

State Expenditure on Science & Technology 2005 and 2006

Appendix 4: Government Departments and agencies' programmes

Contents

DEPARTMENT OF AGRICULTURE AND FOOD	3
Teagasc	5
<hr/>	
DEPARTMENT OF ENTERPRISE, TRADE AND EMPLOYMENT	7
Forfás	9
Enterprise Ireland	11
IDA Ireland	14
Shannon Development Company Limited	15
FÁS	17
Science Foundation Ireland	18
National Microelectronic Applications Centre	21
<hr/>	
DEPARTMENT OF THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT	22
Environmental Protection Agency	23
Radiological Protection Institute of Ireland	25
Met Éireann	26
<hr/>	
DEPARTMENT OF SOCIAL AND FAMILY AFFAIRS	28
<hr/>	
DEPARTMENT OF TRANSPORT	30
National Roads Authority	30
<hr/>	
DEPARTMENT OF COMMUNITY, RURAL AND GAELTACHT AFFAIRS	32
Údarás na Gaeltachta	32

DEPARTMENT OF EDUCATION AND SCIENCE	33
Higher Education Authority	36
Dublin Institute of Advanced Studies	38
IRCHSS	39
IRCSET	40
<hr/>	
DEPARTMENT OF COMMUNICATIONS, MARINE AND NATURAL RESOURCES	42
Marine Institute	44
BIM	46
Central and Regional Fisheries Boards	48
COFORD	49
Sustainable Energy Ireland	50
<hr/>	
DEPARTMENT OF HEALTH AND CHILDREN	53
Health Research Board	55
Postgraduate Medical and Dental Board	57
Food Safety Authority Ireland	58
<hr/>	
DEPARTMENT OF ARTS, SPORT AND TOURISM	60
Natural History Museum	60
<hr/>	
DEPARTMENT OF THE TAOISEACH	61
National Economic and Social Council	61
<hr/>	
DEPARTMENT OF FINANCE	62
Economic and Social Research Institute	62
<hr/>	
OFFICES	
Central Statistics Office	64
Central Bank	65
Office of Public Works	66
State Laboratory	67
Ordnance Survey Ireland	70

Department of Agriculture and Food

The Department of Agriculture and Food (DAF) is concerned with the development of the agriculture and food industries, through administration of public services in connection with promotion of farm improvement; participation in international agricultural activities, including administration of EU schemes and UN agency activities.

The Department is responsible for the operation of land policy. The Department operates a number of testing centres and laboratories, in the areas of, veterinary diagnostics and research; meat control; seed testing; plant variety testing; cattle performance testing; pesticide control and dairy products control. State-sponsored bodies which come under the statutory responsibility of the Minister for Agriculture and Food include, Teagasc (The Agriculture and Food Development Authority) and An Bord Bia.

The main national aims are to improve quality and productivity and to encourage better market orientation in farming, through training, research and advice. These aims are reflected in the following areas:

RESEARCH AND DEVELOPMENT

Improvement of Crops

2,776

2,859

Improving the quality of crops and crop products through the use of the highest quality varieties and seeds. The main activities leading to achievement of this objective include the operation of two stations/farms at Fermoy in Co. Cork and Backweston in Co. Dublin, where plant varieties are evaluated, the operation of a potato laboratory at Raphoe in Co. Donegal and the carrying out of trials in farmers' fields throughout the country.

Receipts amounting to approx. €12,000 were received in respect of R&D type activities by the crops improvement service in 2005.

R&D-Related Veterinary and Meat Laboratory Activities

5,337

5,497

Operation of a Central Veterinary Research Laboratory at Abbotstown, Co. Dublin (transferred to Backweston, Co. Kildare during 2005), Regional Veterinary Research Laboratories at Cork, Limerick, Sligo, Athlone and a testing laboratory in Waterford.

Institutional Food Research

5,586

5,471

In its implementation of the Food Institutional Research Measure of the RTDI component of the Productive Sector OP under the National Development Plan 2000 – 2006, the Department is involved in the management of competitive tendering by food research institutions for grant aid to support food research in priority areas. It monitors the progress of successful projects, payment of grant aid and evaluation of the programme. Expenditure on this programme is expected to rise in 2006 due to additional calls for funding.

	€'000	
	2005	2006
<p>Agricultural Production Research</p> <p>This is the "Research Stimulus Fund" measure of the Productive Sector OP of the NDP 2000-2006 which encourages co-operative research in agricultural production. This involves management of competitive tendering by research institutions for grant aid to support agricultural research projects in priority areas, monitoring of progress of successful projects, payments of grant aid and evaluation of the programme. The increase for 2006 stems from on-going financing of existing funded projects and an anticipated new "Calls".</p>	1,445	1,333
<p>Improvement of Livestock</p> <p>Improving the quality of livestock and livestock products through adoption of better breeding and selection practices.</p> <p>The main activities leading to achievement of these objectives are operation of on-farm and central testing stations; recording schemes; collaboration with and support for research in animal breeding at research institutions and at the Irish Equine Centre, Co. Kildare which undertakes R&D activities relating to equines.</p>	969	1,000
<p>Genetic Resources in Plants and Animals</p> <p>Operation of an Advisory Committee on Genetic Resources for use in agriculture including making recommendations regarding the selection of research projects for the award of grant aid.</p>	130	135
<p>US-Ireland Co-operation Programme in Agricultural Research</p> <p>This component of the Department's expenditure relates to Irish side grant aid to researchers – mainly from Teagasc and UCD – who are participating in the US-Ireland Programme of Co-operation in Agricultural Research. This bi-lateral programme provides opportunities for agricultural researchers from the US and Ireland, working in the same research area, to achieve greater progress through sharing their knowledge by spending a period of time working in each others institutions.</p>	48	50
<p>Forestry</p> <p>In 2005 R&D type work relating to forestry was funded at the Wood Technology Centre, University of Limerick. Other R&D work on forestry is undertaken by COFORD who make a separate return.</p>	70	65
TRAINING, EDUCATION AND INFORMATION	1,024	1,055
TECHNICAL SERVICES	49,967	51,466
OTHER SCIENCE AND TECHNOLOGY ACTIVITIES	1,503	1,548

Teagasc

Teagasc (the Agriculture and Food Development Authority) is the national body providing advisory, research, education and training services to the agriculture and food industry. It was established under the Agriculture (Research, Training and Advice) Act, 1988.

The organisation's mission is: "To provide an independent and authoritative research knowledge base, technology transfer and training services for the sustainable development of agriculture and the food processing industry to enable it to respond profitably to consumer demands and requirements and contribute to a vibrant rural economy and society".

In pursuing this mission, Teagasc focuses on:

- ▶ Developing the information and new technology required to underpin competitiveness and innovation in sustainable agricultural production and the food processing sector.
- ▶ Analysing and projecting the impact of policies for the agri-food sector.
- ▶ Developing and maintaining a strong human resource capacity across the agri-food sector.
- ▶ Providing a sound scientific basis for decision-makers in protecting the integrity of the food chain, protecting the rural environment and addressing the concerns of the consumer.
- ▶ Developing a capacity in molecular biology with a view to increasing its application in the agri-food industry.

RESEARCH AND DEVELOPMENT

Sustainable agriculture and rural development

40,177

35,992

The European Union, in Agenda 2000, stressed the importance of improving the competitiveness of the broader European agriculture and agri-food sectors in the context of trade liberalisation and an expected growth in world food demand. The Commission's proposals for the mid-term review of the CAP argued that "agricultural production must be more orientated to the products and services that the public wants and not to artificially created price incentives or product-specific aids. Direct income payments should not steer the production decisions of farmers." The current Doha round of agricultural trade negotiations under the auspices of the WTO also have as their long-term objective, referred to in the agreement on agriculture, to establish a fair and market-oriented trading system through a programme of fundamental reform.

Food processing

15,722

14,115

The Food Programme is directed towards developing the base of expertise and information in generic technologies to assist the Irish food industry to achieve consistent quality and guaranteed safety, allied to product and process innovations. The programme covers the full spectrum of the innovatory process, ranging from market studies through strategic research to technology development services and training programmes.

Technical Services

3,300

3,222

The objective of this programme is to provide a range of services that facilitate, promote and service the requirements of the agri-food industries. The specific objective of providing technical service to the food industry is to raise the innovative capacity of the industry and support the development of small and medium scale food enterprises. The provision of services is based on the premise that these are areas where Teagasc research is in a unique position to provide information necessary for the development of the agri-food industries.

In agriculture, services are provided in the following areas:

- ▶ Analytical/diagnostic services such as the nematology service to the Department of Agriculture & Food; analysis of silage, meals, water, compost, soils and plants; diagnosis of animal and other diseases;
- ▶ Consultancy services to Irish and EU agencies in areas such as land resource management, equipment development and policy analysis;
- ▶ The national farm survey.

Based on the strategic research capability outlined already, and associated expertise in product and process innovation, Teagasc provides technology development services for food companies and especially, small and medium scale enterprises, in the following areas;

- ▶ Consultancy and contract research in product development and product/process improvement;
- ▶ Pilot plant facilities for R&D and small-scale manufacturing;
- ▶ Assistance with registration for ISO and installation of quality management schemes;
- ▶ Assistance with market investigations, market trends and analysis of market opportunities for food.

TRAINING, EDUCATION AND INFORMATION

1,941

1892

Technology Transfer

47,884

45,950

Teagasc provides professional advice to farmer clients at enterprise level dealing with dairying; cattle; tillage crops; horticulture; financial management; agri-tourism; farm modernization; environmental conservation/control of farm pollution, winter feed quality and overall farm management.

Programme support includes the provision of specialist training to advisers to enable them to keep abreast of S&T developments. Through its nationwide network of over 100 offices and 230 advisers, Teagasc maintains contact with 90,000 Irish farmers. It provides advisory services under contract to 34,450 of the more progressive of these farmers.

Department of Enterprise, Trade and Employment

The Minister for Enterprise, Trade and Employment, Mr. Micheál Martin, T.D. holds extensive functions, powers and responsibilities for the management and promotion of scientific research and development in Ireland.

The Mission Statement of the Department is:

- ▶ We will work for Government and the people to equitably grow Ireland's competitiveness and quality employment.

The main goals of the Department include:

- ▶ We will prioritise investment in science, technology and innovation and the development of the knowledge society.

The Department has responsibility for a number of State sponsored bodies entrusted with either the implementation or formulation of policy programmes. Enterprise Ireland (EI); Science Foundation Ireland (SFI); IDA Ireland; Forfás; Shannon Development and the Patents Office. It also provides an annual subvention to the Tyndall National Institute (formerly the National Microelectronics Research Centre).

The Department's activities are financed through a general vote of the Oireachtas. The Department directly employs 17 staff in S&T activities, located in the Office of Science and Technology (OST), which is part of the Science, Technology and Intellectual Property Division.

OST is responsible for advising the Minister on general S&T activities and the programmes of the agencies funded by the Department. These programmes are set out in the industry measure of the RTDI priority component of the Productive Sector OP. An amount of €99.83m was allocated for sub-measures within this industry measure in 2005. In addition an amount of approximately €2.78m was allocated for certain other activities (science awareness, evaluation of science measures and the Irish Council for Bioethics) which are outside the National Development Plan (NDP).

Arising from Ireland's first ever Technology Foresight study, Science Foundation Ireland (SFI) was established in 2000 initially as a sub committee of Forfás and, from July 2003, on a statutory basis under the Industrial Development (Science Foundation Ireland) Act, 2003. It's long-term objective is to create a highly visible critical mass of world-class research excellence in the strategic areas relevant to economic development, particularly Biotechnology (BioT) and Information and Communications Technologies (ICTs).

In addition, OST is responsible for the funding of and is represented on the policy formulation committees of the following five Inter-Governmental S&T Organisations (European Space Agency (ESA); European Molecular Biology Conference (EMBC); Co-operation in Science and Technology Programmes (COST); EUREKA and EMBL (European Molecular Biology Laboratory). €12.28m was provided for in 2005 in respect of Ireland's membership of these organisations.

Subscriptions To International Organisations

National contributions to, and participation in: European Space Agency (ESA); European Molecular Biology Conference (EMBC) ; Co-operation in Science and Technology Programmes (COST) ; EUREKA and EMBL (European Molecular Biology Laboratory).

The breakdown of spending among programmes is shown in the following tables:

Other Science and Technology activities

ESA

11,523

12,975

The main objective of membership of the ESA is to stimulate high technology industry in Ireland. The greater part of Ireland's contribution is returned as industrial contracts involving collaboration between enterprises in the Member States.

EMBC

115

123

The objective of the EMBC involvement is to secure fellowships that enable biologists to work abroad, thus widening their experience and links. Over the past 6 years Ireland has received fellowships the value of which exceed the membership costs.

COST

3

3

European cooperation in the field of scientific and technical research - is based on an inter-governmental framework between 35 countries for research cooperation of nationally funded research activities in the field of scientific and technical research.

EUREKA

27

33

Eureka is a European research initiative designed to ensure that the technological gap with other countries is narrowed. It promotes joint research between firms in different countries.

