserts to be included in the Campaign's Information Pack as well as a booklet on the key issues for business. In addition, a study of the software industry in Ireland was conducted which sought to determine the level and extent of euro-compliant software solutions that are currently available to Irish businesses.

### **STI Awareness Programme**



The fourth year of the Science, Technology and Innovation (STI) Awareness Programme was the most successful to date. A number of new events were introduced to the Programme. The first ever Science & Technology Journalism Awards were held; an exciting new initiative for national schools, Primary Science Day, was piloted in 500 schools; and, a National Poll was conducted to monitor attitudes towards careers in science and towards scientific inventions. Throughout 1999, there was increased media coverage of scientific matters and this was particularly evident during Science Week Ireland, which enjoyed extensive coverage on television, radio and in national and regional print media.

The 1999 Programme included:

▶ the National Innovation Awards, co-sponsored by The Irish Times and PricewaterhouseCoopers, which recognises and rewards Irish business for their innovation culture. The standard of entries has consistently improved since the inception of the Award Scheme;

Tellabs won the Large Business and Overall Award for the development of switching technology, which allows telephone exchanges to operate more efficiently, using one relatively small piece of equipment to route both data and voice calls;

the research team in the Cork plant of The Odlum Group was awarded the Medium Business Award for the development of a heat-treated flour that has allowed the company to diversify its customer base; the award in the Small Business category went to SELC Ireland. SELC manufactures a range of products which switch street and public lights on and off automatically. The company's customers include local authorities, electrical supply utilities, cities and airport authorities around the world;

- ➤ STI News, published three times in the course of the year. Covering details of the programme, Irish success stories in the STI field and other issues of interest, the newsletter has a circulation of over 3,000 per issue;
- ▶ a National Poll undertaken in May/June 1999 by
  Behaviour & Attitudes. The Poll surveyed 1,200 adults on
  the views and attitudes towards a host of scientific fields
  such as transport, leisure, communications, the home
  and the workplace. The survey also provided information
  on attitudes towards the education system and towards
  careers in science, parents' attitudes towards the
  prospect of a career in science for their children and the
  numbers studying the sciences in school or college. The
  results of the poll were released between July and
  October 1999;
- ➤ Science Week Ireland, which took place on 7-14

  November 1999. Science Week Ireland aims to encourage young people to consider careers in science and technology, and their parents to look again at the opportunities in these areas for their children and to create greater awareness of matters scientific among the general public;

through the visit of NASA Astronaut, Dr. Stephen Robinson, the thrill of space travel was conveyed to large audiences at locations throughout the country. The growing regional focus of the Week was evident at the 2nd Galway Science & Technology Exhibition at Leisureland and the Inaugural Limerick Science Fair, both of which took place on 7 November. Waterford and Cork also took up the challenge and organised an exciting week of events.

▶ Primary Science Day, which took place in November 1999 as part of Science Week Ireland. A resource pack on the theme of Temperature was designed in collaboration with the Irish National Teachers Organisation (INTO) and the Dun Laoghaire Institute of Art, Design & Technology, and distributed to 500 randomly selected schools throughout the country. The pack contained fun worksheets for all class levels and a variety of thermometers to help with the activities.

- ▶ The sixth Irish Innovation Lecture, which took place in Belfast on 29 November 1999. Guest lecturers Mr. Lutz Sauvant, Senior Designer with Audi AG, and Professor Erik Spiekerman, Managing Director of MetaDesign, addressed the theme "design innovation". Both speakers outlined the importance of innovation as a key ingredient to enterprise success and spoke of the remarkable turnaround in Audi's success by using design innovation and clever re-branding and marketing.
- ▶ The Inaugural Science & Technology Journalism Awards, co-sponsored by IBM Ireland, introduced in 1999 to recognise the growth and diversity of science and technology journalism. The twin objectives of the Awards are to encourage the highest possible standards of journalism in science and technology and to acknowledge the dramatic increase of journalism in these fields. The Awards were presented by Mr. Noel Treacy, T.D., Minister for Science, Technology & Commerce on 7 December 1999. The Overall Award for the Best Piece of Science & Technology Journalism 1999 was awarded jointly to Anne Roper and Keelin Shanley for the production and presentation of 'It came from Outer Space', episode 2 of RTE TV's Big Science series aired in 1998.
- ▶ The Irish Scientist Yearbook 1999, which contains the best of scientific research and other Irish STI issues, was funded and distributed at home and abroad.

### The National Skills Awareness Campaign



The National Skills Awareness Campaign is a sub-committee of the *Expert Group on Future Skills Needs*.

The purpose of the campaign is to raise awareness of, and generate increased interest in, the career opportunities available in the four technology sectors of electronic technicians, shared services, software and teleservices.

The campaign, which is managed by Forfás, is co-ordinated by a working group composed of IDA Ireland, Enterprise

During 1999 the campaign continued its varied programme of activities including a number of new innovative initiatives as follows:

Ireland, FÁS and the education and private sectors.

- recording a series of radio interviews for syndication to key local radio stations throughout the country over a four week period;
- ➤ producing the first ever Speakers Directory 1999/2000, which gives contact details of speakers from local industry for use by career guidance teachers in career talks, open days, school visits etc.;
- organising a week of radio interviews with a panel of speakers from local industries on Limerick 95FM;
- exhibiting at most of the premier career exhibitions and conferences throughout the year including FÁS
   Opportunities '99, the Irish Times Higher Options '99
   exhibition and the Small Firms Association Annual Conference;
- organising a "traffic stoppers" campaign, which involved distributing approximately 18,500 leaflets, highlighting the four targeted industry sectors, at traffic junctions in Dublin, Cork, Galway and Limerick;
- completing a dedicated National Skills Awareness
   Campaign website (www.forfas.ie/skills-awareness);
- organising the second Business Education and Training Partnership Forum which was attended by over 200 people from the education and industry sectors;
- sponsoring a series of careers columns in U Magazine communicating career information on the four industry sectors by profiling a young woman working in each of the relevant areas;
- participating in interviews on national television and radio and ensuring the continuous publication of relevant articles in national newspapers, supplements and magazines, throughout the year.

As in previous years, the campaign activities during 1999 have contributed significantly towards ensuring an increased interest among job seekers of the career opportunities available in the electronics, shared services, software and teleservices sectors.

#### **Ask Ireland**

In late 1998 the Foreign Earnings Committee<sup>7</sup>, chaired by Mr. Tom Kitt, T.D., Minister for Labour, Trade & Consumer Affairs announced an initiative to promote complementary promotional messages about Ireland in the areas of tourism, trade and investment via a portal website on the Internet. The objective of the initiative was to establish a consolidated Internet presence to deliver information to web users about Ireland which would allow them ease of access to tourism, investment or trade related information.

Minister Kitt launched the Ask Ireland website on 2 March, 1999, with the primary objective of maximising opportunities to increase Ireland's Foreign Earnings capacity. This initiative was a development of the Government's strong commitment to consolidated overseas representation in markets via the Ireland House concept and was aimed at developing a network of virtual Ireland houses using the World Wide Web. A distinguishing feature of the site is the way in which the key overseas-oriented departments and agencies of the State have come together to provide an interactive gateway entry point for their Internet resources and the extensive onward links to other relevant Irish sites. Site achievements include:

- winner of the Best Government Website Award at the Irish Business Internet Awards;
- nominated for the Reader's Choice Award at the Golden Spider Awards; and
- recipient of a 'five star' review in the dot.ie magazine's annual Government website report.

