

## Appendix 1

### Methodology

The information given in this document relates to 41 institutions in receipt of monies from the exchequer for the performance or support of scientific, technological and related activities in every field and is based on the information supplied by these institutions. In general, institutions and information relating to them are listed separately. In a few cases an institution is listed with its parent department or organisation but identified separately. Where practicable the programmes of the various institutions have been separated and categorised in accordance with international practice into relevant scientific activities i.e.:

- Research and development (R&D);
- S&T technical services;
- S&T training, education and information;
- S&T technology transfer; and
- Other S&T activities.

Expenditure data for specific programmes refer to the 2006 outturn costs of programmes and to the expected costs in 2007. The outturn costs are mainly funded by matching grant-in-aid or voted monies. Where programmes are funded in other ways these monies are noted separately. In these instances the expenditure (cost) data shown includes both exchequer and other income contributions.

Expenditures are based on unaudited figures, except in a few cases where they are identical with a vote by the Oireachtas. For convenience, general overheads, where shown, are distributed in proportion to programme expenditures. Programmes are attributed to the institution most directly involved - that is to those actually operating them, but not necessarily funding them. An example of the latter is the Department of Enterprise, Trade and Employment, which funds, but does not operate or manage many programmes. Only their own administrative costs are attributed to the funding institutions in such cases.

Apportionment problems arise in the third level sector, mainly from the monies distributed by the Higher Education Authority and the Department of Education and Science to the institutes of technology. In the case of the HEA, total funds are first apportioned between S&T faculties and non-S&T faculties in the colleges (expenditure on non-S&T faculties is not included in this document). The extent and cost of the R&D work undertaken in colleges and funded out of the HEA's general block grant, is determined indirectly from surveys of academic staff in colleges. These surveys are carried out by Forfás on a multi-annual basis and the corresponding cost data are, of necessity, based on historical estimates. The HEA funding of academic departments was isolated from administration and support services within colleges.

## Appendix 2

### Government departments and agencies included in the 2007 Science Budget

The Science Budget records expenditure on S&T in the government sector. This includes:

- government departments
- associated government agencies
- government offices

Table 1 below lists the 41 government departments, agencies and offices included in the 2006/2007 Science Budget.

Table 1: Government departments/agencies and offices funding S&T activities, 2007

Government Departments	Associated Agencies
Dept. of Agriculture and Food	Teagasc
Dept of Arts, Sport and Tourism	
Dept. of Communications, Energy and Natural Resources	Bord Iascaigh Mhara
	Central and Regional Fisheries Boards
	COFORD
	Marine Institute
	Sustainable Energy Ireland
Dept. of Community, Rural and Gaeltacht Affairs	Údarás na Gaeltachta
Dept. of Education and Science	Dublin Institute for Advanced Studies
	Higher Education Authority
	Irish Research Council for Humanities and Social Sciences
	Irish Research Council for Science, Engineering and Technology
Dept. of Enterprise, Trade and Employment	Enterprise Ireland
	FÁS
	Forfás
	IDA Ireland
	InterTradeIreland
	Science Foundation Ireland
	Shannon Development
Dept. of the Environment, Heritage and Local Government	Environmental Protection Agency
	Met Éireann
	Radiological Protection Institute of Ireland
Dept. of Finance	Economic and Social Research Institute
Dept. of Health and Children	Food Safety Authority

	Health Research Board
	Postgraduate Medical and Dental Board
Dept. of Social and Family Affairs	
Dept. of the Taoiseach	National Economic and Social Council
Dept. of Transport	National Roads Authority
<b>Offices</b> Central Bank Central Statistics Office Office of Public Works Ordnance Survey Ireland State Laboratory	

## Appendix 3

### Definitions of R&D and S&T Activities

For the purpose of this survey science and technology comprises the five categories below:

#### 1. Research and development:

- **Research:** Original, experimental or theoretical investigations undertaken to acquire new knowledge, with or without a particular application or use in view.
- **Development:** Systematic work drawing on existing knowledge gained from research and/or practical experience, that is directed to producing new products, processes, systems, services, varieties and breeds and to improving substantially already existing ones. Data collection conducted solely or primarily as part of the research and development (R&D) process included under "research" or "development" as appropriate.

#### 2. Technical services:

- Specialised support services of a scientific or technical nature generally provided by centralised laboratories or facilities and can be of a routine or non-routine nature. Essentially they comprise the technical back-up analytical, diagnostic and data collection/processing services.

#### 3. Training, education and information:

- **Training and education:** Education and training of third level or equivalent students in science and technology disciplines.
- **Information:** Provision of information via **formalised scientific and technical information and documentation (STID) services** includes all expenditure (manpower and materials) involved in acquiring, controlling or transmitting information to users with the involvement of staff whose primary function is in formalised STID services e.g. provision of S&T information, advice, liaison, specialist advice, information analysis, libraries, publications and documentation services, translations, technical seminars and conferences. Provision of information via **non-formalised STID services** includes expenditure on providing know how and expertise by members of staff who, while not specifically engaged in formalised STID services, provide specialist advice, liaison, consultancy or other general information services.

#### 4. Technology transfer:

- Activities which are directed solely or primarily towards the transfer and adoption of new technology, generally in enterprises. The horizontal transfer of technology, primarily from abroad, but also from colleges to enterprises is included here.

## 5. Other S&T activities:

- Activities which cannot be conveniently grouped under the above headings can be included here e.g. grants to international organisations, policy planning units etc.

### Other Definitions:

1. **Public funds** = Exchequer + EU funds
2. **GBAORD** = Government Budget Appropriations or Outlays on R&D  
(Public funds) + (funds for the Social Sciences and Humanities (HEA))

## Appendix 4

### Acronyms

AAGR	Average Annual Growth Rate
BERD	Business Expenditure on R&D
BIM	Bord Iascaigh Mhara - The Irish Sea Fisheries Board
CRFB	Central and Regional Fisheries Boards
COFORD	National Council for Forest Research and Development
CSF	Community Support Framework
CSO	Central Statistics Office
DIAS	Dublin Institute for Advanced Studies
EPA	Environmental Protection Agency
ESRI	Economic and Social Research Institute
FÁS	Foras Áiseanna Saothair - National Training and Employment Authority
FSAI	Food Safety Authority Ireland
FTE	Full Time Equivalent
GBAORD	Government Budget Appropriations and Outlays on R&D
GERD	Gross Expenditure on R&D
GOVERD	Government Expenditure on R&D
HEA	Higher Education Authority
HERD	Higher Education Expenditure on R&D
HC	Head Count
HRB	Health Research Board
IRCHSS	Irish Research Council for the Humanities and Social Sciences
IRCSET	Irish Research Council for Science, Engineering and Technology
NESC	National Economic and Social Council
NRA	National Roads Authority
OPW	Office of Public Works
OSI	Ordnance Survey Ireland
OST	Office of Science and Technology - Department of Enterprise, Trade and Employment
PGM&DB	Postgraduate Medical and Dental Board
RPII	Radiological Protection Institute of Ireland
SEI	Sustainable Energy Ireland
SFI	Science Foundation Ireland