EMBL

610

617

EMBL is an inter-governmental research organisation whose mission is the development of molecular biology throughout Europe. Membership of EMBL complements Ireland's significant investment in the biotechnology area by presenting opportunities for research training, networking and enhanced international collaborations

Evaluation, Awareness & Innovation Lecture

2,503

4,219

Bioethics Council

255

320

CHIU

25

40

Forfás

FUNCTIONS OF FORFÁS

Forfás is the national board responsible for providing policy advice to government on enterprise, trade, science, technology and innovation in Ireland.

Legal responsibility for the promotion and development of these sectors is vested by the State, through the Department of Enterprise, Trade and Employment, in Forfás. The board fulfils its mandate either directly or by delegating responsibility to associated agencies with which it has a close working relationship.

Among the functions of Forfás are:

- ▶ Industrial policy development and co-ordination for State bodies such as IDA Ireland and Enterprise Ireland.
- ▶ The promotion of scientific research and innovation in close association with Science Foundation Ireland and the Irish Council for Science, Technology and Innovation.
- ▶ Research, analysis and policy advice on competitiveness and economic development, through the National Competitiveness Council and the Expert Group on Future Skills Needs.

TRAINING, EDUCATION AND INFORMATION

2,507

2,417

Science & Technology Division

The mission of Forfás in science and technology is to enhance Ireland's performance in science, technology and innovation and thereby contribute to economic and social development.

The activities undertaken by the S&T Division cover six main areas:

- ▶ Delivering timely and well-founded policy analysis and advice on science, technology and innovation issues to national policy-makers.
- ▶ Undertaking evaluations of existing S&T policies and programmes, in order to improve their performance and relevance to economic development.
- ▶ Providing data, indicators and a flow of other information on science, technology and innovation to policy-makers, decision-takers and interested groups in the public and private sectors.
- ▶ Providing secretariat and research support for the Advisory Council for Science, Technology and Innovation (ACSTI).
- ▶ Advising and providing support to the Office of Science and Technology on international science and technology programmes and issues.
- ▶ Discover Science & Engineering Programme - its overall objectives are to increase the numbers of students studying the physical sciences, promote a positive attitude to careers in science, engineering and technology and to foster a greater understanding of science and its value to Irish society.

TECHNICAL SERVICES

893

880

The Irish National Accreditation Board

The Irish National Accreditation Board (INAB) is the 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.

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

Enterprise Ireland

Enterprise Ireland is the national organisation responsible for bringing together innovation, business development and internationalisation for Irish industry. These activities form a vital part of the national innovation system. Enterprise Ireland delivers on this mission by commercialising research and enhancing the technological capability of industry in Ireland.

Some elements of Enterprise Ireland's science and technology programmes were supported by the European Regional Development Fund and the European Social Fund under the various sub-programmes in the National Development Plan 2000-2006. Enterprise Ireland manages many elements of the science and technology sub-programme on behalf of the Office of Science and Technology in the Department of Enterprise, Trade and Employment.

RESEARCH AND DEVELOPMENT

RTI Competitive Grant Scheme

14,388

15,800

Enterprise Ireland (EI) manages the RTI Scheme on behalf of the Office of Science & Technology. It funds in-company R&D projects on product and process development. The scheme is available to client companies of EI, IDA Ireland, Shannon Development and Údarás na Gaeltachta.

(Note – Figures shown here are EI ONLY)

R&D Initiatives (R&D Capability)

14,653

17,000

EI provides assistance for significant investment in R&D facilities which arise as part of a company's strategic development.

Innovation Partnerships (under RTDI Collaboration)

2,920

5,000

These are aimed at harnessing the strengths of the third level sector to work in partnership with companies on specific R&D projects.

Applied Research Enhancements (under RTDI Collaboration)

1,934

2,000

EI provides funding for the establishment of applied research centres in Institutes of Technology, aimed at building sufficient scale to allow them to make an impact on industry in their locality through collaboration.

Industry Led Networks (under RTDI Collaboration)

1,535

996

These are aimed at providing support for research in areas defined by networks of companies in specific industry sectors. The work is overseen by an industry board and EI works to create real collaboration between companies and the researchers to ensure the transfer of technology.

	€'000	
	2005	2006
Basic Research Grants (RTDI capital expenditure)	2,871	2,500
Funding represents EI's expiring commitments (now managed by SFI and IRCSET).		
International Collaboration (by colleges)	576	520
Supports academic researchers to engage in international collaborations and to access international best practice (in terms of research and facilities).		
TECHNOLOGY TRANSFER		
Competency Centres (under RTDI Collaboration)	2,587	2,620
EI supports the establishment and maintenance of centres aimed at developing close interactions with companies with the intention of transferring knowledge and skills about technologies of direct relevance to their business.		
Commercialisation Fund (under RTDI Collaboration)	17,471	16,900
This area supports academic researchers to take the outputs of research with commercial potential and bring it to a point where it can be transferred into industry. There are 3 phases, giving a structured and coherent approach to support. These involve, proof of concept, technology development and commercialisation plus. Particular emphasis is being given to the final stages of support to ensure that transfer actually takes place to the benefit of the receiving company.		
Networking Initiatives	640	450
A key aspect of the transfer of knowledge from the research system to the productive sector is the maximising of scale in research.		
Technology Transfer	724	850
Complementing EI's domestic work to maximise technology transfer between researchers and companies in Ireland. Specialist EI personnel trawl the international scene for opportunities and work with companies in Ireland to broker agreements (either inward or outward).		
Incubator (RTDI Infrastructure)	11,483	11,000
Through its incubation construction programme, EI invests in on-campus space for start-up companies, including specialised biotech facilities (Wet Labs).		

IPR Fund

This area provides support to 3rd level institutions and industrial concerns to assist with the protection and management of patents. Funding is provided for stages of a patent programme up to full specification. In the academic context, it is part of a coherent package of supports (along with the commercialisation fund) to ensure the best possible level of technology transfer from research. In the industrial context, funding is given towards the cost of patent protection.

1,153

1,200

TRAINING, EDUCATION AND INFORMATION**Innovation Management**

EI facilitates training for companies on R&D techniques, with courses across Ireland that range from introductory through to more advanced targeted tuition.

1,023

2,000

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES**Programme Management**

This area supports a central resource in EI to manage and facilitate the transfer of technology from the research environment into business and also covers the costs associated with a significantly enhanced R&D promotional campaign.

11,497

14,816

IDA Ireland

IDA Ireland has national responsibility for securing new investment from overseas in manufacturing and international services and for encouraging existing foreign enterprises to expand their businesses. (The attraction of overseas investment to the Shannon Free Zone and the Gaeltacht areas are the responsibility of Shannon Development and Údarás na Gaeltachta respectively). With a staff of c.280 people and headquarters in Dublin, IDA Ireland has 13 overseas offices as well as a director and staff in each region in Ireland.

Its activities include the international and national promotion of Ireland as a location for overseas investment and the provision of financial incentives (including grant-aid) for the attraction of new overseas investment into Ireland as well as the expansion of its existing client base of over 1,000 companies. As part of its brief to develop overseas companies already in Ireland, IDA Ireland focuses on encouraging these companies to locate additional or higher order functions in Ireland, e.g. a research and development unit.

IDA Ireland's current policy emphasises the need to assist existing clients to move up the value chain. The objective is to ensure that its client companies are focused on activities for which Ireland is a cost-effective location and thus help to secure their competitiveness and strategic importance within the overall company. To achieve this, IDA Ireland introduced new incentive schemes in 2000, including a R&D capability grant scheme.

RESEARCH AND DEVELOPMENT

R&D schemes are directed at existing overseas companies in Ireland. Any grant assistance is subject to a maximum of 35% of eligible costs in the Objective 1 Area and 30% of eligible costs in the Objective 1 in Transition Area.

R&D Capability Grant

8,349 16,500

R&D Capability Grant assistance is provided to support the establishment of a new R&D function or the substantial up-grading of an existing R&D unit. Assistance is available towards capital expenditure and personnel costs. All eligible costs must comply with criteria laid down by Irish legislation and EU State Aid Guidelines.

Research Technological Development & Innovation (RTDI)

4,310 4,500

RTDI grant assistance is particularly directed at established companies which are planning to undertake their first R&D projects and those which are significantly developing their existing R&D activity. The maximum amount of grant for any application cannot exceed €444,400. The RTDI scheme is competition based. In total, 50 companies undertook to invest in R&D activities in their Irish operations during 2004 and IDA committed over €90 million in grant assistance to these projects.

Shannon Development Company Limited

Shannon Free Airport Development Company was incorporated under the Companies Acts in 1959. The Shannon Free Airport Development Company Act 1959 and several amendment Acts govern the activities of Shannon Development and provide for State equity (from the Minister for Finance), and grants, for specific functions from the Ministers for Enterprise, Trade and Employment; Arts, Sport and Tourism; Public Enterprise; and Agriculture and Food in relation to Limerick, Clare, Tipperary (North Riding), South-West Offaly and North Kerry.

Specifically in relation to its industrial role, Shannon Development's responsibilities include:

- ▶ Developing and strengthening the indigenous industry sector in the Shannon region, which includes building up a venture capital culture and creating awareness of the benefits accruing from the Information Society.
- ▶ Developing the Shannon Free Zone as a location for international investment in manufacturing and internationally-traded services.
- ▶ Managing and developing the National Technology Park Limerick and a new network of technology locations in the Shannon region, collectively known as 'Shannon development knowledge network'. Each location within this network has an 'innovation works' facility – 'smart' buildings focused on the development of high-potential, technology-driven start-ups, thereby bringing business to life.
- ▶ Providing and managing industrial buildings and estates.
- ▶ Providing grants and other financial facilities for new and existing manufacturing and internationally traded services companies.

RESEARCH AND DEVELOPMENT

3,722

4,010

Product and process R&D

Grants of up to 35% of eligible expenditure are available to firms in the Mid-West region carrying out product and process development projects. All R&D grants paid by Shannon Development are funded by Exchequer allocation via Enterprise Ireland and from funds made available under the Research Technology and Innovation Initiatives. In 2005 €2,500,000 (for specific measures) and €368,000 (for general grants) were received from the Department of Enterprise Trade & Employment for this programme and €56,000 was received from Enterprise Ireland. It is estimated that €3,610,000 will be received in 2006.

Feasibility grants

Grants of up to 50% of eligible expenditure are provided for feasibility studies to enable individuals, groups and firms to seek out and evaluate prospective new product ventures and market opportunities. Grants paid to industries located in the Shannon Free Zone are funded from Shannon Development's grant-in-aid grants to industry allocation. For indigenous companies in the Shannon Region, outside of the SFZ, Shannon Development receives an allocation from Enterprise Ireland's grant-in-aid vote.

€'000

TRAINING, EDUCATION AND INFORMATION

Specialised training is given to assist in the starting-up of new high technology firms.

2005	2006
------	------

457	584
-----	-----

TECHNOLOGY TRANSFER

427	400
-----	-----

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

73	120
----	-----

An Foras Áiseanna Saothar (FÁS)

The functions of FÁS, the National Training and Employment Authority, as defined in the Labour Services Act (1987) are:

The provision of training and re-training programmes for employment (whether directly provided by FÁS, or contracted out to external agencies); the provision of employment schemes; providing community groups with training and developmental supports in their enterprise and employment creation activities; providing employment and placement services, both to employers and the unemployed; assisting Irish people to obtain employment in other EU states (primarily through its SEDOC service) and providing advice and counselling for those of our citizens who wish to emigrate. FÁS also provides advice, guidance and training opportunities for immigrants, whether asylum seekers or economic migrants.

RESEARCH AND DEVELOPMENT

3,136

3,298

Planning and research

The planning and research department assists in the development of FÁS through providing planning and research inputs at corporate level. Its main areas of work include strategic and annual planning; labour market research and publication; identifying examples of best practice in industry, community enterprise and other areas related to FÁS's overall activities; the provision of a central library and technical information service for FÁS; the carrying out of specific research projects and other work associated with the compilation of information and data on behalf of FÁS but funded by the EU. In 2001 a new unit was established within the planning & research department. This new unit is responsible for the work associated with the National Expert Skills Group and provides reports regularly for this body. Unit staff also attend meetings of the group.

TRAINING, EDUCATION AND INFORMATION

81,350

88,800

During 2001 FÁS catered for 60,052 people on its training programmes (including apprentices) and on schemes catered for 42,888.

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

171

211

Overseas graduate programmes

The FÁS Overseas Graduate Programme places newly qualified Irish graduates with a Degree (or higher) in Business, Engineering or Sciences related fields into full-time employment with companies abroad particularly in China, Japan and Taiwan. The initial arrangement is for two years but may be extended by mutual agreement.

Science Foundation Ireland

Science Foundation Ireland (SFI) was set up by the Irish government in 2000 to support globally competitive scientific and engineering research in strategic areas that advance the country's technological and economic success and reputation. SFI is included as a sub-measure under the National Development Plan 2000-2006 (NDP) and its programmes and priorities remain consistent with the objectives for investing in research, technological development and innovation (RTDI) as set out in the NDP.

Science Foundation Ireland, the national foundation for excellence in scientific research, was established under the Industrial Development (Science Foundation Ireland) Act 2003 to establish Ireland as a centre of research excellence in strategic areas relevant to economic development, particularly the areas of biotechnology (BioT) and information and communications technologies (ICT). To accomplish its mission, SFI makes grants based upon the merit review of proposals from distinguished researchers.