Forfás has been appointed the lead agency on this project. Plans for 2000 include site redesign, increased promotion internationally and broadening the number of active participants in the project.

<sup>7</sup> The Foreign Earnings Committee is a group representing Government Departments and State Agencies who have overseas promotion of Irish goods or services within their remit. It operates under the aegis of the Department of Enterprise, Trade & Employment and seeks to maximise the effectiveness of Ireland's promotional effort overseas. Membership in 1999 was Bord Bia, Bord Iascaigh Mhara, Bord Failte, Enterprise Ireland, Forfás, IDA Ireland, Department of Agriculture & Food, Department of Enterprise, Trade & Employment, Department of Foreign Affairs, Department of Marine & Natural Resources, Department of Tourism, Sport & Recreation and Shannon Development.

### European Framework Programmes for Research and Development

The EU's *Fifth Framework Programme (FP5)*, which covers all the research, technology development and demonstration activities to be funded by the EU until 2002, was launched in 1999. The total budget for FP5 is IR£11.8 (€15.0) billion. The research will concentrate on four main areas: Quality of Life; Energy, Environment and Sustainable Development; User-friendly Information Society; and Competitive and Sustainable Growth.

In Framework Programme projects, financial support is usually at a rate of 50 per cent of full costs, and projects are submitted in response to Calls for Proposals, normally by consortia with participants from a minimum of two countries.

Forfás is the National Co-ordinator in relation to EU research and technology policy developments, which includes the monitoring of Irish involvement in the Framework Programme on behalf of the Department of Enterprise, Trade & Employment. On the basis of Irish participation in the previous Framework Programme (FP4), where Irish researchers secured over IR£150 (€191) million in funding involving over 330 companies, the Minister for Science, Technology & Innovation expects Irish participation in FP5 to reach IR£200 (€254) million.

An important feature of involvement in the Framework Programme is the linkages that are developed by Irish industry, third level colleges and research institutes with organisations in other Members States and beyond. For industry, the programme assists with the harnessing of new technologies, the deepening of R&D capability, and the development of skills and capability of technical personnel. For academic researchers it provides support for collaborative work with industry and with researchers in other institutions.

The Cooperative Research Action for Technology (CRAFT) initiative within FP5 is particularly relevant for those Irish manufacturing companies whose horizons are international and who need to be aware of developments in their technologies but do not have the resources to invest in large, in-house R&D projects.

As the negotiation of a Framework Programme can take two years, involving the European Commission, the European

Parliament and the 15 Member State Governments through the EU Council, the national preparation necessary for the sixth Framework Programme - 2002 to 2006 (FP6) must start now. Forfás has been working during 1999 with the Department of Enterprise, Trade & Employment on the principles that should guide the preparation of a national position for FP6.

The key objective for the Department of Enterprise, Trade & Employment and Forfás in developing a national position in advance of each Framework Programme, and in subsequent negotiations with the EU commission and other Member States, is to optimise the opportunities within the Framework Programme for Irish researchers to participate and contribute to overall EU objectives through their research efforts.

#### **Monitoring and Review**

#### Introduction

Forfás carries out a number of reviews, including evaluations of publicly-funded development agency activities and technology programmes, on its own behalf and on behalf of the Department of Enterprise, Trade & Employment and of the Industry Evaluation Unit, which is part of the EU Structural Funds monitoring process.

Forfás is the primary organisation for the supply of information on the performance of the enterprise sector. It coordinates and undertakes an extensive programme of regular performance and competitiveness surveys. These include surveys of employment trends, corporation tax payments and spending by manufacturing and internationally traded services companies in the Irish economy. Surveys are also carried out into trends in research, development and innovation.

#### **Enterprise Areas Scheme**

The Enterprise Areas Scheme was introduced in the 1995 Finance Act to provide incentives to selected companies locating in disadvantaged areas in Dublin, Cork and Galway in order to promote economic development in those areas. The scheme was extended in the 1997 Finance Act to two further locations in Dublin (Cherry Orchard and Finglas), to Rosslare Harbour and to areas adjacent to seven regional

airports. Incentives available under the regional airport schemes must be sanctioned by the EU on a case by case basis. To date, the European Commission has approved only lands adjacent to Cork Airport and one project for Knock Airport.

Forfás, in consultation with Enterprise Ireland or IDA Ireland, as appropriate, recommends projects to the Minister for Enterprise, Trade & Employment, who issues a certificate entitling the projects concerned to benefit from the relevant tax and other incentives. Reliefs are available both to investors and to qualifying companies locating in the Enterprise Areas.

To qualify for incentives, companies must be engaged in manufacturing or computer services and in the case of Cork/Knock Airport, freight forwarding/logistical services are also eligible.

Forty five companies have benefited from the Enterprise Area incentives. These companies have the potential to create approximately 6,200 jobs in the Enterprise Areas. Of these jobs, approximately 3,500 permanent and almost 500 temporary jobs were in place by November 1999. The reliefs claimed by companies in the Enterprise Areas amounted to IR£1.2 ( $\in$ 1.5) million in 1998.

The Finance Act 2000 extended the Enterprise Area Scheme for those areas designated in 1997 that experienced delays in the planning process that precluded them from availing of the incentives in the scheme. A one-year extension to 31 December 2000 for the granting of capital allowances was granted, where 50 per cent of the project cost had been incurred by 31 December 1999.

### Evaluation of Irish Participation in the Fourth Framework Programme

The EU's Framework Programmes provide funding, on a competitive selection basis, to international consortia undertaking R&D in technology areas identified as priorities by the EU. This evaluation examined the operation and impacts in Ireland of the Fourth Framework Programme, which ran from 1994 to 1998. Ireland's involvement in the programme was judged to be highly successful; the IR£150 (€190) million of EU funding awarded to Irish participants was double that achieved in the previous Framework Programme and the number of companies that participated

was four times higher. Recommendations from the evaluation are aimed at further enhancing the benefits to Ireland of Framework Programme participation in the future.

#### **Review of National STI Support Programmes**

Over the past several years the Science and Technology Evaluation Unit in Forfás has organised and conducted assessments of over 20 national initiatives for supporting science, technology and innovation. Some of these were undertaken jointly with the EU-funded Industry Evaluation Unit, located in the Department of Enterprise, Trade & Employment. Early in 1999, the two groups collaborated on a review of the findings from all these assessments. The aim was to identify key lessons for the overall innovation support system and thereby provide, from an evaluation perspective, input to the new *National Development Plan* (2000-2006).

### Review of the Indigenous Biotechnology Industry

Biotechnology is of strategic importance for future economic growth in Ireland and for positioning the country as a knowledge-based economy. The review, jointly undertaken by Forfás and Enterprise Ireland, considered the developments in the field of biotechnology and assessed the key issues for the development of such a sector in Ireland. Issues considered included R&D infrastructure, skills, finance and intellectual property rights.

Forfás proposed a number of recommendations on the appropriate agency strategies to facilitate the development of an indigenous biotechnology sector and to encourage the diffusion of biotechnology in Irish industry. It was recommended that the development agencies assist their clients in capitalising on biotechnology developments and that the Government attaches a high priority to enhancing the biotechnology research infrastructure and skills development.