## Appendix 5

### International tables

Table 2: International comparison of GOVERD as a percentage of GDP, 2002 and 2007

Country	2002	Rank	2007	Rank
Australia	0.32	7	0.28	8
Austria	0.12	22	0.12	20
Belgium	0.14	21	0.14	19
Canada	0.22	15	0.17	17
China	0.31	8	0.29	7
Chinese Taipei	0.55	2	0.53	2
Czech Republic	0.28	10	0.27	9
Denmark	0.18	17	0.18	16
EU-15	0.24	14	0.24	11
EU-25	0.24	14	0.24	11
EU-27	0.24	14	0.24	11
Finland	0.35	4	0.32	6
France	0.37	3	0.37	3
Germany	0.34	5	0.34	5
Hungary	0.33	6	0.26	10
Iceland	0.73	1	0.66	1
<b>Ireland</b>	<b>0.12</b>	<b>22</b>	<b>0.09</b>	<b>22</b>
Israel	0.25	13	0.23	12
Italy	0.20	16	0.20	14
Japan	0.30	9	0.28	8
Korea	0.34	5	0.36	4
Luxembourg	0.16	19	0.19	15
Mexico	0.11	23	0.11	21
Netherlands	0.24	14	0.24	11
Norway	0.26	12	0.24	11
Poland	0.25	13	0.21	13
Portugal	0.14	21	0.11	21
Romania	0.09	24	0.14	19
Russian Federation	0.31	8	0.28	8
Singapore	0.28	10	0.23	12
Slovak Republic	0.15	20	0.15	18
Slovenia	0.35	4	0.23	12
Spain	0.15	20	0.19	15
Switzerland	0.03	26	0.03	24
<b>Total OECD</b>	<b>0.27</b>	<b>11</b>	<b>0.27</b>	<b>9</b>
Turkey	0.05	25	0.05	23
United Kingdom	0.17	18	0.19	15
United States	0.32	7	0.29	7

Table 3: Government sector: Female researchers as a percentage of total researchers (headcount)

Country	%	Rank
Portugal	57.9	1
Romania	56.0	2
Slovenia	48.0	3
Argentina	47.0	4
Spain	45.5	5
Russian Federation	45.0	6
Iceland	43.0	7
Slovak Republic	43.0	8
Finland	42.0	9
Italy	40.4	10
Poland	40.0	11
Ireland	39.0	12
Greece	38.9	13
Hungary	38.0	14
Norway	37.0	15
Sweden	36.4	16
Austria	36.2	17
Czech Republic	36.0	18
Denmark	35.5	19
<b>Ireland</b>	<b>35.0</b>	<b>20</b>
Singapore	33.0	21
United Kingdom	32.9	22
France	32.7	23
Belgium	30.1	24
Mexico	29.9	25
Netherlands	29.0	26
Turkey	28.6	27
Germany	28.5	28
Luxembourg	28.5	29
Switzerland	25.5	30
Chinese Taipei	20.0	31
Japan	13.0	32
Korea	11.0	33



## Appendix 6 - Questionnaire

Expenditure ALLOCATED to Science & Technology and Research & Development in 2007

Agency Name:

Section 1: Science & Technology - Total Expenditure (incl. government and non-government funding) (€'000)													
Total S&T programmes (€'000)	Total research & development (insert details in section 2 below) (€'000)		Total technical services (€'000)		Total training, education & information (€'000)		Total technology transfer (€'000)		Total of other S&T activities (€'000)		Total current expenditure (€'000)	Total capital expenditure (€'000)	Gross S&T expenditure (current + capital) (€'000)
	Definition		Definition		Definition		Definition		Definition				
	Current Expend.	Capital Expend.	Current Expend.	Capital Expend.	Current Expend.	Capital Expend.	Current Expend.	Capital Expend.	Current Expend.	Capital Expend.			
											0	0	0

Section 2: Research and Development - Detailed Expenditure (€'000)														
Government funded expenditure on R&D ONLY				Non-Irish government funded expenditure on R&D ONLY								Region in which R&D programme was performed		
R&D programmes - performed in-house:	Current expenditure (€'000)	Capital expenditure (€'000)	Total (€'000)	Irish industry (€'000)		Foreign industry (€'000)		Private individuals (€'000)		EU public funding (€'000)		Total (€'000)		Code
				Current expend.	Capital expend.	Current expend.	Capital expend.	Current expend.	Capital expend.	Current expend.	Capital expend.	Current expend.	Capital expend.	
1			0									0	0	
2			0									0	0	
3			0									0	0	
4			0									0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
R&D programmes - performed elsewhere (state organisation)	Current expenditure (€'000)	Capital expenditure (€'000)	Total (€'000)	Irish industry (€'000)		Foreign industry (€'000)		Private individuals (€'000)		EU public funding (€'000)		Total (€'000)		Code
				Current expend.	Capital expend.	Current expend.	Capital expend.	Current expend.	Capital expend.	Current expend.	Capital expend.	Current expend.	Capital expend.	
1			0									0	0	
2			0									0	0	
3			0									0	0	
4			0									0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	

## Expenditure ALLOCATED to Science & Technology and Research & Development in 2007

Agency Name:

### Section 3: Science and Technology funding RECEIVED from other government departments or other agencies

(Please note that this section is only applicable if S&T funding has been received from other government departments or other agencies)

Details of funding received from other government departments or other agencies:

Programme name	Name of government department or agency funding was received from	Amount of funding (€'000)

### Section 4: Type of Research & Development Activity Undertaken In-house

Please indicate the percentage breakdown of total in-house R&D expenditure in terms of the following categories as defined below:

<a href="#">Basic Research</a>	%
<a href="#">Applied Research</a>	%
<a href="#">Experimental Development</a>	%
	100%

### Section 5: In-house Personnel Devoted to Research & Development Within your Organisation [Headcount and Research Time Use (%)]

Please note that this section refers only to personnel involved in R&D within your organisation. Any other personal need not be recorded here.