In addition, SFI supports, through the Research Frontiers Programme (RFP), the very best research by academic researchers and research teams who are most likely to generate new knowledge, leading edge technologies and competitive enterprises in a broad range of disciplines in science, mathematics and engineering. Competition for this funding is driven by the scientific merit of the proposals.

SFI also advances co-operative efforts among education, government and industry that support its fields of emphasis and promotes Ireland's ensuing achievements around the world.

RESEARCH AND DEVELOPMENT

Biotechnology (BioT)	45,743	41,012
Information and communications technologies (ICT)	52,826	49,094
Frontiers engineering and science (FES)	22,891	42,321

SFI AWARD PROGRAMMES

SFI principal investigator programme grants (includes SFI fellows award)

Awards to leading researchers in the science and engineering sectors that underpin the BioT and ICT industrial sectors. Principal Investigator grants may range from €50,000 to €1,000,000 direct costs per year and may be up to 5 years in duration. Typical grants, however, will be in the range of €50,000 to €200,000 (direct costs) per year and will normally be up to 4 years in duration.

SFI Centres for Science, Engineering, and Technology: Campus-Industry Partnerships (CSET)

Established to fund researchers who will build collaborative efforts that develop internationally competitive research programmes with researchers from industry. Grants can be valued at up to €5 million per year initially, for up to five years. These grants support research partnerships linking scientists, engineers, and industry.

SFI Research Professor Recruitment Awards

In addition to funding the most promising talent within Ireland in the research areas underpinning ICT and BIO, SFI will through this Programme assist the Research Bodies in attracting outstanding Principal Investigators to their Institutions from outside the state.

President of Ireland Young Researcher Award (PIYRA)

Through this Award, SFI identifies the most promising of a new generation of top-tier cutting edge researchers in fields that are critical to Ireland's economic and social prosperity.

Research Frontiers Programme (RFP)

The main aim of this programme is to support the very best research in a broad range of disciplines in Science, Mathematics and Engineering. The competition will be driven by the scientific merit of the proposals and every eligible person with competitive research ideas is encouraged to apply.

E.T.S. Walton Visitor Awards

These have been instituted with the aim of bringing international researchers to Ireland for periods of up to one year. Grants usually total €200,000 per year, including salary, laboratory, and moving expenses.

Industrial Partnership Research Supplements

Supplementary awards to fund collaborative projects between existing SFI peer-reviewed programmes and industry.

SFI Workshops and Conferences Grants

Set up to support events either sponsored by or involving Irish scientists and research bodies that reach an international scientific audience.

SFI Women in Science & Engineering Research

This aims to encourage the development of sustainable mechanisms and practices which will ensure that women have an equal opportunity to compete on the basis of their scientific expertise, knowledge and potential.

Undergraduate Research Experience & Knowledge Award (UREKA)

UREKA supports active research participation by undergraduate students during the Summer.

Secondary Teacher Assistant Researchers (STARs)

STARs supports second-level teachers in conducting research in Irish laboratories during the summer months.

SFI Equipment Call 2006

This supplement provides additional resources to enable existing projects progress more quickly or to improve the quality of the research output by investment of additional resources/equipment.

Overhead Investment Plan

SFI overhead funds are contributions to the indirect costs associated with hosting SFI-funded research programmes.

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

530

National Microelectronics Applications Centre

MAC, The National Microelectronics Applications Centre Ltd, in Limerick, (www.mac.ie) was established in 1981 to provide complete electronic, software and e-business/e-government technological solutions. Over the years MAC has developed a strong reputation and track record of working with customers and partners in the profitable application and innovative productisation of advanced electronics and information society technology.

MAC web-enables products and services and delivers complete contract and joint venture development, including total project management, technical consultancy and development of EU project consortia and proposals plus advice, development and hosting of public and private sector transactional Internet-based applications and web services.

MAC works closely with companies, entrepreneurs and public organisations on its technological solutions for them and to date has delivered over 250 product developments, 65 online services, 175 process applications, 540 consultancy projects, 33 pan-European technology development consortia and has investigated over 3,000 preliminary ideas for high technology products. MAC employs a total of 8 permanent staff, together with a varying number of short-term contract personnel.

TECHNOLOGICAL DEVELOPMENT

Electronic, software and ICT products, services and business process developments including distributed systems and web-enabling existing products, technical consultancy and project management and Internet/Web e-Government services are carried out on a contract basis for firms. 13 projects were completed in 2005.

RESEARCH AND DEVELOPMENT	420	420
TECHNICAL SERVICES	60	100
TRAINING, EDUCATION AND INFORMATION	20	35
TECHNOLOGY TRANSFER	10	25
OTHER SCIENCE AND TECHNOLOGY ACTIVITIES	10	20

Department of the Environment, Heritage and Local Government

The Department is responsible for policy and programme formulation in relation to the environment, heritage, planning and housing; the development and financing of public infrastructure; the local government system; and for a number of regulatory functions. Most of the Department's spending is channelled through local authorities and as such local authorities are the main providers of public infrastructure and the provision of services locally. The Department's mission is "to promote sustainable development and improve the quality of life through protection of the environment and heritage, infrastructure provision, balanced regional development and good local government".

The annual estimate for the Department in 2004 is in excess of €2.3 billion.

The Department employs over 1,200 staff. The Department also funds the Radiological Protection Institute of Ireland, the Environmental Protection Agency and Met Éireann, which are considered separately in this document. Funding for Met Éireann reached €17.5 million in 2005.

TECHNICAL SERVICES

National parks and wildlife services

The research branch provides the necessary scientific expertise and advice for the implementation of Ireland's nature conservation policies including those arising under the Wildlife Act, 1976 and various directives and regulations relating to nature conservation.

4,000

4,500

Administration

Monitoring and evaluating the implementation of planning legislation at local authority level by providing: annual statistics on planning control and administration; quarterly statistics of planning applications and decisions; annual inventories of environment impact statements and regular sample surveys of the operation of the development process. Information searches in relation to guidance notes and development plan preparation are carried out. Some work is ongoing in relation to the use of GIS.

31

33

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

International collaboration

Contributions to international organisations:

- ▶ International Atomic Energy Agency
- ▶ International Atomic Energy Agency (Nuclear Terrorism Safeguards)
- ▶ Nuclear Energy Agency
- ▶ International Meteorological Organisations

8,261

8,148

E-Procurement

e-procurement is the process of sourcing, buying and paying for goods and services using information and communications technology as the communications mechanism.

153

250

Environmental Protection Agency

The Environment Protection Agency (EPA) is an independent public body established in July 1993 under the Environment Protection Agency Act, 1992. Its sponsor in Government is the Department of the Environment, Heritage and Local Government. The EPA has a wide range of statutory duties and powers under the Act.

The main responsibilities of the EPA include the following:

- ▶ Licensing large/complex industrial and other processes with significant polluting potential;
- ▶ Monitoring environmental quality, including the establishment of databases to which the public have access;
- ▶ Publishing periodic reports on the state of the environment;
- ▶ Promoting environmentally sound practices;
- ▶ Promoting and co-ordinating environmental research;
- ▶ Licensing all significant waste recovery and disposal activities (including landfills) and the preparation and periodic updating of a national hazardous waste plan;
- ▶ Implementing a system of permitting for the control of VOC emissions resulting from the storage of significant quantities of petrol at terminals;
- ▶ Implementing and enforcing the GMO Regulations for the contained use and deliberate release of GMOs into the environment;
- ▶ Preparing and implementing a national hydrometric programme;
- ▶ Drafting a national allocation plan for greenhouse gas emissions allowance trading: the establishment of a national competent authority for the issuing of trading permits and allowances to those covered by the scheme; the monitoring, overseeing and verification of emissions from participating companies; and the establishment of a national emissions trading registry.

The main responsibilities under the office of environmental enforcement, established in 2003 and dedicated to the implementation and enforcement of environmental legislation in Ireland are:

- ▶ Improving overall compliance with environmental protection legislation in Ireland;
- ▶ Raising awareness about the importance of enforcement of environmental protection legislation in Ireland;
- ▶ Enforcing IPPC licences and waste licences issued by the EPA;
- ▶ Auditing and reporting on the performance of local authorities in the discharge of their environmental protection functions, including:
 - Enforcement in respect of breaches of waste permits,
 - Taking action in relation to illegal dumping,
 - Implementation of waste collection permits, and
 - Enforcement of producer responsibility initiatives (for example, in the area of packaging waste);

	€'000	
	2005	2006
<ul style="list-style-type: none"> ▶ Taking action against local authorities that are not discharging their environmental protection functions in an adequate manner; ▶ Prosecuting, or assisting local authorities to prosecute, significant breaches of environmental protection legislation, in a timely manner and ▶ Assisting local authorities to improve their environmental protection performance on a case by case basis, through the establishment of an enforcement network to promote information exchange and best practice, and by the provision of appropriate guidance. 		
RESEARCH AND DEVELOPMENT	6,611	6,585
<p>The environmental research technological development and innovation (RTDI) programme (2000 - 2006)</p> <p>Through its research programme, the EPA is generating knowledge and expertise needed to help protect and manage Ireland's environment. Funding for this programme, which will amount to over €32m. over the period 2000-2006, is provided by the Department of the Environment, Heritage and Local Government through the National Development Plan.</p>		
TECHNICAL SERVICES	10,655	10,955
<p>IPC licensing and enforcement:</p> <p>Implementation of the agency's IPC licensing and enforcement functions is the main technical service provided by this area.</p>		
<p>Environmental monitoring and laboratory services</p> <p>The main services provided are in national biological and physio-chemical monitoring programmes for river water quality; measurements of riverine inputs of pollutants to marine waters; collation and processing of hydrometric data; the operation of air quality monitoring stations for NO₂ and ozone; collation of data on SO₂ in smoke from local authority air quality measuring networks; estimates of national atmospheric emissions and back-up analytical services to local authorities, including the operation of a laboratory intercalibration programme; investigations of pollution incidents.</p>		
<p>Environmental management and planning waste licensing and enforcement</p>		
TRAINING, EDUCATION AND INFORMATION	2,332	2,370

Radiological Protection Institute of Ireland

The Radiological Protection Institute of Ireland was established on 1st April 1992 in accordance with the provisions of the Radiological Protection Act, 1991. Its main functions are:

- ▶ to advise the Government and to provide information to the public on matters relating to radiological safety;
- ▶ to regulate the use, transportation and disposal of radioactive materials;
- ▶ to prepare safety codes and regulations for the safe use of ionising radiation;
- ▶ to measure levels of radioactivity in the environment and assess their significance;
- ▶ to assist in the development of a national plan from an emergency arising from a nuclear accident;
- ▶ to provide a dosimetry service and to promote knowledge, proficiency and research in nuclear science and technology.

RESEARCH AND DEVELOPMENT

622

1,330

Monitoring of environmental radiation

This programme monitors contamination of the aquatic and terrestrial environment by radioactivity from man-made sources, and related research is carried out. It also provides an export certification service to Irish industry.

Radon studies and information service

The monitoring of indoor radon levels in homes, schools and workplaces and related research to determine the extent of elevated radon levels in buildings is the main element of the programme. Information and advice to government and other agencies on all matters relating to ionising radiation are provided by the Information Service.

TECHNICAL SERVICES

1,085

1,378

Radiation protection in medicine and industry:

The programme controls, by licence, the use of ionising radiation in medicine, industry, research and education: prepares regulations and codes for the safe use of ionising radiation and provides personnel dosimetry and instrument calibration services.

Emergency planning

The RPII has a key role to play in the national emergency plan for response to any threat of radiation exposure in Ireland as a result of an accidental release of radioactivity into the environment from a nuclear accident.

TRAINING, EDUCATION AND INFORMATION

1,467

1,769

Met Éireann

Met Éireann, the Irish Meteorological Service, established in 1936, is a division of the Department of the Environment, Heritage & Local Government. The service is engaged in the following activities:

- ▶ collection, analysis and publication of meteorological, geophysical and geochemical data;
- ▶ supply of weather forecasts, statistical information and scientific advice to agricultural, industrial and public utility undertakings, the press, radio and television, maritime interests and members of the public;
- ▶ supply of similar information to government departments, semi-State bodies, and the defence forces;
- ▶ provision of meteorological facilities for civil airlines operating to and from airports in Ireland and/or flying over Irish territory, and the supply of advice on meteorological aspects of civil aviation problems generally;
- ▶ development work in fundamental and applied meteorology;
- ▶ co-operation with the meteorological services of other countries and the representation of Ireland at meetings concerned with international co-operation in meteorology.

Met Éireann is funded directly by the Department of the Environment, Heritage & Local Government but a significant portion of the expenditure is recovered by the Department in the form of route charges (€7.83m in 2005) payable by the airlines for meteorological services to civil aviation and by means of fees (€1.65m in 2005) for information and advice supplied to commercial and other interests on a repayment basis.

231 staff are employed in the Service on a full-time basis.

RESEARCH AND DEVELOPMENT

5,173

5,444

Research is carried out in various fields of meteorology and climatology. The primary thrust of the research effort is towards the development of computer models for weather analysis and prediction and participation in an international research collaboration called HiRLAM (High Resolution Limited Area Modelling), together with Norway, Sweden, Finland, Denmark, Spain, the Netherlands and Iceland. The HiRLAM forecasting model is now in routine use.