#### **Review of Software to Manage Euro Changeover**

In order to determine the level and extent of euro-compliant software solutions that are currently available to Irish businesses making the changeover, the Forfás EMU Business Awareness Campaign commissioned a study of the accounting software market in Ireland. The objective of the study was to determine what accounting software packages are currently available on the Irish market in order to assess whether there are likely to be difficulties in the changeover arising from a lack of suitable software or associated reasons. It was also intended that the study would identify any initiatives by the Campaign or at the level of Government policy that might be required to improve the situation with respect to the availability of suitable software. It is envisaged that as a result of the study, a short set of guidelines will most likely be prepared and disseminated to businesses that will seek to highlight some of the key issues arising from the study. These guidelines will complement the other detailed publications that the Campaign has produced in this area.

### Strategies for Competing in the Euro-zone - Guidelines for Irish Business

In addition, the Campaign commissioned PricewaterhouseCoopers to undertake a study exploring the strategic options available to Irish companies in order to take advantage of the opportunities EMU has created in completing the Single Market. The primary aim of the study was to develop a set of guidelines and recommendations appropriate to Irish companies, especially SMEs, wishing to start or increase their business links with other EMU countries, whether through exports, imports, or other forms of partnership. The guidelines arising from the study have now been included as additional publications in the Campaign's range of information material.

#### The Irish National Accreditation Board

The National Accreditation Board (NAB) is the Irish 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.

Through the NAB's membership of multilateral agreements, the Irish Accreditation status is recognised internationally. The main benefits of accreditation is that it plays a key role in guaranteeing the access of Irish products and services to the EU market and greatly reduces 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.

#### **NAB Functions**

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

#### (1) Laboratory Accreditation

Laboratory accreditation granted by the NAB is commonly referred to as "ILAB" accreditation. This is a formal recognition of the competence of the laboratory to perform specific tests.

During 1999 NAB accredited 9 laboratories bringing the total to 110. There were 73 enquiries and 15 applications in hand at year-end.

NAB carried out 85 surveillance inspections on accredited laboratories in the ILAB programme.

#### (2) 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 the EN ISO 14001 standard.

At end of 1999 NAB had accredited two certification bodies for Quality Management Certification and two certification bodies for Environmental Management Certification. These bodies have in turn certified more than 1,000 organisations to the ISO 9000 series of standards and 105 organisations to 14001 under NAB accreditation.

#### (3) Eco-Management and Audit Scheme (EMAS)

- (i) Accreditation of Environmental Verifiers. NAB accredits environmental verifiers who meet the requirements of EMAS, Council Regulation (EEC) No. 1836/93 of 23 June 1993. At the end of 1999, NAB had accredited one environmental verifier.
- (ii) Registration for sites participating in EMAS. Sites participating in EMAS have been independently audited by EMAS Verifiers and found to comply with the Council Regulation (EEC) No. 1836/93. NAB is the "Competent Body" in Ireland for the registration of sites participating in EMAS. During 1999 one site was registered bringing the total to seven.

#### (4) 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 1999 one body was accredited to this standard.

#### (5) 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. At the end of 1999 NAB also commenced a pilot accreditation scheme in support of the EU Directive on E-commerce.

#### (6) 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. GLP Compliance Statements for six facilities were re-confirmed in 1999.

## 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

In accordance with the Ethics in Public Office Act, 1995, Forfás Board Members have furnished a statement of interest to the Secretary and a copy has been provided to the Public Office Commission.

In addition, Forfás staff holding designated positions have completed statements of interest in compliance with the provisions of the Act.

#### **Personnel**

#### Equality

Forfás is committed to a policy of equal opportunity and adopts a positive approach to equality in the organisation. Forfás operates a number of schemes which provide staff with options in relation to meeting their career and personal needs, such as job sharing, study leave, education programmes and career breaks.

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

#### Worker Participation (State Enterprise) 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.

#### User's Charter

Forfás published a User's Charter in 1996 setting out its commitment to a high quality of service to clients and to the general public.

# Management Structure



**John Travers** Chief Executive



Colm Regan

Executive Director



Jim Bourke Enterprise & Trade Policy Division



Killian Halpin Science Technology & Innovation Division



Tom Dempsey The National Accreditation Board



Michael O'Leary Personnel Department



David Lovegrove Secretariat, Media, Facilities & Internal Audit Department



Terry Levin
Accounts Department



Eamon Kearney
Systems Department





#### The Members of the National Accreditation Board

Dr Márie Walsh (Chairperson)	State Laboratory
Dr Rosemary Boothman	Department of Health
Mr Sean Conlan	Excellence Ireland
Dr William Crowe	Irish Agrément Board
Mr Tom Dempsey	National Accreditation Board
Mr Martin Heraghty	Department of Agriculture and Food
Mr Ian Maclean	Environmental Protection Agency
Mr Eamonn Mullins	Trinity College Dublin
Mr William Noone	Department of Finance
Dr Michael O'Keeffe	Teagasc - The National Food Centre
Mr Joe Rowley (Deputy Chairperson)	AGB Scientific Ltd.

# Reports Published by Forfás 1999/2000

State Expenditure Priorities for 1999 Statement of the Irish Council for Science, Technology & Innovation (ICSTI)	January 1999
Business Education & Training Partnership Report on the Inaugural Forum, Royal Hospital Kilmainham	March 1999
Investing in Research, Technology and Innovation (RTI) in the Period 2000 to 2006 Statement of the Irish Council for Science, Technology & Innovation (ICSTI)	March 1999
State Investment in Science & Technology, 1998 Financial allocations by Government for 1998 to institutions engaged in any activity related to science and technology - the Science and Technology Budget for 1998	March 1999
Forfás/IBEC : Telecommunications for Business A User's Guide	April 1999
Technology Foresight Ireland Irish Council for Science, Technology & Innovation (ICSTI)	April 1999
Annual Competitiveness Report 1999 National Competitiveness Council (NCC)	April 1999
Statement on Costs National Competitiveness Council (NCC)	June 1999
1998 Forfás Employment Survey	July 1999
Report on e-Commerce - The Policy Requirements	July 1999
Forfás Annual Report 1998	August 1999
Annual Survey of Irish Economy Expenditures Results for 1997	August 1999
Social Partnership National Competitiveness Council (NCC)	September 1999
Survey of Research in the Higher Education Sector 1996	October 1999
Science in Second Level Schools Statement of the Irish Council for Science, Technology and Innovation (ICSTI)	January 2000
The Dynamics of the Retail Sector in Ireland	January 2000
Enterprise 2010	January 2000
Survey of Research & Development in the Business Sector 1997	February 2000
Benchmarking Science, Technology & Mathematics Education in Ireland Against International Good Practice	
Irish Council for Science, Technology and Innovation (ICSTI)	February 2000
Proposals on Transport Infrastructure, the Planning Process and Public Transport National Competitiveness Council (NCC)	March 2000
The Second Report of the Expert Group on Future Skills Needs	March 2000
Business Education & Training Partnership 2nd Forum, Dublin	March 2000
Management Development in the Republic of Ireland	May 2000
State Expenditure on Science & Technology, 1999	June 2000