R&D personnel by programme	Researchers						Technicians			Other Staff			Total				
	With PhD		Without PhD				Headcount		Time Use (%)	Headcount		Time Use (%)	Headcount		Time Use (%)		
	Male	Female	Male	Female	Male	Female	All	Male	Female	All	Male	Female	All				
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



## State Expenditure on Science & Technology 2006 and 2007

### Appendix 7: Government Departments and Agencies' Programmes

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## Department of Agriculture and Food



THE DEPARTMENT OF  
**AGRICULTURE, FISHERIES & FOOD**  
AN ROINN TALMHAÍOCHTA, IASCAIGH AGUS BIA

	€'000 2006	€'000 2007
<p>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.</p> <p>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.</p> <p>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:</p> <p><b>RESEARCH AND DEVELOPMENT</b></p> <p><b>Improvement of Crops</b> 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.</p> <p><b>R&amp;D-Related Veterinary and Meat Laboratory Activities</b> Operation of a central veterinary research laboratory at White Cross, Backweston, Co. Kildare, regional veterinary research laboratories at Cork, Limerick, Sligo, Athlone and a testing laboratory in Waterford.</p> <p><b>Institutional Food Research</b> 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 and 2007 - 2013, 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 2007 due to additional calls for funding and sustaining existing projects.</p> <p><b>Agricultural Production Research</b> This is the "Research Stimulus Fund" measure of the Productive Sector OP of the</p> <p>NDP 2000-2006 and NDP 2007-2013 which encourages co-operative research in agricultural production. This involves management of competitive tendering by</p>		
	1434	1770
	5466	8271
	8124	7563
	8124	6064

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 2007 stems from on-going financing of existing funded projects and an anticipated new "Calls".		
<b>Improvement of Livestock</b> Improving the quality of livestock and livestock products through adoption of better breeding and selection practices. 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.	1308	1083
<b>Genetic Resources in Plants and Animals</b> 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.	150	150
<b>US-Ireland Co-operation Programme in Agricultural Research</b> 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.	38	65
<b>Forestry</b> In 2006 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.	65	65
<b>TRAINING, EDUCATION AND INFORMATION</b>	1109	1003
<b>TECHNICAL SERVICES</b>	38203	39859
<b>OTHER SCIENCE AND TECHNOLOGY ACTIVITIES</b>	1903	2410

## Department of Agriculture and Food



	€'000 2006	€'000 2007
<p>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.</p> <p>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".</p> <p>In pursuing this mission, Teagasc focuses on:</p> <ul style="list-style-type: none"> <li>▪ Developing the information and new technology required to underpin competitiveness and innovation in sustainable agricultural production and the food processing sector.</li> <li>▪ Analysing and projecting the impact of policies for the agri-food sector.</li> <li>▪ Developing and maintaining a strong human resource capacity across the agri-food sector.</li> <li>▪ 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.</li> <li>▪ Developing a capacity in molecular biology with a view to increasing its application in the agri-food industry.</li> </ul> <p><b>RESEARCH AND DEVELOPMENT</b></p> <p><b>Sustainable agriculture and rural development</b></p> <p>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 create 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.</p>		
	35039	40106



<p><b>Food processing</b></p> <p>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.</p>	12283	17078
<p><b>Technical Services</b></p> <p>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:</p> <p>Analytical/diagnostic services such as the nematology service to the Department of Agriculture &amp; Food; analysis of silage, meals, water, compost, soils and plants; diagnosis of animal and other diseases;</p> <p>Consultancy services to Irish and EU agencies in areas such as land resource management, equipment development and policy analysis;</p> <p><b>The national farm survey</b></p> <p>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;</p> <ul style="list-style-type: none"> <li>• Consultancy and contract research in product development and product/process improvement;</li> <li>• Pilot plant facilities for R&amp;D and small-scale manufacturing;</li> <li>• Assistance with registration for ISO and installation of quality management schemes;</li> <li>• Assistance with marked investigations, market trends and analysis of market opportunities for food.</li> </ul>	3467	4643
<p><b>TRAINING, EDUCATION AND INFORMATION</b></p>		
<p><b>TECHNOLOGY TRANSFER</b></p> <p>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&amp;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.</p>	1940	2237
	51230	55759

# Department of Enterprise, Trade and Employment



an roinn fiontar, trádála agus fostaíochta  
department of enterprise, trade and employment

	€'000 2006	€'000 2007
<p>The Minister for Enterprise, Trade and Employment, currently Mr. Micheál Martin, T.D., assigns extensive functions, powers and responsibilities for the management and promotion of scientific research and development in Ireland to the industrial development agencies.</p> <p>The Mission Statement of the Department is:</p> <p><i>We will work for Government and the people to equitably grow Ireland's competitiveness and quality employment.</i></p> <p>One of the main goals of the Department is:</p> <p><i>We will prioritise investment in science, technology and innovation and the development of the knowledge society.</i></p> <p>The State-sponsored bodies entrusted with either the implementation or formulation of policy programmes for which the Department has responsibility are as follows:</p> <ul style="list-style-type: none"> <li>▪ Enterprise Ireland (EI)</li> <li>▪ Science Foundation Ireland (SFI)</li> <li>▪ IDA Ireland</li> <li>▪ Forfás</li> <li>▪ Shannon Development</li> <li>▪ The Patents Office</li> </ul> <p>The Department also provides an annual subvention to the Tyndall National Institute, Cork.</p> <p>The Department's activities are financed through a general vote of the Oireachtas. 16 staff are employed on science, technology and innovation (STI) activities at the Office of Science, Technology and Innovation (OSTI). The OSTI forms part of the Science, Technology and Intellectual Property Division of the Department. The OSTI is responsible for advising the Minister on general STI activities and the R&amp;D programmes of the agencies listed above.</p> <p>In addition, the OSTI is responsible for the funding of, and is represented on, the policy formulation committees of the following five Inter-Governmental S&amp;T Organisations:</p> <ul style="list-style-type: none"> <li>▪ European Space Agency (ESA)</li> <li>▪ European Molecular Biology Conference (EMBC)</li> <li>▪ Co-operation in Science and Technology Programmes (COST)</li> </ul>		