A community climate change consortium for Ireland (C4I) has been established with a regional climate analysis, modelling and prediction centre (RCAMPC) based in Met Éireann HQ. While still at a relatively early stage, the objective is to consolidate and intensify the national effort in climate change research by building a capability for carrying out regional climate modelling in Ireland. The regional climate model (RCM) to be implemented will be based on the HiRLAM model.

Ireland, through Met Éireann, is a member of a number of international organisations which either concern themselves with the co-ordination and standardisation of meteorological activities on a global basis, or comprise co-operative ventures on the part of a number of countries, to make available facilities which would be difficult or impossible for an individual country to provide on its own. These include the WMO, EUMETSTAT and ECMWF.

TECHNICAL SERVICES

Meteorological information is provided on a routine basis to the media and the general public. A successful premium rate weather service is operated and its scope extended to allow for provision of data and/or forecasts via fax. A separate premium rate service dedicated to aviation sector users was introduced in 1998.

2005	2006
5,332	5,737

TRAINING, EDUCATION AND INFORMATION

Training is provided within the Service in several areas. More specialised training is obtained by sending staff to outside agencies. In 2004, Met Éireann and UCD agreed to co-fund the creation of a Chair of Meteorology in UCD. The first course, leading to an MSc in Meteorology, commenced in September. Met Éireann expects to utilise this course to satisfy some of its training requirements for the future.

2005	2006
9,688	10,415

TECHNOLOGY TRANSFER

2005	2006
446	471

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

2005	2006
	4

Department of Social and Family Affairs

The main functions of the Department are to formulate appropriate social protection policies and to administer and manage the delivery of statutory and non-statutory social and family schemes/services.

The mission of the Department is "to promote a caring society through ensuring access to income support and other services, enabling active participation, promoting social inclusion and supporting families".

RESEARCH AND DEVELOPMENT

8,658

16,541

Planning (policy) unit – monitoring and evaluation

The main objectives here are: the systematic review and evaluation of social welfare policies, programmes and schemes; the monitoring of economic and demographic developments and their impact on social welfare; the formulation of new social policy developments and their budgeting; liaison with government departments and other agencies on social policy matters; the effective implementation of NAPS & NAPS/inclusion by the Office for Social Inclusion; the compilation/development of statistical bases for internal management and for publication. 54 staff are employed on these activities.

Economic and Social Research Institute (ESRI)

In addition to projects commissioned by the department, it also has an ongoing research programme with the ESRI. Aspects of this programme include: the detailed analysis of household surveys providing a vital source of information on, for example, the nature and causes of poverty, the position of vulnerable groups etc.; the ESRI tax-benefit model (SWITCH), which enables the potential effects of tax and social welfare changes to be modelled and specific items of research e.g. relative poverty levels in a comparative perspective.

Combat Poverty Agency

The agency's main functions are policy advice, project support and innovation, research, public education and to support the effective implementation of the National Anti-Poverty Strategy (NAPS & NAPS/inclusion) at national, local and European levels. The Agency undertakes, commissions and publishes research, evaluations, policy reports and other information on aspects of poverty. It produces practical resource materials and supports training and education programmes for the community and voluntary sector as well as providing direct funding through grant schemes. It supports innovative approaches to tackling poverty through resourcing pilot programmes.

	€'000	
	2005	2006
TECHNICAL SERVICES	14,932	17,917
Consultancy etc.		
This expenditure is mainly in respect of fees and expenses for consultancy assignments, research and studies. The services covered are mainly the eGovernment projects (REACH, GRO, OASIS); the design and development of new computer systems to support the administration of social welfare services; technical software support.		
TRAINING, EDUCATION AND INFORMATION	1,176	1,313
Library/Publications		
International collaboration		
International social security association		
The department is a member of the International Social Security Association, the aims of which are the protection, promotion and development of social security throughout the world.		
EU Community action programme to combat social exclusion 2002 – 2006 (exchequer contribution)		
The EU has established a five-year programme of community action to encourage co-operation between member states in order to combat social exclusion. Ireland is participating in 13 projects that are being supported under the second phase of the trans-national exchange programme (TEP) from a total of 31 projects approved by the EU Commission.		
OTHER SCIENCE AND TECHNOLOGY ACTIVITIES	1,095	1,491

Department of Transport: National Roads Authority

The National Roads Authority was established with effect from 1 January, 1994, under the provisions of the Roads Act, 1993.

The Authority's primary function, under section 17 of the 1993 Act is to secure the provision of a safe and efficient network of national roads. For this purpose it has overall responsibility for the planning and supervision of construction and maintenance works on these roads. In addition to its general mandate, the Authority has been assigned a number of specific functions under the Roads Act, including:

- ▶ preparing medium term plans for the development of the national road network;
- ▶ preparing or arranging for the preparation of road designs, maintenance programmes and schemes for the provision of traffic signs and delineation/road markings on national roads;
- ▶ securing the carrying out of construction, improvement and maintenance works on national roads, allocating and paying grants to local authorities for these purposes;
- ▶ carrying out or assisting with training, research or testing activities in relation to any of its functions;
- ▶ promoting the case for Exchequer funding and EU assistance for national roads;
- ▶ entering into agreements with the private sector for the financing, operation and management of national road projects, and
- ▶ making toll schemes for national roads.

The research activities of the NRA are undertaken by:

- ▶ The Engineering and Network Management Division.
- ▶ The Road Maintenance and Pavement Assessment Division.

The Divisions comprise the national centre for road research in Ireland and they perform two broad functions:

- ▶ to undertake research and development on road construction, maintenance, safety and transport matters of particular importance in Ireland, and
- ▶ to serve as a centre which can disseminate the findings of research in Ireland and other countries.

A number of the Authority's research functions in the area of Road Safety will be assigned to the proposed Road Safety Authority on establishment.

Both Divisions provide the National Roads Authority, the Department of Transport, local authorities and their consultants and contractors with information, technical assistance and guidance related to all aspects of road construction, traffic, safety and transportation which enable them to formulate policy and plan, design, construct, maintain and operate the road system in the most cost effective manner and to best practice safety standards. The technical and information services of the Divisions cater for these functions.

RESEARCH AND DEVELOPMENT

Engineering and Network Management Division

109

89

Research is carried out on traffic growth, road accidents and counter measures, speed and seat belt wearing surveys, travel times, vehicle volume forecasts, social attitudes to travel risk and the maintenance and updating of the national road database. A number of the Authority's research functions in the area of Road Safety will be assigned to the proposed Road Safety Authority on establishment.

Road maintenance and pavement assessment

48

57

Research is undertaken on the development of procedures for the acquisition of road pavement performance data on construction and maintenance methods.

Technical services

164

169

The services include: surveys of condition of road pavements, including skid resistance, strength and riding quality; technical support in preparing national specifications for road works; road traffic counting and accident recording; preparation of a road signs manual and cost benefit analysis for transport investment.

TRAINING, EDUCATION AND INFORMATION

369

334

Activities include maintenance of detailed databases on traffic counts, road accidents, skid resistance of roads, strength and condition of road pavements, provision of library and technical information services.

116

112

TECHNOLOGY TRANSFER

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

164

169

Department of Community, Rural and Gaeltacht Affairs: Údarás na Gaeltachta

Údarás na Gaeltachta was established under the Údarás na Gaeltachta Act, 1979 and came into operation on 1st January 1980 to replace Gaeltarra Eireann which was dissolved by the same Act.

The objectives of An t-Údarás are as follows: to encourage the preservation and extension of the Irish language in the Gaeltacht; to attract suitable native and foreign manufacturing projects to the Gaeltacht; to establish, develop and manage productive employment enterprises in the Gaeltacht; to participate in industries as an equity partner and to provide services to assist new industries becoming established. Údarás na Gaeltachta is financed by grant-in-aid, rents, repayable advances and other income. Údarás na Gaeltachta employs 113 people.

RESEARCH AND DEVELOPMENT

Research and development grants:

2,409

2,450

Grants of up to 60% subject to a maximum of €126,973 for any one project are available to assist R&D in industry in the Gaeltacht regions. Since 1995 this programme is part funded from RTI on a re-imburement basis from Enterprise Ireland. €979,000 was reimbursed in 2005 and €1,000,000 is estimated to be reimbursed in 2006. 68 grants were awarded in 2005, of which 59 went to manufacturing industry and 9 went to the marine sector.

Feasibility study grants:

308

400

These grants enable individuals, groups and firms to seek out and evaluate prospective new product ventures. 44 grants were given in 2005.

Department of Education and Science

The Department of Education and Science was established under the Ministers and Secretaries Act 1924 and is responsible for the administration of public education i.e. first level, second level, and third level.

The Department's total net allocation for 2006 is €7,633m. The allocation for S&T activities is €692m. This is mainly to fund scientific and technical activities in the Institutes of Technology. The Department also funds grants and scholarships to enable students to pursue S&T courses in third level colleges and a range of R&D activities. Expenditure and programmes for the Higher Education Authority and the Dublin Institute for Advanced Studies are listed separately.

Under the 2000-2006 National Development Plan/Community Support Framework, the Department will receive exchequer and EU aid in respect of a number of the S&T related programmes operated in the universities and institutes of technology under the employment and human resource development operational programme and the productive sector operational programme.

The employment and human resources development operational programme includes a number of measures, which contain elements of S&T funding. These measures include the middle level technician (MLT) and higher technical and business skills (HTBS) programme, the undergraduate skills (ESF aided), postgraduate conversion programmes, third level quality assurance, the national qualifications framework (ESF aided) and education infrastructure.

The productive sector operational programme includes the research technological development and innovation (RTDI) programmes. The measures operating under the RTDI include basic support for research and communications, project-based and individual research, technological sector research and the strategic research (ERDF aided) measure which includes the programme for research in third level institutions (PRTL) and north/south co-operation. The department has approximately 1,140 staff.

The provision in 2006 for the capital component of the Programme for Research in Third Level Institutions (PRTL) and the capital element of the Research Technological Development and Innovation (RTDI) is €35 million.

The Higher Education Authority has been asked to develop proposals and mechanisms for expenditure of this research and development provision on the basis of making funding available to universities and institutes of technology through a competitive process.

RESEARCH AND DEVELOPMENT

Third level research and development activities:

69,247

80,983

An allocation of €80,983m has been provided in 2006 for current spending on research and development. This provision is available to all universities and institutes of technology to support the development of their research capabilities, to support outstandingly talented individual researchers, and to encourage co-operation within institutions and between institutions. This funding will be allocated for research in humanities, social sciences, and science and technology.

	€'000	
	2005	2006
RTDI (capital)	709	2,913
PRTL (See HEA return)		
Direct research & department committee support	111	300
The Department will directly support a number of educational research projects through its research and development committee.		
EU projects supporting R&D	1,561	1,597
Support is being provided for certain projects jointly with the EU. In 2006 activities will include:		
(i) LEONARDO – the vocational preparation and training of young people in the context of the EU action programme in education		
(ii) SOCRATES action programme - this is the education programme for schools and adult learners.		
European university	143	250
Contributions to the budget of the Institute (Italy) and support of Irish students to pursue research projects.		
St. Patrick's College	1,310	1,310
Support for research activities in the field of education in St. Patrick's College, Drumcondra.		
TRAINING, EDUCATION AND INFORMATION		
Institutes of technology	336,034	379,189
Funding of the scientific and technical activities in the institutes of technology. Support for third level S&T education accounts for almost 70% of the total exchequer grants for institutes of technology (education and science vote).		
Third level grants:	115,887	122,592
Provision of maintenance grants for students under the higher education grants scheme, the VEC scholarship scheme and the third level maintenance grants scheme for trainees to enable them pursue S&T related courses in third level colleges, institutions, and institutes of technology.		
Provision of Third Level Scholarships enables students to pursue S&T courses in third level colleges and institutions.	541	574
Scholarships are also paid to Irish students to attend the College of Europe, Bruges.	29	35

	€'000	
	2005	2006
Science and technological education (investment) fund	7,373	48,133
<p>The passing of the scientific and technological education (investment) fund Bill 1997 by both Houses of the Oireachtas resulted in the establishment of the Fund which is used to develop technology education at all levels ranging from primary schools to advanced research. The three main objectives of the fund are:</p> <p>(i) To review, extend and modernise the infrastructure of third level institutions, particularly in the technological sector</p> <p>(ii) To develop new areas of activities where emerging skill needs have been identified</p> <p>(iii) To invest in promoting innovation to maintain and further our economic growth.</p> <p>Over €7m was spent from the fund in 2005 and approximately €48m will be spent in 2006 mainly on projects in the institutes of technology and the universities.</p>		
International science & technology activities	447	500
<p>Irish contribution to UNESCO, the International Institute for Education Planning, and the International Centre for Registration of Serials.</p>		
ICTs programme for schools	9,582	11,418
<p>The schools ICT Programme aims to ensure that pupils in first and second level schools have the opportunity to achieve computer literacy and to equip themselves for participation in the information society. It includes a comprehensive teacher-training programme in ICTs.</p>		
The provision in 2006 for the capital component of this programme is €10m. This money will assist with the development of computer networks in first and second level schools.	5,586	10,000

Higher Education Authority

The Higher Education Authority (HEA), which is under the aegis of the Minister for Education and Science, is a body corporate with perpetual succession, established in May 1972 under the provisions of the Higher Education Authority Act, 1971. The HEA has the following general functions:

- a) furthering the development of higher education
- b) assisting in the co-ordination of State investment in higher education and preparing proposals for such investment
- c) promoting the attainment of equality of opportunity in higher education
- d) promoting the democratisation of the structure of higher education.