# Forfás Advisory Groups

Dr Edward M. Walsh
Chairperson



Irish Council for Science, Technology and Innovation (ICSTI)

Dr Edward M. Walsh (Chairman)	President Emeritus	University of Limerick Foundation
Prof Jim Browne	Director, CIMRU	National University of Ireland Campus, Galway
Prof Emer Colleran	Department of Microbiology	National University of Ireland, Galway
Dr Alva DeVoy	Investment Analyst	Ulster Bank Investment Managers Ltd.
Dr Liam Downey	Director	Teagasc
Dr Brendan Goldsmith	President	Dublin Institute of Technology
Prof Jane Grimson	Computer Science Department	Trinity College Dublin
Mr Paul Holden	Managing Director	Rédacteurs Software Documentation Ltd.
Mr Gerry Jones	Chief Executive Officer	International Test Technologies Ltd.
Ms Josephine Lynch	Secretary to Council	Senior Scientific Officer, Forfás
Mr Colum MacDonnell	Former Chief Executive Officer	Irish Exporters' Association
Mr Joel McArdle	Sales Administrator	Unitherm Kestral
Prof David McConnell	Genetics Department	Trinity College Dublin
Dr Seán McDonagh	Director	Dundalk Institute of Technology
Prof Susan McKenna Lawlor	Department of Experimental Physics	St. Patrick's College, National University of Ireland, Maynooth
Mr Séamus McManus	Chairman	Irish Science Teachers' Association
Dr David Melody	Vice President for Research and Development	Loctite (Ireland) Ltd.
Dr Pat Morgan	Dean, Faculty of Science	National University of Ireland, Galway
Mr Ronan O'Caoimh	Chief Executive Officer	Trinity Biotech plc
Ms Ann Riordan	Country Business Manager	Microsoft Ltd.
Prof Michael Ryan	School of Computer Applications	Dublin City University
Mr Brian Sweeney	Deputy Chairman	Chairman, Siemens Group Ireland
Dr Don Thornhill	Chairman	Higher Education Authority
Mr John Travers	Chief Executive Officer	Forfás
Mr Brian Trench	School of Communications	Dublin City University
Mr Peter Walsh	Chief Executive Officer	Medtronic AVE

#### The following members of the Council retired in 1999

Mr Owen Conway, Development Director, Waterford Stanley Ltd. - retired October 1999

Prof Máire Mulcahy, Department of Zoology and Animal Ecology, National University of Ireland, Cork - retired September 1999

Prof Donald Fitzmaurice, Chemistry Development, National University of Ireland, Dublin - retired March 1999

Prof Cecily Kelleher, Department of Health Promotion, National University of Ireland, Galway - retired March 1999

Mr Joel McArdle, Sales Administrator, Unitherm Kestral - retired March 1999



#### **National Competitivness Council Members**

Mr Brian Patterson (Chairman)	Chief Executive	Waterford Wedgwood UK plc
Mr Kevin Bonner	Partner	Business Insight
Mr William Burgess	Chairman, Managing Director	IBM Ireland
Mr Donal Byrne	Managing Director and Chairman	Cadbury Ireland Ltd.
Mr Des Geraghty	President	SIPTU
Ms Jackie Harrison	Director - Enterprise	IBEC
Ms Annette Hughes¹	Economist	DKM Economic Consultants Ltd.
Ms Aine Mizzoni <sup>2</sup>	Chief Executive	E-Smart
Mr Billy McCann	Chairman	ESB
Mr Neil Ormonde <sup>3</sup>	Consultant	
Ms Patricia O'Donovan	Assistant General Secretary	ICTU
Mr John Travers	Chief Executive Officer	Forfás
Mr David Lovegrove (Secretary to Council)	Secretary	Forfás

- 1 Council Member from 23 April 1999
- 2 Council Member from 21 September 1999
- 3 Council Member from 27 October 1999

#### Special Advisors to the National Competitivness Council

Mr Phil Furlong⁴	Assistant Secretary	Department of Finance
Mr Dermot McCarthy	Assistant Secretary	Department of An Taoiseach
Mr Michael McKenna	Assistant Secretary	Department of Enterprise, Trade & Employment
Mr Brendan Tuohy⁵	Assistant Secretary	Department of Public Enterprise

- 4 Subsequently replaced by Mr. Jim O'Brien.
- **5** Subsequently replaced by Mr. Andrew Cullen.

#### **EMU Consultative Committee**

Mr John Travers (Chairman)	Chief Executive Officer	Forfás
Mr Sean Barron	European Affairs Manager	Shannon Development
Mr Remy Benoit	Member	ISME
Mr Noel Bolger	Manager, Research & EU Affairs	Udárás na Gaeltachta
Mr Jim Bourke	Manager, Enterprise, Policy and Planning Division	Forfás
Mr Harry Byrne	Member	Chartered Institute of Management Accountants

#### EMU Consultative Committee (cont.)

Mr Aidan Clifford	Technical Officer	ACCA
Mr David Croughan	Chief Economist	IBEC
Mr Pat Delaney	Director	Small Firms Association
Mr Joe Doherty	Senior Economist, Legal Affairs	Central Bank
Mr Shane Dolan <sup>1</sup>	Financial Controller	Irish Co-Operative Organisation Society
Mr Peter Fisher	Head of Consultancy Unit	Department of Enterprise, Trade & Employment
Ms Ailish Forde <sup>2</sup>	Director General	RGDATA
Mr Eoin Gahan	Senior Economist	Forfás
Ms Adrienne Harten	Project Executive	Chamber of Commerce of Ireland
Mr George Hennessy	Director Economic Affairs	Construction Industry Federation
Mr Jack Hickey	Accountant	CERT
Mr Muiris Kennedy	Director of Client Services	Bord Bia
Mr Jim Keogh	Industry Specialist	FÁS
Mr Brendan Leahy	Chief Executive	Irish Tourist Industry Confederation
Ms Elaine Mannix	International Relations	Central Bank
Mr Tom Martin	Secretary	Irish Coalition of Service Industries
Mr Ian Martin	Member	Small Firms Association
Ms Siobhan Masterson	Executive	Small Firms Association
Mr Oliver McAdam	Member	ISME
Mr Tim McCormick	Senior Specialist	Irish Management Institute
Ms Deirdre McDonnell	Chairman, Euro Working Party	Institute of Certified Public Accountants in Ireland
Mr Rody Molloy	Assistant Secretary	Department of Enterprise, Trade & Employment
Mr Ken Murphy	Director General	Law Society of Ireland
Ms Susan Noonan	Administrator	Irish Association of Corporate Treasurers
Mr John Norris	Principal	Euro Changeover Board of Ireland
Mr Paddy O'Boyle	Director, Euro and Projects	Institute of Chartered Accountants in Ireland
Mr Felix O'Regan	Manager IBS	Irish Bankers' Federation
Mr Brendan O'Sullivan	Manager - Strategy, Planning Division	IDA Ireland
Ms Colleen Quinn	Technical Officer	Institute of Certified Public Accountants in Ireland
Ms Rosemary Sexton	Corporate Planning Division	Enterprise Ireland
Mr Frank Vaughan	European Information Office	ICTU
Mr Anthony Watters	Financial Controller	CIE Tours International
Mr John Whelan	Chief Executive	Irish Exporters Association
Mr Tony White	Divisional Director	Chartered Institute of Management Accountants

<sup>1</sup> Mr. Dolan succeeded Ms. Mary Kennedy as the Irish Co-operative Organisation Society representative in May 2000.