<ul style="list-style-type: none"> <li>▪ EUREKA</li> <li>▪ European Molecular Biology Laboratory (EMBL)</li> </ul> <p>€ 13.75m was provided for in 2006 in respect of Ireland's membership of these organisations.</p>		
<b>Science, Technology &amp; Innovation Programmes</b>	43990	49350
<b>Enterprise Ireland Programmes</b>		
1. Transforming R&D activity in enterprise	18493	26057
2. Industry collaboration with the 3 <sup>rd</sup> level sector	33329	35137
3. Realising the commercial potential of Ireland's research community	6871	7440
4. Programme support	102683	117984
<b>Total Enterprise Ireland</b>	<b>147570</b>	<b>165772</b>
<b>Science Foundation Ireland</b>		
	4008	6068
<b>Miscellaneous Programmes</b>		
STI Awareness Programmes (includes Evaluation & Innovation Lecture)	339	382
Bioethics Council	40	40
Irish Universities Association	254640	290246
<b>Total S&amp;T Programmes</b>	<b>12975</b>	<b>13285</b>
<b>Subscriptions to International Organisations</b>		
<b>European Space Agency (ESA)</b>		
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.	123	154
<b>EMBC</b>		
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.	3	3
<b>COST</b>		
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.	31	35
<b>EUREKA</b>		
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.	618	800

**EMBL**

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

## Department of Enterprise, Trade and Employment

Forfás



	2006 €'000	2007 €'000
<p><b>FUNCTIONS OF FORFÁS</b></p> <p>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.</p> <p><b>Among the functions of Forfás are:</b></p> <ul style="list-style-type: none"> <li>▪ Industrial policy development and co-ordination for State bodies such as IDA Ireland and Enterprise Ireland.</li> <li>▪ The promotion of scientific research and innovation in close association with Science Foundation Ireland and the Irish Council for Science, Technology and Innovation.</li> <li>▪ Research, analysis and policy advice on competitiveness and economic development, through the National Competitiveness Council and the Expert Group on Future Skills Needs.</li> <li>▪ Providing administrative and research support to the office of the Chief Scientific Advisor to government</li> </ul>		
<p><b>TRAINING, EDUCATION AND INFORMATION</b></p> <p><b>Science &amp; Technology Division</b></p> <p>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.</p> <p>The activities undertaken by the S&amp;T Division cover six main areas:</p> <ul style="list-style-type: none"> <li>▪ Delivering timely and well-founded policy analysis and advice on science, technology and innovation issues to national policy-makers.</li> <li>▪ Undertaking evaluations of existing S&amp;T policies and programmes, in order to improve their performance and relevance to economic development.</li> <li>▪ 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.</li> <li>▪ Providing secretariat and research support for the Advisory Council for Science, Technology and Innovation (ACSTI).</li> <li>▪ Advising and providing support to the Office of Science and Technology on international science and technology programmes and issues.</li> <li>▪ Discover Science &amp; 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.</li> </ul>	6376	7501

# Department of Enterprise, Trade and Employment

Enterprise Ireland



<u>RESEARCH AND DEVELOPMENT</u>		
<b>RTI Competitive Grant Scheme</b>		
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 Udaras na Gaeltachta. (Note - Figures shown here are EI ONLY)		
<b>R&amp;D Initiatives (R&amp;D Capability)</b>		
EI provides assistance for significant investment in R&D facilities which arise as part of a company's strategic development.		
<b>Innovation Partnerships (under RTDI Collaboration)</b>		
These aimed at harnessing the strengths of the third level sector to work in partnership with companies on specific R&D projects.	14221	16672
<b>Applied Research Enhancements (under RTDI Collaboration)</b>		
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.		
<b>Industry Led Networks (under RTDI Collaboration)</b>		
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.	19701	21000
	4100	8000
<b>Basic Research Grants (RTDI capital expenditure)</b>		
Funding represents EI's expiring commitments (now managed by SFI and IRCSET).		
	2042	4425
<b>International Collaboration (by colleges)</b>		
Supports academic researchers to engage in international collaborations and to access international best practice (in terms of research and facilities).		
	3428	2001
	1537	875
<u>TECHNOLOGY TRANSFER</u>		
<b>Competency Centres (under RTDI Collaboration)</b>		
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.	477	251
<b>Commercialisation Fund (under RTDI Collaboration)</b>		

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, Commercialisation 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.

37828

36621

**Networking Initiatives:** A key aspect of the transfer of knowledge from the research system to the productive sector is the maximising of scale.

**Technology Transfer**

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).

**Technology Transfer Strengthening**

This area supports a network of dedicated staff placed in the commercialisation function within universities and working directly in conjunction with them to ensure that best use is made of research outputs with commercial potential.

**Incubator (RTDI Infrastructure)**

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 3<sup>rd</sup> 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.

**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.

**OTHER S&T 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.

1455

2338

13093

13198

# Department of Enterprise, Trade and Employment

IDA Ireland



	€'000 2006	€'000 2007
<p>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 280 people and headquarters in Dublin, IDA Ireland has 12 overseas offices as well as a director and staff in each region in Ireland.</p> <p>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 almost 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.</p> <p>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 an R&amp;D capability grant scheme. There are no administrative costs associated with science and technology activities as no separate staff are assigned to administer research and development grants.</p>		
<p><b>Research and Development</b></p>	22685	26000
<p>R&amp;D capability grant assistance is provided to support the establishment of a new R&amp;D function or the substantial up-grading of an existing R&amp;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.</p>		
<p>Research Technological Development &amp; Innovation (RTDI) grant assistance is particularly directed at established companies which are planning to undertake their first R&amp;D projects and those which are significantly developing their existing R&amp;D activity.</p>	4,295	4,000
<p>In total, over 50 companies undertook to invest in R&amp;D activities in their Irish operations during 2006 and IDA committed in excess of €160 million in grant assistance to these projects.</p>		



## Department of Enterprise, Trade and Employment

Shannon Development



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, and for Arts, Sport and Tourism, in relation to Limerick, Clare, North Tipperary, South-West Offaly and North Kerry. Shannon Development acts under the aegis of the Ministers for Enterprise, Trade and Employment and Arts, Sport and Tourism. Shannon Development's vision for the Shannon Region is that the people of the region, and its investors and visitors, will live, learn, work and play, in the most forward thinking and exciting places in the world. The Company's key role is to lead and drive the broader regional economic development of the Shannon Region across all areas of economic activity working in partnership with the people of the Shannon Region, government, other public bodies and the private sector.

Shannon Development's key goals are:

- Ensure that the more developed areas of the Shannon Region are enhanced to realise their full development.
- Ensure that the potential of the less developed areas of the Shannon Region is realised.
- Create demand for Shannon International Airport.

The key responsibilities of the Company include the development and promotion of Shannon Free Zone; the development of the Knowledge Network throughout the Region; the promotion and development of tourism industry throughout the Region; the development of industrial and tourism infrastructure; and the development of strategic, or 'Flagship', projects that can have a significant impact throughout the Region.