In addition, it has the following specific functions:

- a) advising the Minister on the need for the establishment of new institutions of higher education, on their nature and form, and on legislative measures in relation to their establishment (or in relation to existing institutions)
- b) maintaining a continuous review of the demand and need for higher education
- c) making recommendations to the Minister on the provision of student places and the balance between institutions
- d) making recommendations to the Minister on the provision for higher education and research, either in relation to current or future periods
- e) instituting and conducting studies on problems of higher education and research, and publications or reports of such studies
- f) payment to institutions of higher education out of monies provided by the Oireachtas, such amounts as may be approved by the Minister (with the consent of the Minister of Finance).

The HEA is financed by a grant-in-aid from the Department of Education and Science out of a total vote of €1,489,552,000 for third level and further education (2005 estimated figure of vote 26E). The HEA general (non-capital) grants account for an estimated €670,536,000 including €215,000,000 for fees. Besides the exchequer grant (via the HEA), colleges and other institutions receive non-exchequer monies i.e. non-exchequer fees, research grants and other income.

The HEA does not directly fund research in universities. The block-grant is not specifically earmarked for any purpose by the HEA but is divided between departments at college level. As academic salaries are funded by the block grant it is assumed that a percentage of the grant goes to fund research.

Approximately 56.5% of current exchequer expenditure, provided by the HEA and 68.8% of non-exchequer expenditure is for the area of science and technology. The analysis to derive that part of the HEA block grant attributable to R&D in the 2005 budget is similar to that used in the 1999-2004 budgets. A distinction is made between the HEA block grant allocated to academic departments and administration and support services.

RESEARCH AND DEVELOPMENT

General promotion of knowledge

258,458

253,482

General support for R&D activities in the relevant faculties in universities and other designated higher education institutions i.e. implicit support for R&D contained in the HEA allocations to individual colleges and institutions together with external sources and research funds. In addition to funds for R&D which are implicit in the HEA's grant to colleges because of the integral part which research plays in the working time of academic staff, third level colleges are awarded grants for research from a variety of sources. These funds are included here for completeness but are not part of the HEA budget to colleges. These figures include funds from the various operational programmes that pass research grants to university researchers.

Programme for research in the third level institutions (PRTLII)

75,485

58,210

The programme for research in third level institutions (PRTLII) is a government initiative, to strengthen the basic research capabilities of third level institutions in Ireland. The programme is funded under the National Development Plan (NDP) 2000-2006, with assistance from the European Regional Development Fund and through a partnership with private sources. A total of €605 million has been allocated to date. The management of the programme and the allocation of funds (current and capital) are co-ordinated by the Higher Education Authority (HEA) on behalf of the Department of Education and Science.

Training, education and information

361,885

369,800

General support for undergraduate education and training in the following faculties in universities and other designated higher education institutions: education and related sciences; architecture, medical and related sciences and natural sciences. Also provision of equipment to support science and technology education and training.

Dublin Institute for Advanced Studies (DIAS)

The Dublin Institute for Advanced Studies is a statutory corporation established in 1940 under the Institute of Advanced Studies Act, 1940. The Institute has three constituent schools – the School of Celtic Studies (not included in the Science Budget), the School of Theoretical Physics and the School of Cosmic Physics. Each school has an independent governing board. The institute, through the constituent schools, pursues fundamental research and trains advanced students in methods of original research.

RESEARCH AND DEVELOPMENT

The school of theoretical physics

577

828

The school pursues research in theoretical particle physics; quantum gravity; field theory; noncommutative geometry; classical and quantum statistical mechanics and disordered quantum systems. Currently, there is also a collaborative project with researchers in UCD concerning the conductivity of carbon nanotubes.

The school of cosmic physics

1,715

2,572

The school of cosmic physics conducts original research in the areas of astronomy, astrophysics and geophysics and provides professional advice in these areas on an occasional basis. The geophysics section runs the national seismic monitoring service and acts as a contractor for, among other projects, the seabed survey. The astronomy and astrophysics section is a major promoter of high-performance computing in Ireland, most notably through the CosmoGrid project.

TECHNICAL SERVICES AND EDUCATION AND TRAINING

The school of theoretical physics:

631

676

Provides information and advisory services in the following areas:

theoretical particle physics; quantum and classical field theory and applications; quantum gravity; classical and quantum statistical mechanics and applications and in particular, quantum electronics; Monte-Carlo simulation; data analysis; coding theory and telecommunications.

The school of cosmic physics:

2,006

1,896

Provides information on astronomical and geophysical phenomena on request to government departments; to educational authorities; to the Garda Síochána and to the legal; engineering and medical professions etc. The CosmoGrid project organises specialist training courses in grid computing and other aspects of high performance computing.

TECHNOLOGY TRANSFER

20

18

Irish Research Council for the Humanities and Social Sciences

The Research Council for the Humanities and Social Sciences (IRCHSS) was established in 2000 by the Minister for Education and Science in response to the need to develop Ireland's research capacity and skills base in a rapidly-changing global environment where knowledge is key to economic and social growth.

With the support of the National Development Plan, the IRCHSS promotes cutting-edge research in the humanities, social sciences, business and law with the objective of creating new knowledge and expertise beneficial to Ireland's economic, social and cultural development. The research council is engaged in the strategic exchange of operational expertise and best practice through its membership of EU ERA-NET consortia for European research councils in the humanities and social sciences. As national contact point for priority 7 ('Citizens and Governance in a Knowledge-based Society') of EU Framework Programme Six and through its representation on the COST Technical Committee for the Humanities and Social Sciences and membership of the European Science Foundation, the research council works strategically to integrate Irish research within the European research area.

RESEARCH AND DEVELOPMENT

7,400

8,300

The research council operates six interlinked research schemes. The IRCHSS Government of Ireland Post-Graduate Scholarships and Government of Ireland Post-Doctoral Fellowships fund research at pre and post doctoral levels. The research council operates three schemes which offer research opportunities for members of the academic staff of recognised third-level institutions to undertake stated projects (Government of Ireland Senior Research Scholarships; Government of Ireland Research Fellowships; Government of Ireland Senior Research Fellowships). A sixth scheme operated by the research council known as Government of Ireland Research Projects Grants funds world class innovative research undertaken on an extended or group project basis.

Irish Research Council for Science, Engineering and Technology

The Embark Initiative is managed by IRCSET - the Irish Research Council for Science, Engineering and Technology which was established in June 2001 by the Minister for Education and Science, in order to promote excellence in research across science, engineering and technology. The Council's operations are funded by the State through the National Development Plan. IRCSET is an independent and autonomous body established under the aegis of the Minister for Education and Science.

The Embark Initiative launched its first programme, the basic research grant scheme, jointly with Enterprise Ireland in December 2001. This was followed by new programmes of assistance, the postgraduate research scholarship awards and the postdoctoral fellowship scheme. The council continues to develop its portfolio of support schemes.

RESEARCH AND DEVELOPMENT

15,196

18,382

The Embark Initiative seeks to position Ireland decisively as an international centre of excellence and achievement in research by encouraging students and researchers to pursue a full-time career in their chosen research area. Providing funding to full-time researchers at the early stages of their careers will ensure that research is a viable and beneficial career option and that ideas, potential and creativity, crucial to Ireland's future success, are not lost. Not only will it increase research capacity, but it will also enhance teaching with relevant and current research experience.

In 2004 IRCSET entered an ongoing collaboration with other EU countries on two initiatives, organised under the ESF's EUROCORES research scheme; smart structural systems technologies and biodiversity. Following the application and assessment phase in 2005, projects under the biodiversity initiative will be commencing in 2006.

The alliance with the French national centre for scientific research (CNRS), established in 2004 has continued to develop to ensure support for co-operation between French and Irish researchers.

IRCSET have also been involved in the preliminary phase of the 'Complexity Net' project administered and funded through the EU and FP6. This project aims to identify national programmes supporting major complexity research and research-training activities and to identify central evaluation and handling procedures, and to develop plans for using and disseminating knowledge across countries and research communities. Following the success of this project in 2005 and the support from the research community for this initiative IRCSET will be participating in the next phase of this programme commencing in 2006.

In order to ensure continued excellence in postgraduate formation, IRCSET together with HEA and IRCHSS have been involved in a major consultation to encourage the formation of graduate school approaches as advocated by the OECD examiners report and by other professional opinions. It is expected that a subsequent competition for funding will follow shortly.

The postgraduate research scholarship scheme

In addition to the Embark Scholarships, in 2004 and 2005 co-operative awards were offered in conjunction with a number of research partners. This aspect of the scheme continues to be expanded in 2006 to encompass a larger number of research areas and to ensure a greater number of talented researchers receive support.

The postdoctoral fellowship scheme

The Embark Initiative's postdoctoral fellowship scheme is designed to stimulate and support postdoctoral research in the sciences, engineering and technology.

The unique initiative is designed to empower researchers at an early stage of their research career to build upon their PhD work and to benefit from the experience of established research teams.

Department of Communications, Marine and Natural Resources

The Department was formed in June 2002. The Mission statement of the department is "to promote the sustainable development, management and regulation of the communications, energy, marine and natural resources sectors in support of national economic and social policy objectives".

RESEARCH AND DEVELOPMENT

Exploration Mining Division

91

54

The purpose of the division is to stimulate the discovery of economic mineral deposits and to maximise the contribution of the mining sector to the national economy, with due regard to its environmental and social impact.

Digital Research Fund

1,165

1,000

A fund to complete the third level digital research projects that had commenced under Media Lab Europe.

Geological Survey Ireland

600

750

The geological survey of Ireland was established in 1845 and is currently a division of the Department of Communications, Marine and Natural Resources. The GSI is the national geoscience agency. Its role is the provision of information and advice on all aspects of geology, especially as they relate to mineral resources and the environment in Ireland.

TECHNICAL SERVICES

Petroleum Affairs Division

644

700

The purpose of the division is to maximise the benefits to the national economy from exploration for, and production of, indigenous oil and gas resources, while ensuring that activities are conducted safely and with due regard to their impact on the environment and other land/sea users. The technical section of this division provides the technical expertise necessary for the promotion, monitoring and controlling of petroleum exploration and development activities by private enterprise under licence to the department, specifically the creation, processing (where necessary), analysis and interpretation of geological, geophysical and engineering data supplied by licensees and the formulation of technical recommendations and advice.

	€'000	
	2005	2006
Exploration Mining Division (as above)	305	450
The technical part of the division (EMD Technical) is involved in promoting inward investment in exploration and regulatory and monitoring work for all holders of State facilities under the Minerals Development Acts, 1940 to 1999.		
In 2005 consultants were engaged to advise the division concerning various proposals submitted by the industry and to monitor the development of new mines.		
TRAINING, EDUCATION AND INFORMATION	20	25
Exploration Mining Division (as above)		
Petroleum Affairs Division (as above)		
TECHNOLOGY TRANSFER	19,405	36,000
OTHER SCIENCE AND TECHNOLOGY ACTIVITIES		
Capital expenditure (broadband and others)		
The broadband infrastructure project aims to establish broadband service availability to all towns in Ireland with populations of +1,500, through the construction of carrier-neutral, open access Metropolitan Area Networks (MANs). The MANs being constructed consist of fibre optic cable and ducts with co-location space available to telecommunications service providers on an open access basis. The objective is to foster real competition among service providers on the basis of price and service.		
The total cost of the MANs will be in the region of €270m, of which 90% will be contributed by DCMNR and 10% by the various local authorities.		
Exploration Mining Division (as above)	13	20
Information Systems Division	2,292	0

Marine Institute

The Marine Institute has the general functions “to undertake, to co-ordinate, to promote and to assist in marine research and development and to provide such services related to marine research and development that in the opinion of the Institute will promote economic development and create employment and protect the marine environment”.

The Marine Institute is also responsible for advising the Minister on policy relating to marine research and to advise the Minister on proposals relating to such research and development requiring funding from the exchequer or from any State owned or controlled organisation.

The Institute receives funding in the form of a grant from the Department of the Marine and Natural Resources - €23.346m in 2005 and €25.151 m in 2006. It also receives funding from other votes from the Exchequer – approx €5m in 2005 and approx €7 m in 2006.

RESEARCH AND DEVELOPMENT

Strategic planning and development

3,321

3,069

The Marine Institute initiated a process to prepare a new Marine Research and Innovation Strategy spanning the period 2006-2012. This included a review of the 1998 Strategy, the compilation of a maritime industries database, an assessment of the contribution of the marine sector to Ireland’s economy and other strategic position papers. Other key functions include support for the development of marine technology, marine tourism and leisure and ICT development including new applications for both data mining and customer service.

Ocean services division

5,902

8,155

Ocean science services underpins marine research programmes by providing efficient and cost effective services through the management of two research vessels, which form a crucial part of marine research for the seabed survey, fisheries surveys and environmental surveys. 2006 was a year of continued growth in activity with both ships operating at capacity. The National Seabed Survey continues to focus on value-added products, and the development of services and ancillary projects from the survey in order to maximise the potential of survey activity. The management of the national equipment pool and management and operations of Irish Marine Data Buoy Network continued to underpin many national programmes.