 $<sup>{\</sup>bf 2} \; {\rm Ms.} \; {\rm Forde} \; {\rm succeeded} \; {\rm Mr.} \; {\rm Michael} \; {\rm Campbell} \; {\rm as} \; {\rm the} \; {\rm RGDATA} \; {\rm representative} \; {\rm in} \; {\rm May} \; {\rm 2000}.$ 

#### Secretariat

Ms Yvonne Cullen	Project Manager	EMU Business Awareness Campaign
Ms Irene Sadleir	Information Officer	EMU Business Awareness Campaign
Mr Geoff Tucker	Research Officer	EMU Business Awareness Campaign

#### **EMU Management Committee**

Mr John Travers (Chairman)	Chief Executive Officer	Forfás
Mr Jim Bourke	Manager, Enterprise Policy & Planning Division	Forfás
Mr Peter Fisher	Head of Consultancy Unit	Department of Enterprise, Trade & Employment
Mr Eoin Gahan	Senior Economist	Forfás
Mr John Kelly	European Monetary Affairs Department	The Central Bank
Mr Rody Molloy	Assistant Secretary	Department of Enterprise, Trade & Employment
Mr Gerard Moran	Corporate Management Division	Revenue Commissioners
Mr John Norris	Principal	Euro Changeover Board of Ireland
Mr Paddy O'Boyle	Director, Euro and Projects	Institute of Chartered Accountants in Ireland
Ms Anne Valentine	Manager, Euro Branch Business Transformation	AIB Group
Mr John Whelan	Chief Executive	Irish Exporters Association

#### Current Membership of Expert Group on Future Skills Needs

Dr Danny O'Hare (Chairperson)	President Emeritus, Dublin City University
Mr Roger Fox (Joint Secretary)	FÁS
Mr Seamus Gallen	Enterprise Ireland (National Software Directorate)
Ms Una Halligan	Hewlett Packard-IBEC
Mr John Hayden	Higher Education Authority
Mr David Lowe	Goodbody Stockbrokers
Mr Joe McCarthy	Arkaon
Mr Paddy McDonagh	Department of Education & Science
Dr Sean McDonagh	Director, Skills Initiative Unit
Mr Michael McGrath	Conference of Heads of Irish Universities
Mr Michael McKenna	Department of Enterprise, Trade & Employment
Mr Niall O'Donnellan	Enterprise Ireland
Mr Seamus O'Moráin	Department of Enterprise, Trade & Employment
Mr Lorcan O'Raghallaigh (Joint Secretary)	Forfás
Mr Dick Ryan	IDA Ireland
Mr Eugene O'Sullivan	Department of Finance
Mr Colm Regan	Forfás
Mr Peter Rigney	Irish Congress of Trade Unions
Professor Frances Ruane	Trinity College Dublin

#### Current Membership of Expert Group on Future Skills Needs (cont.)

Alternates	
Mr Ned Costello (Alternate to Mr Seamus O'Moráin)	Department of Enterprise, Trade & Employment
Mr Peter Lillis (Alternate to Mr Dick Ryan)	IDA Ireland
Mr Pat Maher (Alternate to Mr Niall O'Donnellan)	Enterprise Ireland
<b>Ms Margo Monaghan</b> (Alternate to Mr Michael McKenna)	Department of Enterprise, Trade & Employment
<b>⁄Ir Sean O'Foghlú</b> (Alternate to Mr John Hayden)	Higher Education Authority
Mr Gerry Pyke (Alternate to Mr Roger Fox)	FÁS
n attendance	
Mr Seamus Bannon	Forfás
Or Noel Gillatt	Forfás
As Kay Hallahan	Forfás
•	Forfás Forfás
Ms Kay Hallahan  Ms Brenda Gannon  Current Membership of the Management Imple  Or Danny O'Hare (Chairperson)	Forfás
Ms Brenda Gannon  Current Membership of the Management Imple	Forfás
Or Danny O'Hare (Chairperson)	Forfás ementation Group
Ms Brenda Gannon  Current Membership of the Management Imple  Or Danny O'Hare (Chairperson)  Mr Paul Haran	Forfás  ementation Group  Department of Enterprise, Trade & Employment
Or Danny O'Hare (Chairperson)  Mr John Dennehy	Forfás  ementation Group  Department of Enterprise, Trade & Employment Department of Education & Science

Mr Michael McKenna (Alternate to Mr Paul Haran)	Department of Enterprise, Trade & Employment
Mr Paddy McDonagh (Alternate to Mr John Dennehy)	Department of Education & Science

#### In attendance

Mr Colm Regan	Forfás
Ms Triona Dooney	Higher Education Authority
Mr Seamus Bannon	Forfás

#### National Skills Awareness Campaign

Mr Lorcan O'Raghallaigh (Chairperson)	Forfás
Mr Seamus Gallen	Enterprise Ireland (National Software Directorate)
Ms Una Halligan	Hewlett Packard / IBEC
Mr Paul Lyons	IBM Ireland Ltd.
Dr Sean McDonagh	Skills Initiative Unit
Mr Brendan O'Sullivan	IDA Ireland
Ms Monica Roche (Secretary)	Forfás
Ms Mary Sweeney	The Association of Graduate Careers Services of Ireland
Ms Beverly Talbot	FÁS
Mr Frank Turpin	Intel Ireland Ltd.

# Prompt Payment of Accounts Act, 1997

Report of the Comptroller and Auditor General Pursuant to Section 13 of the Prompt Payment of Accounts Act, 1997

The Prompt Payment of Accounts Act 1997 (the Act) came into operation on 2 January 1998. Forfás comes under the remit of the Act. The payment practices of Forfás are reported on below for the year ended 31 December 1999 in accordance with section 12 of the Act.

- (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 was one late payment during 1999 which exceeded the due payment date by 28 days. The value of the late payment was £1,348, representing .016% of total payments made by the Agency with associated penalty interest of £10. Aproximately 99.9% of all payment demands were paid within the prescribed timeframe.

There have been no material developments since 1 January 2000.

#### John Travers

Chief Executive Officer 8 May 2000

### Responsibilities of the Agency and of the Comptroller and Auditor General

The Agency is obliged to comply with the Act and, in particular, is required to:

- ▶ pay its suppliers by the appropriate payment date
- ▶ if payment to a supplier is late, include the appropriate penalty interest with the payment together with the information required by Section 6
- disclose its payment practices in the year in the appropriate way.

Under Section 13 of the Act, it is my responsibility, as auditor of Forfás, to report on whether, in all material respects, the Agency has complied with the provisions of the Act.

#### **Basis of Opinion**

My examination included a review of the payment systems and procedures in place and checking, on a test basis, evidence relating to the operation of the Act by the Agency during the year.

I obtained all the information and explanations which I considered necessary for the excercise of my function under Section 13 of the Act.

#### Opinion

As a result of my examination, it is my opinion that the Agency complied in all material respects with the provisions of the Act during the year ended 31 December 1999.