	€'000	
	2006	2007
<b>RESEARCH AND DEVELOPMENT</b>		
<b>Product and process R&amp;D</b>	3899	1803
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 from the Exchequer Allocation (€334,000 in 2006) and from Enterprise Ireland (€2,678,000 in 2006). It is estimated that €1.653m will be received in 2007.		
<b>Feasibility grants</b>	469	100
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 on the Shannon Free Zone are funded from Shannon Development's Exchequer Allocation.		
<b>EDUCATION AND TRAINING</b>		
Specialised training is given to assist in the starting-up of new high tech firms.		
<b>TECHNOLOGY TRANSFER</b>	21	250
<b>OTHER S&amp;T ACTIVITIES</b>	77	50

# Department of Enterprise, Trade and Employment

An Foras Aiseanna Saothar (FÁS)



The functions of FÁS, the National Training and Employment Authority are:

- providing training and retraining 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 and guidance on and training opportunities for immigrants, whether asylum seekers or economic migrants.

In 2006 FÁS had actual expenditure, including capital of €996m. Its budget for 2007 is € 1060m also including capital. FÁS is the largest non commercial state agency, employing a total of 2,241 staff nationwide (figure at the end of December 2006).

	<u>€'000</u> <u>2006</u>	<u>€'000</u> <u>2007</u>
<b>RESEARCH AND DEVELOPMENT</b> 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.	756	808
<b>TRAINING, EDUCATION AND INFORMATION</b> During 2006, FÁS catered for a total of 49,113 people on its training programmes (including apprentices) and on schemes catered for 32,126 people.	89394	95742
<b>OTHER SCIENCE AND TECHNOLOGY ACTIVITIES</b> <b>Overseas Graduate Programme</b> The Overseas Graduate Programme places newly qualified Irish graduates with an Honours Degree (or higher) in business, engineering or science 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. In 2006, 25 graduates were offered positions in Japan (16) and China (9). However, due to late job offers, (2 Japan and 5 China) graduates subsequently withdrew. The target placement figure for 2007 is 50 rising to 65 in 2008.	325	424

# Department of Enterprise, Trade and Employment

Science Foundation Ireland



	€'000 2006	€'000 2007
<p>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.</p> <p>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.</p> <p>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.</p> <p><b>RESEARCH AND DEVELOPMENT</b></p> <p>Biotechnology (BioT)</p> <p>Information and communications technologies (ICT)</p> <p>Frontiers engineering and science (FES)</p> <p><b>SFI AWARD PROGRAMMES</b></p> <p><b>SFI principal investigator programme grants (includes SFI fellows award)</b> 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.</p> <p><b>SFI Centres for Science, Engineering, and Technology: Campus-Industry Partnerships (CSET)</b> 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.</p>		
	59144	64167
	61472	62430
	18959	28750

#### **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.

#### **Secondary Teacher Assistant Researchers (STARs)**

STARs supports second-level teachers in conducting research in Irish labs.

#### **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.

#### **Stokes Lectureship & Professorship Programme**

This programme aims to advance the research activities of a university department/school, rather than an individual researcher. It aims to do this by paying the costs of an individual appointed under the programme where the individual's objective is to enhance the research activities of the department.

#### **Strategic Research Cluster (SRC) Programme**

Similar to CSET's, the programme is intended to develop interaction between universities and industry, but on a lesser scale.

## Department of Enterprise, Trade and Employment

InterTradelreland



InterTradelreland is the all-island trade and business development body. InterTradelreland's mission is to enhance the global competitiveness of the all-island economy through the creation of knowledge-intensive all-island trade and business development networks and the implementation of all-island trade and business development programmes. These activities include a number of science, technology & innovation programmes which help create partnerships between businesses developing new products and processes and the third-level institutions and other commercial partners that have the knowledge and expertise required for success.

### Research & Development

#### Innova

Innova is an all-island collaborative R&D programme which stimulates, promotes and supports R&D co-operation between firms, North & South, with the support of public research organisations where required.

### Technology Transfer

#### Fusion

Fusion is an all-island technology transfer programme which offers firms with technology-based needs, such as the development of new products and processes, the opportunity to work within three-way partnerships that include third-level research institutions with specialist expertise and a high-calibre science and technology graduate.

### Other Science & Technology Activities

#### Expertiseireland.com

Expertiseireland.com is an online resource which provides access to the academic research expertise available across the island of Ireland. Facilities include researcher profiles, a searchable database of relevant funding sources and details of technology licensing opportunities.

	€'000	€'000
	2006	2007
RESEARCH AND DEVELOPMENT	788	1175
TECHNOLOGY TRANSFER	2960	3150
TRAINING, EDUCATION AND INFORMATION	0	100
OTHER SCIENCE & TECHNOLOGY ACTIVITIES	195	230

## Department of the Environment, Heritage and Local Government

Department of the  
Environment, Heritage &  
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 2007 is in excess of €2.9 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.

	€'000 2006	€'000 2007
<b>TECHNICAL SERVICES</b>		
<b>National parks and wildlife services</b>	4601	5400
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.		
<b>OTHER SCIENCE AND TECHNOLOGY ACTIVITIES</b>		
<b>International collaboration</b>	1278	1265
Contributions to international organisations: International Atomic Energy Agency International Atomic Energy Agency (Nuclear Terrorism Safeguards) Nuclear Energy Agency World Health Organisation (Radon Fund)		

**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.

205

256



# Department of the Environment, Heritage and Local Government

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:	€'000 2006	€'000 2007
<ul style="list-style-type: none"> <li>• Licensing large/complex industrial and other processes with significant polluting potential;</li> <li>• Monitoring environmental quality, including the establishment of databases to which the public have access;</li> <li>• Publishing periodic reports on the state of the environment;</li> <li>• Promoting environmentally sound practices;</li> <li>• Promoting and co-ordinating environmental research;</li> <li>• Licensing all significant waste recovery and disposal activities (including landfills) and the preparation and periodic updating of a national hazardous waste plan;</li> <li>• Implementing a system of permitting for the control of VOC emissions resulting from the storage of significant quantities of petrol at terminals;</li> <li>• Implementing and enforcing the GMO regulations for the contained use and deliberate release of GMOs into the environment;</li> <li>• Preparing and implementing a national hydrometric programme;</li> <li>• 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.</li> </ul>		
<p>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:</p> <ul style="list-style-type: none"> <li>• Improving overall compliance with environmental protection legislation in Ireland;</li> <li>• Raising awareness about the importance of enforcement of environmental protection legislation in Ireland;</li> <li>• Enforcing IPPC licences and waste licences issued by the EPA;</li> <li>• Auditing and reporting on the performance of local authorities in the discharge of their waste;</li> <li>• Environmental protection functions, including:               <ul style="list-style-type: none"> <li>○ Enforcement in respect of breaches of waste permits,</li> <li>○ Taking action in relation to illegal dumping,</li> <li>○ Implementation of waste collection permits, and</li> <li>○ Enforcement of producer responsibility initiatives (for example, in the area of packaging waste);</li> </ul> </li> <li>• Taking action against local authorities that are not discharging their environmental protection functions in an adequate manner;</li> <li>• Prosecuting, or assisting local authorities to prosecute, significant breaches</li> </ul>		