Fisheries science services

5,542

5,665

The fisheries science services team assesses, researches and advises on the sustainable development of our living marine resources. FSS informs both Department of Communications, Marine and Natural Resources (DCMNR) and EU policy objectives, management and development strategies for marine fisheries through the pages of the annual stock book.

	€'000	
	2005	2006
<p>Marine environment and food safety</p> <p>The MEFS team comprises 50 scientists who carry out a wide range of research and monitoring tasks in the areas of marine environment and seafood safety. The MI's food safety programmes provide a solid basis for the Irish seafood sector to meet EU regulations and to ensure full consumer safety for the Irish and export markets.</p>	5,497	5,445
<p>Aquaculture and catchment management</p> <p>The main functions of ACMS are to research, monitor, analyse and advise in the areas of fin fish aquaculture, salmonid rearing, wild salmon & eel stock dynamics and freshwater catchment studies.</p>	2,414	2,402
<p>Irish maritime development office</p> <p>The Irish maritime development office has a statutory mandate to promote growth in the Irish shipping sector and to attract to Ireland additional marine related operations, along with key players in international shipping and ancillary services.</p>	1,246	1,206
<p>Corporate services</p> <p>The corporate services division provides a range of services to all service areas within the Marine Institute. The role of corporate services is to provide a quality support service that promotes, advises, communicates and assists work across the organisation in a friendly and efficient manner. Corporate services is responsible for finance, human resources, communications, administration and legal services and facilities.</p>	4,470	3,675
<p>National Development Plan</p>	4,000	5,650
<p>Capital expenditure</p>	638	2,223

Bord Iascaigh Mhara/Irish Sea Fisheries Board

BIM is the Irish State agency with responsibility for developing the Irish Sea Fishing and Aquaculture industries. BIM was established under the Sea Fisheries Act 1952.

BIM's mission is "to promote the sustainable development of the Irish seafood industry at sea and ashore and support its diversification in the coastal regions so as to enhance its contribution to employment, income and welfare both regionally and nationally.

The policies and programmes to pursue this mission are determined by the Board of BIM and are set out within the framework of the National Development Plan 2000 – 2006 ("NDP"), EU policies and available resources.

There are three complementary, integrated programmes, which form the core of BIM's support to the sea fisheries sector. The Measures underlying these programmes are mainly provided for in the National Development Plan 2000-2006

BIM provides a range of services including advisory, financial, technical, marketing and training supports to all sectors of the Irish seafood industry. BIM's clients comprise fishermen, fish farmers, processors and all those engaged in marketing Irish seafood.

RESEARCH AND DEVELOPMENT

Marine technical

864

945

The objectives of the Marine Technical Section are to progress development of responsible fishing practices addressing environmental and sustainability issues through technical innovation and technology transfer. The section carries out sustainability-orientated projects, aimed at promoting the use of more selective gear types and protection of key fisheries together with identifying ways to reduce operating costs through diversification into alternative, fuel-efficient fishing methods.

Inshore fisheries

542

635

The primary function of the inshore fisheries section is the implementation of the framework for the management of the major inshore stocks announced by the Minister in 2005. The work involves establishing species advisory groups and drawing up management plans for important inshore fisheries. Monitoring of stocks in support of management and the further development of applied research programmes are funded through the NDP in support of the framework. Additional development projects will be undertaken with the catching and wholesale/distribution sector of industry and will particularly focus on enhancing value and the return to coastal communities.

	€'000	
	2005	2006
<p>Resource development</p> <p>The primary focus of the resource development section work programme will see the further development of mechanisms by which the industry can compete in the marketplace through increased quality. At the core of this strategy is the development of quality schemes for the catching sector that are suitable for integration into the QSP programme. This will enable Irish fishermen to compete at the highest levels of quality and traceability now demanded by the consumer.</p>	384	570
<p>Supporting measures</p> <p>The Supporting Measures Programme of the National Development Plan provides, through 8 targeted schemes, grant aid of €25 million over the lifetime of the National Development Plan. To date some €20.65 million has been awarded to a total of 98 projects.</p> <p>The programme aims to support the conservation of the fisheries resource and preservation of the marine environment on which the entire fishing community depends. This is achieved through quality improvement initiatives to maximize the return from the resource, improved gear technology to reduce the volume of undersized and non-target species taken in traditional fisheries, increased landings of non-quota species and supporting projects investigating the conservation, management and enhancement of fish stocks. These measures will target increasing incomes in the fishing communities by maximizing the return from a sustainable resource.</p>	2,362	3,912
<p>Seafood development centre</p> <p>The seafood development centre (SDC) deals with quality and technological issues relevant to seafood processors. The centre aims to help raise the level of quality expertise and skills within the processing industry and to provide commercially relevant services.</p> <p>The laboratory (as an integrated part of the SDC) works on development projects in co-operation with educational institutions including the country's universities. It liaises with other government agencies, including the Department of the Marine and Natural Resources, other departments, and with semi-state organisations such as the Ashtown Food Centre, on a regular basis. Among its core activities, BIM's laboratory carries out training workshops and company visits in response to specific client enquiries. It will also respond to their requests for analytical services and hygiene auditing and quality system installation. The laboratory's analytical service could be summarised as providing microbiological, nutritional and sensory analysis.</p>	80	80
<p>Planning and Development</p>	47	200

Central and Regional Fisheries Boards

The Central and Regional Fisheries Boards were established in October 1980 under the Fisheries Act, 1980. The Boards act under the aegis of the Minister for the Marine and Natural Resources. Their main functions are the protection, conservation, management and development of Ireland's inland fisheries and sea angling resources, and to this end they operate a general policy for the protection and improvement of inland fisheries, the surveying of sea angling resources and the protection of molluscs. Their activities include surveys, development, management protection and conservation of fisheries; research and experimental work, and management of fish farms and hatcheries.

Seven regional fisheries boards, which were established simultaneously with the central fisheries board, are responsible for fisheries conservation and development in their particular regions. The fisheries boards are financed by a grant-in-aid under the fisheries vote, supplemented in the case of the regional boards by fishery rates, licenses, and anglers' registration fees. For 2005 the grant-in-aid to the Boards is €18.665m for pay, €3.007m for non-pay and €2.069m for prioritised capital programmes. Non-exchequer funding (i.e. current "own resources" generated by the Central and Regional Fisheries Boards) is estimated at €4.353m.

RESEARCH AND DEVELOPMENT

983

1,372

Programme monitoring

This ongoing activity includes assessing the biological potential of freshwater lakes and rivers for fishery development; many of these databases are used to design riverine rehabilitation programmes. Surveys of estuaries and inshore marine areas to locate habitats of popular marine sport fish and surveys of stocks of such fish; evaluating the progress of current development programmes in terms of fish numbers, etc. checking on conditions of fishing waters i.e. measuring trophic/nutrient status and pollution hazards which might threaten the State's investments in fisheries; water sampling and analysis for pollution control and prosecutions.

RTDI

During 2004 the CFB together with a group of university partners (U.U., U.C.D., U.C.C., N.U.I.G.), completed the 3rd year of a project funded by the EPA RTDI programme. The aim of the research project is to develop a model which will relate water quality (based on the EPA Q ratings system) to fish stocks. The overall objective is to develop an effective methodology, which will establish ecosystem quality and which will assist with the monitoring requirements of the Water Framework Directive.

TECHNICAL SERVICES

449

264

TRAINING, EDUCATION AND INFORMATION

1,146

130

National Council for Forest Research and Development (COFORD)

COFORD is the National Council for Forest Research and Development. COFORD manages the forestry RTDI programme of the Productive Sector Operational Programme. Its activities are funded by the Irish government under the National Development Plan, 2000-2006. COFORD's objectives are:

- ▶ to identify research needs and establish priorities in research and development for the forest industry;
- ▶ to co-ordinate forest research activities and channel research towards identifiable economic, environmental and social needs;
- ▶ to foster specialisation and scientific achievement among research institutes, universities and regional technical colleges.

RESEARCH AND DEVELOPMENT

1,323

2,400

COFORD is a member of the European tropical forest research network (ETFRN). The network promotes exchange of information on research and development in tropical forestry. COFORD is also a member of the timber research and development association (TRADA). International collaboration is further enhanced through membership of the European forest institute and IUFRO, the international union of forest research organisations.

Funds transferred to Teagasc, Coillte and the universities to carry out research are accounted for in their respective returns.

TRAINING, EDUCATION AND INFORMATION

9

20

TECHNOLOGY TRANSFER

279

680

Close liaison with industry is essential in the furtherance of COFORD's objectives. Such contact is facilitated through membership of the Irish forestry industry chain. The chain brings together the different sectors of the forest industry for which it acts as a unified voice. Total expenditure allocation for COFORD for 2005 is €2.5m.

Sustainable Energy Ireland

Sustainable Energy Ireland is Ireland's national energy authority. The authority, which was established under the Sustainable Energy Act 2002, has a mission to promote and assist the development of sustainable energy. This encompasses environmentally and economically sustainable production, supply and use of energy, in support of government policy, across all sectors of the economy. Its remit relates mainly to improving energy efficiency, advancing the development and competitive deployment of renewable sources of energy and combined heat and power, and reducing the environmental impact of energy production and use, particularly in respect of greenhouse gas emissions.

The authority is charged with implementing significant aspects of the Green Paper on Sustainable Energy and the National Climate Change Strategy as provided for in the National Development Plan.

Sustainable energy Ireland manages programmes aimed at:

- ▶ assisting deployment of superior energy technologies in each sector as required;
- ▶ raising awareness and providing information, advice and publicity on best practice;
- ▶ stimulating research, development and demonstration;
- ▶ stimulating preparation of necessary standards and codes;
- ▶ publishing statistics and projections on sustainable energy and achievement of targets.

RESEARCH AND DEVELOPMENT

5,771

6,169

Sustainable Energy Ireland's research, development and demonstration (RD&D) programme is designed to assist the development of a least-cost path to CO₂ reduction and sustainable energy in Ireland. It has programmes active in the areas of built environment, industry, renewables, and transport and has three elements:

- ▶ Public good activity
- ▶ Shared cost activity
- ▶ International collaboration on public good activities.

The R&D results will provide guidance to policy makers and private entities on the practical, regulatory, technological and market opportunities to achieve sustainable energy goals.

The House of Tomorrow Programme offers a range of supports to developers towards the construction or refurbishment of a broad portfolio of residential units which demonstrate superior approaches to the design and implementation of energy services and technologies in homes.

TECHNICAL SERVICES

729

850

Alternative energy

This measure aims to encourage the development and deployment of alternative energy sources by addressing a number of infrastructural constraints. Key activities of the organisation are to:

- ▶ Commission studies and reports of a public good nature that will lead to informed development and wider deployment of renewable energy in Ireland;
- ▶ Co-fund renewable energy R&D projects which demonstrate emerging technologies, new applications or innovative market solutions.
- ▶ Stimulate deployment of renewable energy-based heating systems in the residential and SME sectors.

With regard to the further development of CHP and district heating schemes, these will play an important role in improving Ireland's energy efficiency and abating CO2 emissions.

Sustainable Energy Ireland's key actions will be as follows:

- ▶ Identify and remove barriers to development
- ▶ Assist the development of project financing and other market stimulation measures
- ▶ Conduct feasibility studies and implement and monitor demonstrations
- ▶ Fund the wide-scale deployment of fossil fuel and renewable based CHP in industry, commerce and public sectors.

Renewable Energy Information Office

Sustainable Energy Ireland's Renewable Energy Information Office in Bandon Co. Cork is a national service, established to accelerate the development of renewable energy in line with government targets. The office provides independent expert advice on financial, social, environmental and technical issues relating to all renewable energy resources including wind, solar, hydro, geothermal and biomass.

TECHNOLOGY TRANSFER

3,505

3,981

The Public Sector Programme, which through a combination of part funded design studies, co-funded model solutions and externally resourced Energy Management Bureaux aims to improve the energy performance of the public building stock asserting and exemplar role to the commercial and services sectors.

Finally the Low Income Housing Programme addresses the less well off who are living in fuel poverty and whose comfort, cost of living and general well being can be improved through the implementation of energy efficiency measures in their otherwise inefficient homes.

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

6,880

6,338

Sustainable Energy Ireland's programme implementation responsibilities are underpinned by a number of key development, management and operational support functions, summarised below:

- ▶ Policy advice and support;
- ▶ Statistics collection and analysis;
- ▶ Standards and certification;
- ▶ Research, development & demonstration co-ordination;
- ▶ External relations;
- ▶ Marketing communications and information dissemination.
- ▶ Curricular based primary and secondary energy education resources.

Institutional Infrastructure

Sustainable Energy Ireland will continue to work with industry, the public sector and the consumer areas to promote sustainable energy awareness and behaviour.

Further developments in industry will include:

- ▶ Develop the large industry energy network (LIEN) with large enterprises
- ▶ Expand the support networks to include small and medium industry
- ▶ Launch of energy agreements and energy map to bring structured energy management to medium and large industrial energy users
- ▶ Prepare for voluntary agreements with industry
- ▶ Develop energy management competence.

Department of Health and Children

The Department of Health was established under the Ministers and Secretaries Act (Amendment), 1946. The mission of the Department of Health and Children is "in partnership with the providers of health care, and in co-operation with other government departments, statutory and non-statutory bodies, to protect, promote and restore the health and well-being of people by ensuring that health and personal social services are planned, managed and delivered to achieve measurable health and social gain and provide the optimum return on resources invested".