#### John Purcell

Comptroller and Auditor General 24 May 2000

# Financial Statements

### Report of the Comptroller and Auditor General

I have audited the financial statements on pages 54 to 62

#### Responsibilities of Forfás and of the Comptroller and Auditor General

The accounting responsibilities of Forfás are set out in the Statement of Board Members' Responsibilities on page 53. It is my responsibility, under the Industrial Development Act, 1993, to audit the financial statements presented to me by Forfás and to report on them. As the result of my audit I form an independent opinion on the financial statements.

#### **Basis of Audit**

In the exercise of my function as Comptroller and Auditor General, I plan and perform my audit in a way which takes account of 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 judgments made in the preparation of the financial statements, and of whether the accounting policies are appropriate, consistently applied and adequately disclosed.

My audit was conducted in accordance with auditing standards which embrace the standards issued by the Auditing Practices Board and in order to provide sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement whether caused by fraud or other irregularity or error. I obtained all the information and explanations that I required to enable me to fulfil my function as Comptroller and Auditor General and, 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 1999 and of its income and expenditure and cash flow for the year then ended.

#### John Purcell

Comptroller and Auditor General 24 May 2000

### Statement of Board Members' Responsibilities

#### For 1999 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 judgments 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. 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 John Travers

### **Accounting Policies**

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 judgments 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. 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 John Travers

## Income and Expenditure Account

For Year Ended 31 December 1999

	Notes	1999 IR£	1998 IR£
Income			
Oireachtas Grant	1	11,980,000	10,620,000
Professional Fees - National Accreditation Board	2	298,434	240,974
Other	3	687,149	1,142,779
Science & Technology Programmes	4	436,751	516,721
		13,402,334	12,520,474
Expenditure			
Administration and General Expenses	5	8,192,952	7,085,859
Pension Costs	6	4,625,679	4,431,747
Depreciation	7	355,029	369,173
Science & Technology Programmes	4	431,104	524,323
		13,604,764	12,411,102
Net Movement for Year		(202,430)	109,372
Contribution (to) Other Organisations	8	-	(57,000)
Balance at beginning of Year		1,158,956	964,104
Transfer from Capital Account	9	172,308	142,480
Balance at end of Year		1,128,834	1,158,956

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

The Accounting Policies and Notes 1 to 16 form part of these Financial Statements.

On behalf of the Board:

Peter Cassells John Travers

### **Balance Sheet**

#### As at 31 December 1999

	Notes	1999 IR£	1998 IR£
Fixed Assets			
Tangible Fixed Assets	7	454,573	626,881
Total Fixed Assets		454,573	626,881
Current Assets			
Accounts Receivable	10	4,312,559	1,348,941
Bank		24,221	33,453
		4,336,780	1,382,394
Accounts Payable	11	3,207,946	223,438
Net Current Assets		1,128,834	1,158,956
Net Assets		1,583,407	1,785,837
Represented By:			
Capital Account	9	454,573	626,881
Income and Expenditure Account		1,128,834	1,158,956
		1,583,407	1,785,837

The Accounting Policies and Notes 1 to 16 form part of these Financial Statements.

On behalf of the Board:

Peter Cassells John Travers

### Cash Flow Statement

For Year Ended 31 December 1999

Notes	1999 IR£	1998 IR£
Reconciliation of Net Movement for Year to Net Cash Flow from Operations		
Net Movement for Year	(202,430)	109,372
Bank Interest	(6,455)	(11,337)
Depreciation Charge:		
- Tangible Fixed Assets 7	355,029	369,173
(Increase)/Decrease in Accounts Receivable	(2,963,618)	940,484
Increase/(Decrease) in Accounts Payable	2,984,508	(1,229,431)
Net Cash Flow from Operations	167,034	178,261
Cash Flow Statement		
Net Cash Flow from Operations	167,034	178,261
Returns on Investment and Servicing of Finance		
Bank Interest	6,455	11,337
Cash Flow before Capital Expenditure	173,489	189,598
Capital Expenditure		
Sale of Tangible Fixed Assets	2,418	-
Purchase of Tangible Fixed Assets 7	(185,139)	(226,693)
Cash Flow after Capital Expenditure	(9,232)	(37,095)
Contribution to Other Organisations 8	-	(57,000)
(Decrease) in Cash	(9,232)	(94,095)
Reconciliation of Decrease in Cash to Cash at Bank		
Movement in Cash at Bank for the Year	(9,232)	(94,095)
Cash at Bank at 1 January	33,453	127,548
Cash at Bank at 31 December	24,221	33,453

### Notes to the Accounts

For Year Ended 31 December 1999

#### (1) Oireachtas Grant

Oireachtas Grant	11,980,000	10,620,000
Vote 45 - Remuneration & Pensions	-	698,000
Grant for Administration and General Expenses	11,980,000	9,922,000
	1999 IR£	1998 IR£

- (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 IR£1,500,000,000. At 31 December, 1999 the aggregate amount so provided was IR£1,014,566,051.
- (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 IR£125,000,000. At 31 December, 1999 the aggregate amount so provided was IR£10,669,296.

#### (2) Professional Fees - National Accreditation Board

The National Accreditation Board (NAB) is the national body responsible for accreditation 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.

(3) Other Income	1999 IR£	1998 IR£
Rental Income	361,079	311,904
Business Information System Development *	40,679	-
EMU Business Awareness Campaign **	32,539	172,243
Sundry Income	36,397	130,519
Enterprise Ireland ***	210,000	516,776
Bank Interest	6,455	11,337
	687,149	1,142,779

- \* Contribution from Department of Enterprise, Trade & Employment.
- \*\* Contribution from Department of Finance.
- \*\*\* Contribution from Enterprise Ireland. The IR£210,000 received in 1999 funded the cost of the Trade & EU Policy Unit that transferred to Forfás during the year.

For Year Ended 31 December 1999

#### (4) Science & Technology Programmes

These programmes are administered by Forfás, on behalf of the European Union and the Department of Enterprise, Trade and Employment - Office of Science and Technology (OST).

4th Framework Programme	50,137 6	- 50,137
Science & Technology Innovation Awareness Campaign 35	50,000 34	14,353 5,647
ICSTI - Technology Foresight *	26,614 2	26,614 -
Programme	Income Expe	enditure Out-turn

<sup>\*</sup> Contribution received from the OST in respect of a jointly funded programme which amounted to IR£54,432 in 1999.

The balance of the programme has been charged to Administration and General Expenses in the Income and Expenditure Account.