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.		
<b>RESEARCH AND DEVELOPMENT</b>	6547	8575
<b>The environmental research technological development and innovation (RTDI) programme (2000 - 2006)</b>		
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 +€32m. over the period 2000-2006, is provided by the Department of the Environment, Heritage and Local Government through the National Development Plan.		
<b>TECHNICAL SERVICES</b>	11271	11895
<b>IPC licensing and enforcement:</b> Implementation of the agency's IPC licensing and enforcement functions is the main technical service provided by this area.		
<b>Environmental monitoring and laboratory services</b> 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 incidents.		
<b>TRAINING, EDUCATION AND INFORMATION</b>	2245	2430

# Department of the Environment, Heritage and Local Government

Radiological Protection Institute of Ireland (RPII)



	€'000 2006	€'000 2007
<p>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:</p> <ul style="list-style-type: none"> <li>➤ to advise the Government and to provide information to the public on matters relating to radiological safety;</li> <li>➤ to regulate the use, transportation and disposal of radioactive materials;</li> <li>➤ to prepare safety codes and regulations for the safe use of ionising radiation;</li> <li>➤ to measure levels of radioactivity in the environment and assess their significance;</li> <li>➤ to assist in the development of a national plan from an emergency arising from a nuclear accident;</li> <li>➤ to provide a dosimetry service and to promote knowledge, proficiency and research in nuclear science and technology.</li> </ul>		
<b>RESEARCH AND DEVELOPMENT</b>	888	970
<p><b>Monitoring of environmental radiation</b> 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.</p> <p><b>Radon studies and information service</b> 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.</p>		
<b>TECHNICAL SERVICES</b>		
<p><b>Radiation protection in medicine and industry:</b> 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.</p>	1217	1722
<p><b>Emergency planning</b> 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.</p>	1697	2147
<b>TRAINING, EDUCATION AND INFORMATION</b>		

## Department of the Environment, Heritage and Local Government

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 payable by the airlines for meteorological services to civil aviation and by means of fee for information and advice supplied to commercial and other interests on a repayment basis.

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

	€'000	€'000
	2006	2007
<b>Research and development</b>	5249	3473
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.		
Some limited development is carried out in the area of Forecaster Workstation and Automatic Weather Observations		
<b>Technical services</b> Included here are the observers plus technical teams who provide the infrastructure and maintenance of automatic weather stations and onward transmission of this data. The people who operate and maintain the computers/platforms on which the climatological data base and the numerical weather prediction, wave and ocean models are run. The modellers who adapt the numerical prediction weather models to the Irish situation.	5614	6832
<b>Technology Transfer</b> Included here is the adaptation of computers and instruments to our automatic weather collection and forecasting needs.	471	200
<b>Education and Training and Information</b> Meteorological information is provided, on a routine basis to the media, and the general public and for national shipping, aviation and legal commitments. Training is provided within the service in several areas. In 2004, Met Éireann and UCD agreed to co-fund the creation of a Chair of Meteorology in UCD. Met Éireann will continue to utilise this course to satisfy some of its training requirements for the future.	10317	8822
<b>Other S&amp;T Activities</b> 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. Also included here is the admin budget of Met Eireann.	0	4169

## 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".

	€'000	
	2006	200
<b>Research and development</b>		
<b>Planning (policy) unit - monitoring and evaluation</b>	2,700	2,850
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; liaising 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.		
<b>Economic and social research institute (ESRI)</b>	317	317
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.		
<b>Combat Poverty Agency</b>	3,689	4,384
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.

**Comhairle/Citizens Information Board**

The Citizens Information Board (formerly Comhairle) is the national support agency responsible for supporting the provision of information, advice and advocacy on social services. The Board provides citizen's information for the general public, support for information providers and social policy and research information. The allocation is in respect of expenditure on the Citizens Information Website.

772

729

**Technical Services**

**Consultancy etc.**

This expenditure is mainly in respect of fees and expenses for consultancy assignments, research and studies. The services covered are mainly the REACH/eGovernment projects; the design and development of new computer systems to support the administration of social welfare services; technical software support.

24,581

38,443

**Training and Education**

**Library/Publications**

**International Collaboration**

140

145

**International Social Security Association**

21

21

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 for Employment and Social Solidarity (PROGRESS) 2007 - 2013 (exchequer contribution)**

30

123

The seven-year PROGRESS programme, agreed by EU Member States in October 2006, has as its key goal to financially support the implementation of the objectives of the European Union in the employment and social affairs area. It brings together a number of strands of activity which were formerly funded under separate Community Action Programmes (Social inclusion & social protection; Employment; Anti-discrimination; Equality between men and women; and Working conditions).

## 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 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 managed 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 or arrange for 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.

The Authority's research functions in the area of Road Safety have been assigned to the recently established 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, 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 standards. The technical and information services of the Divisions cater for these functions.

	€'000	
	2006	2007
<b>RESEARCH AND DEVELOPMENT</b>		
<b>Engineering and Network Management Division</b> Research is carried out on traffic growth, accident counter measures, travel times, vehicle volume forecasts, social attitudes to travel risk and the maintenance and updating of the national road database.	22	22
<b>Road Maintenance and Pavement Assessment</b> Research is undertaken on the development of procedures for the acquisition of road pavement performance data on construction and maintenance methods.	32	34
<b>Technical Services</b> 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.	86	91
<b>Information and Specialist Advisory Services</b> 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.	108	113
<b>Education and Training</b>	54	56
<b>Technology Transfer</b>	86	91
<b>Other Science &amp; Technology Activities</b>		

## Department of Community, Rural and Gaeltacht Affairs

Islands Division's Science and Technology Budget



**An Roinn Gnóthaí Pobail, Tuaithe agus Gaeltachta**  
Department of Community, Rural and Gaeltacht Affairs

	€'000 2006	€'000 2007
EIS and Physical Wave Modelling for improved pier facilities at Cill Ronáin	543	0
Physical Wave Modelling Study on Cé an Chalaídh Mhóir, Inis Meáin	46	0
Physical Wave Modelling Study and preliminary studies and/or design for improved pier facilities on Inis Oírr	185	100
Study of rare plants at the site of Inishboffin airstrip	15	0