The role of the Department of Health and Children is to support the Minister and the democratic process by:

- ▶ Formulating policy underpinned by an evidence-based approach and providing direction on national health priorities ensuring that quality and value for money are enhanced through the implementation of an evidence-based approach underpinned by monitoring and evaluation.
- ▶ Protecting the interests of patients and consumers and supporting practitioners and professionals to practice to the highest standards by providing a prudent and appropriate regulatory framework.
- ▶ Providing effective stewardship over health resources by demanding accountability for achieving outcomes including financial, managerial and clinical accountability, and by providing the frameworks, including enhanced service planning at national level, to improve the overall governance of the health system.
- ▶ Fulfilling our obligations in relation to EU, WHO, Council of Europe and other international bodies and the continued implementation of the co-operation agenda decided by the North-South ministerial council.

On 1 January 2005 the Health Service Executive (HSE) took over full responsibility for running the country's health and personal social services. This means that from 1 January 2005 all health boards in Ireland were abolished. Up until January 2005, health and personal social services were delivered by ten health boards, located around the country. At present, health and personal social services in Ireland continue to be delivered by what are known as Health Service Executive Areas (i.e. former health boards).

RESEARCH AND DEVELOPMENT

National Cancer Registry Board

1,870

1,947

The National Cancer Registry Board was established in June 1991, under the Health (Corporate Bodies) Act, 1961. Its functions are inter alia, to research and analyse information relating to the incidence and prevalence of cancer and related tumours in Ireland and to promote and facilitate the use of data collected in approved research projects and in the planning and management of services.

Health Promotion Unit:

331

560

The Department's Health Promotion Unit has a dual remit:

- ▶ a policy-formulation function within the Department of Health and Children concerned with strategic planning, priority setting, research and evaluation and the development of a multi-sectoral approach to health issues at national and local level
- ▶ an executive function concerned with the development and implementation of national health promotion campaigns independently or in conjunction with statutory or non statutory agencies.

In developing policy for programmes, the unit has built up an effective and important liaison with the Health Service Executive areas and with national and local voluntary agencies. The unit sponsors a chair in health promotion in University College Galway. The function of this academic department is to engage in multi-disciplinary research and teaching programmes in health promotion.

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

9,848

11,580

Advisory and information services and general support.

Health Research Board

The HRB is a statutory body established by the Minister for Health and Children under the Health (Corporate Bodies) Act 1961 by statutory Instrument 279 of 1986, as amended by subsequent ministerial orders.

The statutory functions of the Board are:

- ▶ to promote, assist, commission or conduct medical research, epidemiological research (at national level), health research, health services research;
- ▶ to liaise and co-operate with other research bodies in Ireland or elsewhere in the promotion, commissioning or conduct of relevant research;
- ▶ to undertake such other cognate functions as the Minister may from time to time determine.

The objectives of the HRB in the period 2002-2006 are

- ▶ to encourage the creation and application of knowledge for health and social gain; the growth of intellectual property and evidence relevant to health and social gain and the emergence of a knowledge based health system, economy and society
- ▶ to be the lead national organisation in relation to support for and co-ordination of, scientific research for health and social gain, including basic and translational research, health services research, population health and practice based research and to promote the highest ethical standards in research and good research practice
- ▶ to promote the growth of a value added research and development capability in the health system, in partnership with other relevant health organisations
- ▶ to impact on health and social policy and services through high quality research and information
- ▶ to be the main advocate for the development of research for health and social gain
- ▶ to make the HRB an employer of choice in its field.

RESEARCH AND DEVELOPMENT

Research funding and policy

21,036

36,911

The research funding and policy division contributes to enhanced health and social gain by focusing on the 'science for health' function detailed in Making Knowledge Work for Health. The work of the division supports the first two objectives of the HRB described in the corporate strategy for 2002-2006:

Support is provided for projects, programmes and fellowships in health research through a process of open competition and peer review. The division has an evaluation function, focussing on the outputs and outcomes of HRB funded research, and maintains a large database of research funded by the Board. The division also contributes to the strategic development of health research in Ireland by liaising with national and international funding agencies on areas of common interest and representing the Board on relevant working groups and task forces.

Drug misuse research:

2005	2006
------	------

780	934
-----	-----

The drug misuse research division (DMRD) is involved in national and international research, and information gathering and dissemination activities in relation to drugs and their misuse. At a national level the DMRD oversees the maintenance and development of a national epidemiological database on treated drug misuse in Ireland - the national drug treatment reporting system (NDTRS). The DMRD has also been designated in national drug strategy 2001-2008 as the central point to which all research data and information should be channelled. In order to deliver on this role, the DMRD has established a national documentation centre on drug use which policy-makers, researchers, the media, and the general public can use to access all relevant and up-to-date information and research in the field of drug use in Ireland.

At a European level the DMRD is the designated Irish focal point for the European information network on drugs and drug addiction (REITOX) network of the European monitoring centre for drugs and drug addiction (EMCDDA).

Child health epidemiology:

140	254
-----	-----

The Child health epidemiology division of the health research board is involved in epidemiological research, mainly in the field of pregnancy and child health. The main focus of the current research programme of the division is on the aetiology and primary prevention of neural tube defects and other congenital malformations.

TECHNICAL SERVICES**Disability databases:**

1,997	2,555
-------	-------

The disability databases division in the Health Research Board manages two national service-planning databases for people with disabilities. Established in 1995, the national intellectual disability database (NIDD) provides a comprehensive and accurate information base for decision-making in relation to the planning, funding, and management of services for people with intellectual disability. The national physical and sensory disability database (NPSDD) is currently being implemented nationwide. The role of the disability databases division is to ensure that relevant and accurate information is available to enable the Department of Health and Children, the health boards and the voluntary sector to provide appropriate services designed to meet the changing needs of people with intellectual, physical or sensory disabilities.

Postgraduate Medical and Dental Board

The Postgraduate Medical and Dental Board was established in 1980 under the terms of the Medical Practitioners Act, 1978. It replaced the former non-statutory Council for Postgraduate Medical and Dental Education and Training (established in 1973).

The board has the following functions:

- ▶ To promote the development of postgraduate medical and dental education and training and to co-ordinate such developments;
- ▶ to advise the Minister for Health, after consultation with other bodies, on all matters, including financial matters, relating to the development and co-ordination of postgraduate medical and dental education and training;
- ▶ to provide career guidance for registered medical practitioners and registered dentists.

The Minister for Health, out of monies provided by the Oireachtas, makes annual grants towards expenses of the Board; the grant for 2005 is estimated as €8.88m. The staff numbers 5 whole-time officers who are supplemented by 63 part-time professional staff. Expenditure data includes general overheads which amount to 4.58% of the figures given for 2005.

TRAINING, EDUCATION AND INFORMATION

Grants to Training Bodies	3,634	3,564
Pilot Studies	2,335	2,290

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

	1,197	1,174
--	-------	-------

Food Safety Authority Ireland (FSAI)

RESEARCH AND DEVELOPMENT

2,025

1,308

GM food tests

FSAI carried out a general sampling and analysis of foods containing soy and maize ingredients that carried labels indicating that no GM ingredients are present. Labels such as "GM free", "contains no GM ingredients" etc. are legitimate on such foods only when no GM ingredients are present. GM testing of food on the Irish market in 2005 will revert to a general examination of maize and soya containing foods to determine what GM ingredients are on sale in Ireland and at what level.

Research into the intake of key food additives by the Irish population

In addition to the total diet study described below, FSAI carried out in 2004, a study into levels of nitrates, nitrites and sulphites in key foodstuffs in which these additives are permitted (notably meat and meat products). The results will be used to (a) monitor usage of these additives by Irish industry and industry supplying to the Irish market and (b) determine the intake of the additives by the Irish population via these foodstuffs.

Total diet study

Over 100 foodstuffs most commonly consumed by the Irish public have been analysed for a range of contaminants and food additives, including pesticides, heavy metals, mycotoxins, polycyclic aromatic hydrocarbons, acrylamide, nitrite, nitrate and sulphite, and certain elements including sodium and iodine. The purpose of this study is to assess the exposure and intake of the Irish population to these chemicals from food and to compare intakes with the tolerable daily intakes (or Acceptable Daily Intakes in the case of food additives such as sulphites).

Study of verocytotoxigenic E. coli (VTEC) in raw milk supplies to raw milk cheese manufacturers

FSAI funded a study in 2004 carried out by Cork County Council veterinary service under Jim Buckley. The researchers identified dairy herds in Cork supplying unpasteurised milk to cheese manufacturers who were making raw milk cheese. The study targeted VTEC in the milk by isolating the bacterium on in-line milk filters used in the milking parlour. Isolates of the pathogen were subjected to molecular biological techniques to examine their virulence and potential pathogenicity.

In 2005 the previous study on VTEC has been extended to cover all known pathogenic bacteria in raw milk supplied to raw milk cheese manufacturers. This will build on previous work and complete a robust dataset on the hazards associated with raw milk that should prove invaluable for the raw milk cheese manufacturers and the enforcement authorities alike.

TECHNICAL SERVICES

567

618

Irradiated herbal supplements tests

The FSAI is completing a follow up survey on herbal dietary supplements to determine the levels of irradiated products on the Irish market without appropriate labelling. This will inform the FSAI as to the efficacy of the efforts of the health food industry in addressing this problem with their suppliers.

Surveillance of dioxins and PCBs in foodstuffs

In 2004, FSAI completed a surveillance study of levels of PCDDs/PCDFs, dioxin-like PCBs and certain non-dioxin-like PCBs in Irish beef, pork, lamb and poultry, liver, oils and fats including yoghurt, butter and cheese, and in some samples of fruit and vegetables.

Surveillance of infant food and formula for the presence of pesticide residues

The study of pesticides in baby food on the Irish market initiated in 2003 was completed and reported in 2004. The results of the study show good compliance with the existing legislation on pesticide residues in baby food or legislation that will come into force in March 2005. This study was repeated in 2005.

Surveillance of fish on the Irish market for the presence of methylmercury and arsenic species

In 2005, FSAI will undertake a study to determine levels of methylmercury in fish on the Irish market since no national data are available on this. The study will also determine levels of organic and inorganic arsenic in the same fish species, given concerns about the hazards to health of inorganic arsenic in particular.

Department of Arts, Sports and Tourism: Natural History Museum

The Natural History Museum originated as one of the many activities initiated by the Royal Dublin Society in furtherance of its aims of fostering the useful arts and science in Ireland. The nucleus of the museum was formed by the purchase in 1792 of the Leskean collection of minerals and insects aided by a grant from Parliament. Under the Dublin Science and Art Museum Act, 1877, responsibility for the Museum was undertaken by the State and the National Museum founded with staff of the Natural History Museum transferred to the Natural History Division of the National Museum. In 1924, the Department of Education took responsibility for the National Museum and in 1982 it was transferred to the Department of the Taoiseach. In 1993 its functions were transferred to the new Department of Arts, Culture and the Gaeltacht. In 2002 it was transferred to the Department of Arts, Sport and Tourism. In May 2005 the National Museum of Ireland was established as a non-commercial semi-state body under the terms of the National Cultural Institutions Act, 1997.

The functions of the natural history division of the National Museum include: the provision of public exhibitions, the dissemination of information to the public on zoological, entomological and geological material, and the curation of the collections. There are 10,000 specimens on exhibition and approximately two million specimens in the research collection.

Programme funding for the Natural History Museum is a non-fixed proportion of the budget for the National Museum of Ireland, which is received from the Department of Arts, Sport and Tourism.

RESEARCH AND DEVELOPMENT

Curation of collection	220	270
Fieldwork and foreign travel	9	10
Research support fund	11	30

TRAINING, EDUCATION AND INFORMATION

Training of staff	1	1
-------------------	---	---

OTHER SCIENCE AND TECHNOLOGY ACTIVITIES

Purchase of specimens	21	60
-----------------------	----	----

Department of the Taoiseach: National Economic and Social Council (NESC)

The Council was established by Government in November 1973. Its members, include representatives from employer associations, trade unions, agricultural groups and the community and voluntary organisations, plus a number of independent members nominated by Government.

The function of the Council is to analyse and report to the Taoiseach on strategic issues relating to the efficient development of the economy and the achievement of social justice and the development of a strategic framework for the conduct of relations and the negotiation of agreements between the Government and the social partners. Council reports are submitted to the Government, laid before each house of the Oireachtas and published.

The NESC is financed by grant-in-aid from the Department of the Taoiseach and by income from the sale of publications. It employs a total of 7 staff, consultants are frequently employed to assist in the preparation of specific research reports. The NESC conducts studies on a wide range of relevant topics in the areas of economic and social policy.

RESEARCH AND DEVELOPMENT

792

864

Areas researched include: review of industrial policy; farm incomes; social planning; housing requirements and population change; health and energy policy; economic and social policy assessment; manpower policy; welfare policy and social protection.

Since the mid-1980s, the council has published a series of strategy reports which have identified inter-related policy measures which are appropriate to our situation: A Strategy for Development 1986-1990 (1986); A Strategy for the Nineties: Economic Stability and Structural Change (1990); A Strategy for Competitiveness, Growth and Employment (1993) and Strategy into the 21st Century (1996); Opportunities, Challenges and Capacities for Choice (1999); and An Investment in Quality: Services, Inclusion and Enterprise (2003); and NESC Strategy 2006: People, Productivity and Purpose.