(5) Administration and General Expenses     1999 IRE     1998 IRE       Board Members Remuneration and Expenses     147,609     151,714       Pay Costs     3,807,147     3,502,874       Other Personnel Costs     262,636     238,495       Travelling Expenses     268,814     280,310       Specialised and Professional Services     458,422     410,165       Consultancy and Studies     699,068     422,288       Rents, Rates, Repairs and Maintenance     901,642     821,977       Other Operating Expenses     1,138,309     890,225       EMU Business Awareness Campaign     503,305     361,811       Audit Fee     6,000     6,000       Pay Costs comprise:       Wages and Salaries     3,568,825     3,281,449       Social Welfare Costs     137,826     119,906       Superannuation Costs     100,496     101,519		3,807,147	3,502,874
1999   1998   1998   1898	Superannuation Costs	100,496	101,519
1999   1998   1998   1898	Social Welfare Costs	137,826	119,906
Board Members Remuneration and Expenses 147,609 151,714 Pay Costs 3,807,147 3,502,874 Other Personnel Costs 262,636 238,495 Travelling Expenses 268,814 280,310 Specialised and Professional Services 458,422 410,165 Consultancy and Studies 699,068 422,288 Rents, Rates, Repairs and Maintenance 901,642 821,977 Other Operating Expenses 1,138,309 890,225 EMU Business Awareness Campaign 503,305 361,811 Audit Fee 6,000 6,000	Wages and Salaries	3,568,825	3,281,449
1999   1998   1998   186   1	Pay Costs comprise:		
1999   1998   1898   186   1		8,192,952	7,085,859
1999   1998   1998   1822   1822   1823   1824   1825	Audit Fee	6,000	6,000
1999   1998   1826	EMU Business Awareness Campaign	503,305	361,811
1999   1998   1998   18£   18£   18£   18£   18£   18£   185   1	Other Operating Expenses	1,138,309	890,225
1999   1998   1998   18£   18£   18£   18£   18£   18£   185   1	Rents, Rates, Repairs and Maintenance	901,642	821,977
1999   1998   18£   18E   18	Consultancy and Studies	699,068	422,288
1999   1998   18£   18£   18£   18£   18£   185   18	Specialised and Professional Services	458,422	410,165
1999   1998   18£   18£   18£   18£   18£   185   18	Travelling Expenses	268,814	280,310
Board Members Remuneration and Expenses 147,609 151,714	Other Personnel Costs	262,636	238,495
1999 1998 IR£ IR£	Pay Costs	3,807,147	3,502,874
1999 1998	Board Members Remuneration and Expenses	147,609	151,714
	(3) Administration and General Expenses		

For Year Ended 31 December 1999

#### (6) Superannuation

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	Туре
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 FAS/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 Coun	cil 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.

Forfás meets the full costs arising under the unfunded Schemes.

Apart from the former Irish Goods Council Scheme each of the Schemes includes Spouses and Childrens Schemes.

For Year Ended 31 December 1999

#### (7) Tangible Fixed Assets

	Computer Equipment IR£	Motor Vehicle IR£	Fixtures & Fittings IR£	Total IR£
COST				
At 1 January 1999	572,152	26,440	3,729,960	4,328,552
Additions	146,348	-	38,791	185,139
Disposals	(26,156)	-	(48,927)	(75,083)
At 31 December 1999	692,344	26,440	3,719,824	4,438,608
DEPRECIATION				
At 1 January 1999	412,221	13,220	3,276,230	3,701,671
Charge for Year	150,209	6,610	198,210	355,029
Disposals	(26,156)	-	(46,509)	(72,665)
At 31 December 1999	536,274	19,830	3,427,931	3,984,035
NET BOOK AMOUNT				
At 1 January 1999	159,931	13,220	453,730	626,881
Net Movement for Year	(3,861)	(6,610)	(161,837)	(172,308)
At 31 December 1999	156,070	6,610	291,893	454,573

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 Vehicle 4 years(iii) Fixtures & Fittings 5 years

#### (8) Contribution to Other Organisations

 1999
 1998

 IR£
 IR£

 Enterprise Ireland
 (57,000)

#### (9) Capital Account

At 1 January 1999

Net Movement on:

- Tangible Fixed Assets / Transfer to Income and Expenditure Account

At 31 December 1999

626,881

(172,308)

IR£

For Year Ended 31 December 1999

(10) Accounts Receivable	1999 IR£	1998 IR£
General Debtors and Prepayments	3,844,518	1,318,123
Inter Agency Balances	468,041	30,818
	4,312,559	1,348,941

General Debtors & Prepayments includes IR£2,515,771 VAT recoverable by Forfás on behalf on the Forfás VAT Group (Forfás, IDA Ireland & Enterprise Ireland).

(11) Accounts Payable		
	1999 IR£	1998 IR£
General Creditors and Accruals	3,194,819	177,840
Inter Agency Balances	13,127	45,598
	3,207,946	223,438

General Creditors & Accruals includes IR£2,510,521 payable, on recovery of VAT, to members of the Forfás VAT Group (IDA Ireland & Enterprise Ireland).

#### (12) Commitments under Operating Leases

A net total of IR£491,793 (1998 IR£533,694) has been charged in respect of operating leases on buildings in the accounts of Forfás. Forfás has commitments of IR£4,436,143 to pay during 2000 in respect of leases expiring as follows:

(i)	2000	48,000
(ii)	2001 - 2004	60,143
(iii)	2005 Onwards	4,328,000

Costs arising out of these commitments in 2000 will be shared between Forfás and its Agencies in proportion to office space occupied. The Forfás share of these costs in 2000 is anticipated to be approximately IR£920,000.

#### (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.

#### (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 18th April, 2000.

# Financial Statements (Euro)

The following pages present Forfás' Financial Statements for 1999 expressed in euro. They are provided for information purposes.

### **Accounting Policies**

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

Forfás, the policy advisory and coordinating 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.

#### **Basis of Accounting**

The Financial Statements are prepared under the historical cost convention. The significant accounting policies adopted are as follows:-

#### (a) Oireachtas Grant

This is accounted for on a cash receipts basis.

#### (b) 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.

#### (c) 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.

#### (d) Foreign Currencies

Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rates ruling at the Balance Sheet date. Revenues and costs are translated at the exchange rates ruling at the dates of the underlying transactions.

#### (e) Pension Costs

These costs are accounted for as they fall due.

#### (f) Science and Technology Programmes

These are accounted for on an accruals basis.

#### (g) Operating Leases

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

## Income and Expenditure Account

For Year Ended 31 December 1999

	Notes	<b>1999</b> €	<b>1998</b> €
Income			
Oireachtas Grant	1	15,211,462	13,484,618
Professional Fees - National Accreditation Board	2	378,935	305,974
Other	3	872,499	1,451,030
Science & Technology Programmes	4	554,559	656,100
		17,017,455	15,897,722
Expenditure			
Administration and General Expenses	5	10,402,903	8,997,185
Pension Costs	6	5,873,401	5,627,158
Depreciation	7	450,794	468,753
Science & Technology Programmes	4	547,389	665,752
		17,274,487	15,758,848
Net Movement for Year		(257,032)	138,874
Contribution (to) Other Organisations	8	-	(72,375)
Balance at beginning of Year		1,471,571	1,224,159
Transfer from Capital Account	9	218,785	180,913
Balance at end of Year		1,433,324	1,471,571

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

The Accounting Policies and Notes 1 to 16 form part of these Financial Statements.

On behalf of the Board:

Peter Cassells John Travers

### **Balance Sheet**

#### As at 31 December 1999

	Notes	1999	1998
	Notes	€	€
Fixed Assets			
Tangible Fixed Assets	7	577,189	795,974
Total Fixed Assets		577,189	795,974
Current Assets			
Accounts Receivable	10	5,475,821	1,712,802
Bank		30,754	42,477
		5,506,575	1,755,279
Accounts Payable	11	4,073,251	283,708
Net Current Assets		1,433,324	1,471,571
Net Assets		2,010,513	2,267,545
Represented By:			
Capital Account	9	577,189	795,974
Income and Expenditure Account		1,433,324	1,471,571
		2,010,513	2,267,545

The Accounting Policies and Notes 1 to 16 form part of these Financial Statements.