## Department of Community, Rural and Gaeltacht Affairs

### Údarás na Gaeltachta

#### 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	€'000 2006	€'000 2007
Research and Development Grants 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.	2452	2500
Feasibility Study Grants These grants enable individuals, groups and firms to seek out and evaluate prospective new product ventures.	179	250

## Department of Education and Science

### DEPARTMENT OF EDUCATION AND SCIENCE

#### *An Roinn Oideachais Agus Eolaíochta*

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 2007 is €8,385m. The allocation for S&T activities is €738m. 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 new National Development Plan 2007-13 - Transforming Ireland, the Department will receive exchequer funding for the Government's Strategy for Science, Technology and Innovation (SSTI) Under the NDP/Community Support Framework for 2007-2013, EU funding will be delivered through one National Human Capital Investment Operational Programme and two Regional Operational Programmes, one each for the Border/Midlands Western and Southern & Eastern part-funded by the European Regional Development Fund and managed by the Regional Assemblies. The education related elements of the regional operational programmes will support R&D activities in the higher education sector.

	€'000	
	2006	2007
<b>EDUCATION AND TRAINING</b>		
<b>Institutes of Technology:</b>	384376	407358
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).		
<b>Third Level Grants:</b>	121739	126332
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.	595	656

Scholarships are also paid to Irish students to attend the College of Europe, Bruges.	35	36
<b>RESEARCH AND DEVELOPMENT</b>	77679	93714
<b>Third Level Research and Development Activities:</b>		
An allocation of €93,714m has been provided in 2007 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.		
<b>PRTLl and RTDI (capital)</b>		
The provision in 2007 for the capital component of the Programme for Research in Third Level Institutions (PRTLl) and the capital element of the Research Technological Development and Innovation (RTDI) is €68 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.		
<b>Direct Research &amp; Department Committee Support</b>	265	426
The Department will directly support a number of educational research projects through its research and development committee.		
<b>EU Projects Supporting R&amp;D</b>	1436	1482
Support is being provided for certain projects jointly with the EU. In 2007 activities will include the Lifelong Learning Programme (LLP) comprising the following actions :		
<ul style="list-style-type: none"> <li>• Leonardo da Vinci - the vocational education and training action of the LLP of young people in the context of the EU action programme in education</li> <li>• Comenius - the school education action of the LLP</li> <li>• Grundtvig - the adult education action of the LLP</li> <li>• Erasmus - the higher education action of the LLP</li> </ul>		
<b>St. Patrick's College</b>	1310	1310
Support for research activities in the field of education in St. Patrick's College, Drumcondra.		
<b>OTHER SCIENCE &amp; TECHNOLOGY ACTIVITIES</b>		
<b>European University</b>	159	256
Contributions to the budget of the Institute (Italy) and support of Irish students to pursue research projects.		

<p><b>International Science &amp; Technology Activities</b> Irish contribution to UNESCO, the International Institute for Education Planning, and the International Centre for Registration of Serials.</p>	471	577
<b>TRAINING EDUCATION AND INFORMATION</b>		
<p><b>Science and Technological Education (Investment) Fund</b> 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>	3827	6000
<ul style="list-style-type: none"> <li>(i) To review, extend and modernise the infrastructure of third level institutions, particularly in the technological sector</li> <li>(ii) To develop new areas of activities where emerging skill needs have been identified</li> <li>(iii) To invest in promoting innovation to maintain and further our economic growth.</li> </ul>		
<p>Nearly €4m was spent from the fund in 2006 on projects in the institutes of technology and the universities.</p>		
<b>ICTs programme for schools</b>	12601	31681
<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>		
<p>The new National Development Plan also includes provision to support a new Strategy for the ICT in Schools Programme. The Schools ICT initiative will build on the roll-out of broadband to all schools and is aimed at embedding ICT in teaching and learning through a programme of development that will involve investment in hardware and software facilities at classroom level, the development of technical support services for schools, enhanced curriculum based digital content, teacher education and ongoing professional development support. The new strategy will be pursued in partnership with industry and wider stakeholders.</p>		
<p>The provision in 2007 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</p>		

## Department of Education and Science

Higher Education Authority



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

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

In addition, it has the following specific functions:

- 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);
- maintaining a continuous review of the demand and need for higher education and making recommendations to the Minister on the provision of student places and the balance between institutions;
- making recommendations to the Minister on the provision for higher education and research, either in relation to current or future periods
- instituting and conducting studies on problems of higher education and research, and publications or reports of such studies;
- 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 2007 budget is similar to that used in the 1999-2006 budgets. A distinction is made between the HEA block grant allocated to academic departments and administration and support services.

	€'000 2006	€'000 2007
<b>RESEARCH AND DEVELOPMENT</b>		
<b>General Promotion of Knowledge</b>	150000	162400
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.		
	80489	98124
<b>Programme for Research in the Third Level Institutions (PRTLl)</b>		
The Programme for Research in Third Level Institutions (PRTLl) 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.		
<b>Training, education and information</b>		
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.		



## Department of Education and Science

Dublin Institute for Advanced Studies



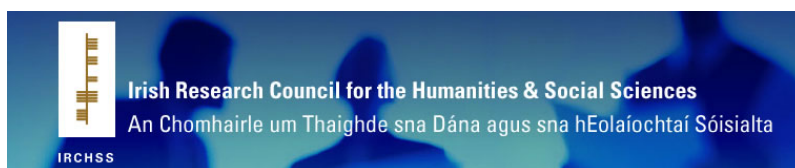
The Dublin Institute for Advanced Studies is a statutory corporation established in 1940 under the Institute of Advanced Studies Act, 1940. The Institute has three constituent schools - the School of Celtic Studies (not included in the Science Budget), the School of Theoretical Physics and the School 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.