These reports provided the framework for negotiation of the national agreements between government and the social partners over the past decade.

In late 2004, the Council published a report on housing entitled Housing in Ireland: Performance and Policy. In May 2005, the Council published a major review of Ireland's system of social protection, The Developmental Welfare State.

Department of Finance: Economic and Social Research Institute (ESRI)

The Irish Economic and Social Research Institute (ESRI) is a not-for-profit organisation which was founded in 1960 as the Economic Research Institute. In 1966 the Institute assumed responsibility for social research and extended its title to the Economic and Social Research Institute. The ESRI is a company limited by guarantee with no share capital. It is a not for profit organisation and holds charitable status.

ESRI research has been a vital constituent in the national debate on economic and social issues over the past 40 years. The ESRI's mission is to produce high quality research, relevant to Ireland's economic and social development, with the aim of informing policy-making and societal understanding.

Current research is in the areas of demography, education, health, housing, industrial development, labour market, macroeconomics, social capital, social disadvantage, regional studies, resource economics, social insurance & pensions and tax & welfare. Institute research staff undertake commissioned studies, surveys and data analysis on behalf of a wide range of Irish and international organisations. The Institute operates a Survey Unit to collect primary data and manages the Hospital In-patient Enquiry (HIPE) and the National Perinatal Reporting System (NPRS) for the Department of Health and Children.

The Institute employs 38 research staff. The Survey Unit and HIPE/NPRS Unit employ 14 and 19 technical, coding and data-entry staff respectively. There are 26 management and administrative staff providing information and support services.

RESEARCH AND DEVELOPMENT

5,229

5,935

During 2005 the Institute undertook research projects in demography, education, health, housing, industrial development, labour market, macroeconomics, social capital, social disadvantage, sport, regional studies, resource economics, social insurance & pensions and tax & welfare.

Income from commissioned research was €2,829,780 in 2005 and is estimated at €3,207,000 for 2006. Income from membership fees amounted to €138,887 in 2005 and is estimated at €140,000 for 2006.

TECHNICAL & INFORMATION SERVICES

4,496

5,845

The survey unit carries out surveys, including fieldwork, and processes data for research staff and outside bodies. Over twenty major surveys (ranging from 1,000 to 12,000 interviews per survey) are undertaken each year by ESRI's panel of interviewers. In 2006 work will commence on the National Longitudinal Study of Children in Ireland on behalf of the Office of the Minister for Children and the Department of Social and Family Affairs. The ESRI library, which is open to the public, is a research library developed to support the research effort of the institute. The library is particularly strong in the major national and international

journals and periodicals covering the main research disciplines in the institute. The institute devotes considerable effort to publishing the results of its research in books, periodicals and journals.

Fees from commissioned surveys, data collection and technical services amounted to €3,619,120 in 2005. The estimate for 2006 is €5,223,900. Sales of publications amounted to €53,231 in 2005 and are estimated at €55,000 for 2006.

Central Statistics Office

The Central Statistics Office is responsible for the collection, processing and dissemination of official statistics. The statutory basis for this role is provided by the Statistics Act, 1993. This Act constituted the Central Statistics Office as an independent office under the aegis of the Taoiseach. The CSO's basic mandate, under the Act, is the collection, compilation, extraction and dissemination for statistical purposes of information relating to economic, social and general activities and conditions in the State. The Act also underpins the CSO's role in co-ordinating the statistics produced by other public bodies.

The National Statistics Board has the function of guiding the strategic direction of the CSO and of establishing priorities in responding to the demand for official statistics. The Board's Strategy for Statistics 2003-2008 was published in 2003 and sets out a framework for the development of official statistics to support decision-making by government and by society in general, with an increased emphasis on the effective statistical use of administrative records.

This is also reflected in the CSO Statement for Strategy 2004-2006. Over the course of the three-year strategy, the CSO has established new units to work on data integration in the areas of social, business and government statistics. These units are working actively with other Departments and agencies to identify their data needs and to help realise the statistical potential of administrative records.

The CSO's activities are funded by a general vote of the Oireachtas. There are also contributions from the EU for particular surveys. Net expenditure in 2005 amounted to €44.415m. The 2006 net allocation is €84.761m. The number of staff provided for in the CSO's 2006 Vote is 904. This includes permanent household survey field staff who collect statistics in the Quarterly National Household Survey and the EU Survey of Income and Living Conditions.

TECHNICAL SERVICES

46,578

85,456

Central services/administration

Net expenditure on central services, which includes senior management, administration, research and development and information technology amounted to 27% in 2005 and is estimated at 19% in 2006. The decrease in the percentage share of central services reflects higher total expenditure in 2006 due to the Census of Population.

In both 2005 and 2006, the figures include a major ongoing IT investment programme, to provide an updated processing framework for over 100 surveys. The design of this new IT framework will incorporate the capability to cater for additional new statistical requirements and the project is scheduled for completion early in 2007.

Central Bank

The Central Bank of Ireland, which came into being in 1943, was re-structured and re-named as the Central Bank and Financial Services Authority of Ireland (CBFSAI) on 1 May 2003. This body carries out all of the activities formerly carried out by the Central Bank of Ireland and additional regulatory and consumer protection functions for the financial services sector. The CBFSAI has two component entities:

- ▶ the Central Bank, which has responsibility for monetary policy functions, financial stability, economic analysis, currency and payment systems, investment of foreign and domestic assets and the provision of central services; and
- ▶ the Irish Financial Services Regulatory Authority (Financial Regulator), which is an autonomous entity within the CBFSAI and has responsibility for financial sector regulation and consumer protection.

The Central Bank became part of the Economic and Monetary Union (EMU) in Europe in 1999 along with ten (now eleven) other national central banks. These twelve national central banks together with the European Central Bank (ECB), form the Eurosystem. The primary objective of the Eurosystem is to maintain price stability in the euro area. This is the most effective means by which Eurosystem monetary policy can support economic growth in the national economies of the member states.

As a member of the Eurosystem, the Central Bank's main responsibilities include:

- ▶ Contributing to the maintenance of price stability (low inflation) and a stable financial system
- ▶ Ensuring safe and reliable payment and settlement systems, to enable firms and individuals to make payments to each other
- ▶ Producing and distributing euro banknotes and coins and ensuring the security and integrity of the euro currency
- ▶ Managing foreign exchange assets, on behalf of the European Central Bank.

Furthermore we are responsible for:

- ▶ Providing advice and guidance on Irish economic policies
- ▶ Serving the public interest

RESEARCH AND DEVELOPMENT

670

968

The bank continued to monitor, analyse and project short-term developments in the Irish and euro-area economies during 2005. It also conducted research into longer-term structural issues. The bank co-operated with other Eurosystem national central banks and the ECB in these areas through its participation in ESCB committees and working groups. This work assisted the governor of the bank and other members of the ECB governing council in formulating policy during 2004.

The bank also assessed macroeconomic conditions and considered policy issues in a domestic context, with a view to supporting policies aimed at maintaining low inflation and sustaining long-term growth in the Irish economy.

Main areas of economic research include:

Economic intelligence and forecasting

Inflation and competitiveness

Monetary issues

Econometric modelling

Public finances

Structural issues

Office of Public Works (OPW)

The Office of Public Works provides services to government departments and other agencies in the areas of property management, building construction, engineering construction, building maintenance and conservation and restoration of buildings.

OPW employs specialist staff in all aspects of architecture, engineering, valuation, quantity surveying and related disciplines. In-house resources are supplemented as required by contracting of services from private sector companies.

Over 90% of construction, maintenance and conservation work is contracted from the private sector.

Total staff employed at the end of 2005 was 2,044. The Office manages voted expenditure of approx. €580m per annum.

In the course of their work, OPW's professional staff carry out research and development of new building methodologies (including environmentally friendly techniques), hydraulic and hydrological research and development and specialist conservation and restoration techniques.

RESEARCH AND DEVELOPMENT (CAPITAL EXPENDITURE)

Grange EU vet agency	1	0
Coosan veterinary laboratory phase	8	10
Tipperary agriculture offices	40	0
Dept. of agriculture laboratory	12,890	2,500
Longtown farm	42	1,000
Drumshambo veterinary	4	200
State Laboratory	3,174	1,000
Marine Institute Galway	19,571	5,000

The State Laboratory

The State Laboratory is an independent office under the aegis of the Department of Finance. It was established in 1924 following the merger of the revenue laboratory and the chemical laboratory of the Department of Agriculture and Food.

Its main function is the provision of an analytical and advisory service to government departments and offices. The bulk of its work is statutory in nature and the main areas of analytical activity are in the revenue, agricultural and environmental arenas. Its analytical results and advice are used for the purposes of: litigation and advice; the implementation and formulation of legislation; and assessing the potential requirements for future national and/or EU legislation. The laboratory is represented by its staff on national, European (EU) and international committees. It participates at both EU and international levels in the collaborative testing of analytical methods.

The bulk of State Laboratory funding comes directly from the exchequer. The State Laboratory employs a total of 97 permanent staff, of whom 80 (including the State Chemist) are directly involved in science and technology activities; the remainder are in administration and support services.

TECHNICAL SERVICES

11,634

8,490

Agriculture (inorganic)

Fertilisers are analysed on behalf of the Department of Agriculture and Food to ascertain compliance with both EU and national legislation.

Environment/special services

The environmental area embraces most government departments and samples are analysed for compliance with the Safety Health and Welfare at Work Act. Hydrocarbon oils are analysed for lead, sulphur and benzene levels. This area is also involved with the Department of Agriculture and Food and analyses samples seized in accordance with the Animal Remedies Act as well as cultural artefacts and building materials.

Animal feedstuffs

Animal feedingstuffs are analysed for nutrients, growth promoters, and antibiotics, also for minerals, trace elements and heavy metals. Veterinary medical products are assayed for compliance with various legislative prescripts.

Microbiology/GMO

Microbiological techniques are employed to detect selected plant diseases. Seeds for planting and foodstuffs are assayed to detect the presence of genetically modified organisms.

Technical administration

This is a newly created area whose purpose is to compile a directory of government laboratory services and to advise the Laboratory on the introduction of novel analytical techniques.

Residue/contaminants

The primary activity of this section is in the analysis of feed and food for the presence of residues and contaminants. Current emphasis is on the quantification of Aflatoxin and other selected micotoxins. This section, in addition monitors, vegetables for nitrate content.

Revenue (alcohol and oils)

This section monitors the percentage of alcohol in wines and spirits. Techniques employed include; distillation; SCABA beer analyser and gas chromatography.

Excise duties and rebates of duties are laid down in the various Finance Acts. In order to accurately determine the revenue accruing to the State and to prevent the illegal use of rebated products, it is necessary to analyse and characterise hydrocarbon oils. Techniques employed include; UV; gas chromatography and HPLC.

Customs/CAP

The Common Customs Tariff (CCT) determines the duty payable on imported goods and chemical analysis enables the Revenue Commissioners to classify goods for this purpose. Samples are diverse in nature ranging from pure chemicals to plastics to processed products like food. The analyst relies heavily on instrumental techniques such as chromatography and spectroscopy. Samples are also analysed in accordance with the prescripts of the Common Agricultural Policy of the EU.

Toxicology - human

Analysis is carried out on post mortem biological tissues and fluids of human origin in order to ascertain the cause of sudden or unexplained deaths.

Toxicology - veterinary

Biological tissues of veterinary origin are assayed for a variety of reasons. The analyses in question are normally present at residue levels and confirmation techniques add to the analysis time.

Quality control and accreditation

In recognition of the importance of ensuring a high standard of quality control throughout the Laboratory, and of ensuring that the Laboratory is accredited by the Irish Laboratory Accreditation Board, a Senior Chemist has been appointed to oversee these activities throughout the Laboratory.

Tobacco analysis

The State Laboratory has been requested by the Office of Tobacco Control to analyse samples and advise on analytical and toxicological issues related to tobacco analysis. Cigarettes are smoked on a smoking machine under conditions of temperature and humidity laid down in ISO standards with analysis carried out to ascertain tar, nicotine and carbon monoxide content.

TRAINING, EDUCATION AND INFORMATION

147

200

Ordnance Survey Ireland (OSI)

Ordnance Survey Ireland (OSI) was set up as a statutory state agency under its own Act on 4th March 2002, under the responsibility of the Minister for Finance. OSI is headed by a Director who is responsible for the overall management of the organisation.

Ordnance Survey Ireland is the national mapping agency. Its main function is to provide the definitive topographic mapping databases of the country. It therefore creates and maintains a number of mapping datasets which underpin many of the administrative, legal, infrastructural, security and business functions of the State. OSI also provides topographic information for many organisations in the private sector. Development at OSI is geared towards the future needs of the information society.

Ordnance Survey Ireland employs 311 of whom 275 are directly involved in technical mapping activities, with the remainder in administration and support activities.

TECHNICAL SERVICES

The programme includes revision of rural and urban databases, and creation from aerial photography of a new rural large-scale database. Data is provided in both digital and paper form. Currently urban data is updated on an annual cycle.

€20,657,000 was received from the sale of products and services in 2004, while the figure for 2005 is expected to be €18,400,000.

There are 275 staff involved in this activity.

31,973

28,895