On behalf of the Board:

Peter Cassells John Travers

### Cash Flow Statement

For Year Ended 31 December 1999

	Notes	<b>1999</b> €	<b>1998</b> €
Reconciliation of Net Movement for Year to Net Cash Flow from Operations	ar		
Net Movement for Year		(257,032)	138,874
Bank Interest		(8,196)	(14,395)
Depreciation Charge:			
- Tangible Fixed Assets	7	450,794	468,753
(Increase)/Decrease in Accounts Receivable		(3,763,019)	1,194,168
Increase/(Decrease) in Accounts Payable		3,789,543	(1,561,055)
Net Cash Flow from Operations		212,090	226,345
			_
Cash Flow Statement			
Net Cash Flow from Operations		212,090	226,345
Returns on Investment and Servicing of Fin	ance		
Bank Interest		8,196	14,395
Cash Flow before Capital Expenditure		220,286	240,740
Capital Expenditure			
Sale of Tangible Fixed Assets		3,070	_
Purchase of Tangible Fixed Assets	7	(235,079)	(287,840)
Cash Flow after Capital Expenditure		(11,723)	(47,100)
Contribution to Other Organisations	8	-	(72,375)
(Decrease) in Cash		(11,723)	(119,475)
Reconciliation of Decrease in Cash to Cash a	at Bank		
Movement in Cash at Bank for the Year		(11,723)	(119,475)
Cash at Bank at 1 January		42,477	161,952
Cash at Bank at 31 December		30,754	42,477

### Notes to the Accounts

For Year Ended 31 December 1999

#### (1) Oireachtas Grant

	<b>1999</b> €	<b>1998</b> €
Grant for Administration and General Expenses	15,211,462	12,598,341
Vote 45 - Remuneration & Pensions	-	886,277
Oireachtas Grant	15,211,462	13,484,618

- (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, 1999 the aggregate amount so provided was €1,288,233,148.
- (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, 1999 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 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.

(3) Other Income	<b>1999</b> €	<b>1998</b> €
Rental Income	458,476	396,036
Business Information System Development *	51,651	-
EMU Business Awareness Campaign **	41,316	218,704
Sundry Income	46,215	165,725
Enterprise Ireland ***	266,645	656,170
Bank Interest	8,196	14,395
	872,499	1,451,030

- \* Contribution from Department of Enterprise, Trade & Employment.
- \*\* Contribution from Department of Finance.
- \*\*\* Contribution from Enterprise Ireland. The €266,645 received in 1999 funded the cost of the Trade & EU Policy Unit that transferred to Forfás during the year.

For Year Ended 31 December 1999

#### (4) Science & Technology Programmes

These programmes are administered by Forfás, on behalf of the European Union and the Department of Enterprise, Trade and Employment - Office of Science and Technology (OST).

Programme	Income €	Expenditure €	Out-turn €
ICSTI - Technology Foresight *	33,793	33,793	-
Science & Technology Innovation Awareness Campaign	444,408	437,238	7,170
4th Framework Programme	76,358	76,358	-
Total	554,559	547,389	7,170

<sup>\*</sup>Contribution received from the OST in respect of a jointly funded programme which amounted to €69,114 in 1999. The balance of the programme has been charged to Administration and General Expenses in the Income and Expenditure Account.

(5) Administration and General Expenses	1999	1998
	€	€
Board Members Remuneration and Expenses	187,425	192,637
Pay Costs	4,834,081	4,447,733
Other Personnel Costs	333,478	302,826
Travelling Expenses	341,323	355,920
Specialised and Professional Services	582,076	520,802
Consultancy and Studies	887,633	536,195
Rents, Rates, Repairs and Maintenance	1,144,849	1,043,696
Other Operating Expenses	1,445,355	1,130,353
EMU Business Awareness Campaign	639,065	459,405
Audit Fee	7,618	7,618
	10,402,903	8,997,185
Pay Costs comprise:		
Wages and Salaries	4,531,474	4,166,581
Social Welfare Costs	175,003	152,249
Superannuation Costs	127,604	128,903
	4,834,081	4,447,733

For Year Ended 31 December 1999

#### (6) Superannuation

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	Туре
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	Contributory, Defined Benefit, Unfunded. A small number of those in category
	pensionable after that date,	(b) are included on a non contributory basis.
	(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 FAS/AnCO Schemes.	
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.
	·	

Forfás meets the full costs arising under the unfunded Schemes.

Apart from the former Irish Goods Council Scheme each of the Schemes includes Spouses and Childrens Schemes.

For Year Ended 31 December 1999

#### (7) Tangible Fixed Assets

	Computer Equipment €	Motor Vehicle €	Fixtures & Fittings €	Total €
COST	•			
At 1 January 1999	726,483	33,572	4,736,072	5,496,127
Additions	185,824	-	49,255	235,079
Disposals	(33,212)	-	(62,124)	(95,336)
At 31 December 1999	879,095	33,572	4,723,203	5,635,870
DEPRECIATION				
At 1 January 1999	523,413	16,786	4,159,954	4,700,153
Charge for Year	190,726	8,393	251,675	450,794
Disposals	(33,212)	-	(59,054)	(92,266)
At 31 December 1999	680,927	25,179	4,352,575	5,058,681
NET BOOK AMOUNT				
At 1 January 1999	203,070	16,786	576,118	795,974
Net Movement for Year	(4,902)	(8,393)	(205,490)	(218,785)
At 31 December 1999	198,168	8,393	370,628	577,189

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 Vehicle 4 years

(ii) Motor Vehicle 4 years(iii) Fixtures & Fittings 5 years

(8) Contribution to Other Organisations

1999

€

Enterprise Ireland – (72,375)

#### (9) Capital Account

At 1 January 1999 795,974

Net Movement on:

- Tangible Fixed Assets / Transfer to Income and Expenditure Account (218,785)

At 31 December 1999 577,189

1998

For Year Ended 31 December 1999

(10) Accounts Receivable	<b>1999</b> €	<b>1998</b> €
General Debtors and Prepayments	4,881,531	1,673,671
Inter Agency Balances	594,290	39,131
	5.475.821	1.712.802

General Debtors & Prepayments includes €3,194,370 VAT recoverable by Forfás on behalf on the Forfás VAT Group (Forfás, IDA Ireland & Enterprise Ireland).

(11) Accounts Payable		
	<b>1999</b> €	<b>1998</b> €
General Creditors and Accruals	4,056,583	225,810
Inter Agency Balances	16,668	57,898
	4,073,251	283,708

General Creditors & Accruals includes €3,187,704 payable, on recovery of VAT, to members of the Forfás VAT Group (IDA Ireland & Enterprise Ireland).

#### (12) Commitments under Operating Leases

A net total of €624,448 (1998 €677,652) has been charged in respect of operating leases on buildings in the accounts of Forfás. Forfás has commitments of €5,632,739 to pay during 2000 in respect of leases expiring as follows:

(i)	2000	60,947
(ii)	2001 - 2004	76,366
(iii)	2005 Onwards	5,495,426

Costs arising out of these commitments in 2000 will be shared between Forfás and its Agencies in proportion to office space occupied. The Forfás share of these costs in 2000 is anticipated to be approximately €1,168,159.

#### (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.

#### (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 18th April, 2000.



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