	€'000	€'000
	2006	2007
<b>Research &amp; Development</b>		
<b>The School of Theoretical Physics:</b>	742	838
The School pursues research in the general areas of theoretical physics and mathematics. Particular areas of expertise are: theoretical particle physics, quantum field theory, quantum gravity, quantum mechanics, quantum information theory, quantum and classical statistical mechanics, disordered systems, geometry and topology, non-commutative geometry and infinite-dimensional algebras, lie groups and algebras, C*-algebras, functional analysis, and probability.		
<b>The School of Cosmic Physics:</b>	2,340	4,723
The School of Cosmic Physics has two research sections, one in geophysics and one in astronomy/astrophysics. The geophysics section runs the national seismic monitoring service and acts as a contractor for, among other projects, the seabed survey. In the astronomy/astrophysics section the main areas of research are star formation, high energy astrophysics, astroparticle physics and gamma-ray burst studies. The Institute plans to develop computational cosmic physics as a third area of expertise within the school. As part of this strategy it has been heavily involved in the establishment of the Irish Centre for High-End Computing (ICHEC) in collaboration with NUIG and other partners.		
<b>Training, Education and Information</b>		
<b>The School of Theoretical Physics:</b>	1744	2546
The School can and is willing to provide information and advice in the broad area of theoretical physics and mathematics. It is already giving lectures to advanced students in the Dublin universities as well as organising public lectures for a		

<p>general audience. It also supervises Ph. D. students registered at one of the universities. Interaction with interested parties in industry is welcomed and can provide information and help in the following areas in particular:</p> <p>Particle Physics; Statistical Mechanics; Electronics; Monte-Carlo Simulation; Coding theory; Probability Theory and Applications; Telecommunications; Relativity Theory and Gravitation.</p>		
<p><b>Training, Education and Information</b></p> <p><b>The School of Cosmic Physics:</b></p> <p>The CosmoGrid project, a consortium of nine research organizations led by the School of Cosmic Physics and funded by the HEA under PRTL Cycle 3, organizes training courses in numerical methods and grid technology.</p> <p>The school provides information on astronomical and geophysical phenomena on request to government departments, to educational authorities, to the Garda Siochana and to the legal, engineering and medical professions</p> <p><b>Cosmic Physics JETSET Marie Curie</b></p> <p>JETSET is a four-year Marie Curie Research Training Network (RTN) that commenced in February 2006. Its main scientific goals are focused on understanding the driving mechanisms of jets from young stars (including their possible crucial link with planet-forming disks); the cooling/heating processes, instabilities and shock structures in stellar and lab jets; and the impact of jets on energy balance and star formation in the galactic medium.</p>		
<p><b>Technology Transfer</b></p> <p>The Irish Centre for High-End Computing, part funded and hosted by DIAS, has a mandate to perform technology transfer in the area of advanced computational methods. It has recently signed a cooperation agreement with Met Eireann to assist with the operational weather forecast simulations.</p>	19	26
<p><b>Technical Services</b></p>	613	997

## Department of Education and Science

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.

	€'000 2006	€'000 2007
RESEARCH AND DEVELOPMENT	9533	13220

## Department of Education and Science

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.

	€'000 2006	€'000 2007
<b>RESEARCH AND DEVELOPMENT</b>	18771	22788
<p>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.</p> <p>IRCSET are involved in a number of EUROCORE projects through the European Science Foundation. IRCSET committed to the EuroDiversity, SONS and the S3T EUROCOREs in 2006. IRCSET are also participating in a number of further initiatives under this funding mechanism, and funding would commence in 2007 for successful applications. IRCSET became involved in the ERAnet Chemistry programme in 2006 which aims to implement joint bottom-up European Programmes in chemistry. The network comprises of the national research funding organisations from 14 EU member countries and Switzerland, with 7 other EU countries as associate members. The programme aims to establish an EU Research Area in curiosity-driven chemical research without noticeable national, formal and research subject boundaries.</p> <p><b>The postgraduate research scholarship scheme</b></p> <p>In addition to the Embark Scholarships, in 2004, 2005 and 2006 co-operative awards were offered in conjunction with a number of research partners. This aspect of the scheme continues to be expanded in 2007 to encompass a larger number of research areas and to ensure a greater number of talented researchers receive support.</p> <p><b>The postdoctoral fellowship scheme</b></p> <p>The Embark Initiative's postdoctoral fellowship scheme is designed to stimulate</p>		

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, Energy and Natural Resources



Department of Communications, Energy and Natural Resources  
Roinn Cumarsáide, Fuinnimh agus Acmhainní Nádirtha

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".

	€'000	
	2006	2007
<b>RESEARCH AND DEVELOPMENT</b>		
<b>Exploration Mining Division</b>	17	644
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.		
<b>Geological Survey Ireland</b>	9333	8900
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. The Griffith Geoscience Research Awards were developed with a view to significantly develop overall research capacity particularly in priority areas of geoscience research as outlined in the National Geoscience Programme 2007-2013. The awards will provide support for essential infrastructure research development particularly within the Geological Survey of Ireland (GSI) in addition to support for PhD students and Researchers.		
<b>National Digital Research Centre</b>	1500	5000
Established in November 2006, the NDRC will position itself as a translational research institute with a core mission to act as a national focal point for technology innovation in the digital media domain in Ireland. The Centre is operated by a consortium of 5 of the leading third level institutions in Ireland, namely University College Dublin (UCD), Trinity College Dublin (TCD), Dublin City University (DCU), Dun Laoghaire institute of Art, Design and Technology (IADT) and the National College of Art and Design (NCAD). The total monies allocated to the NDRC is €25 million over a five year period, 2006-2011.		
<b>Charles Parsons Energy Research Awards (I&amp;II)</b>	7900	6000
The awards are designed to increase Irish energy research capacity and a particular design feature is to attract engineering undergraduate students and graduates into a career in research. The output of the scheme will be skilled researchers in a range of priority research areas of relevance to Irish industry.		

<b>Beaufort Marine Research Awards</b>	0	2000
The key objective of the awards is to develop overall research capacity in priority areas of marine research as outlined in <i>Sea Change: A Marine Knowledge, Research and Innovation Strategy for Ireland 2007-2013</i> (available at <a href="http://www.marine.ie">www.marine.ie</a> ). Specifically, the awards aim to develop and strengthen research capacity in the following areas: Ecosystemsm Approach to Fisheries Management (EAF); Marine Biodiscovery; Sensors and Communications Systems for the Marine Environment; Fish Population Genetics; Economic and Social Research related to Development Dynamics of the Marine Sector in Ireland.		
<b>Griffith Geoscience Research Awards</b>	0	1000
The objective of the awards, which will be managed by the Geological Survey of Ireland (GSI), is to develop overall research capacity particularly in priority areas of geoscience research as outlined in the National Geoscience Programme, 2007-2013 (available at <a href="http://www.gsi.ie">www.gsi.ie</a> ). The awards will among other things support the establishment of an all-island geoscience graduate school and seek to stimulate interest by primary and secondary school students in Geology/Geoscience through the production and distribution of geoscience outreach products.		
<b>TECHNICAL SERVICES</b>		
<b>Petroleum Affairs Division</b>	812	841
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. At the end of 2004, three petroleum leases, nine offshore petroleum exploration licences, sixteen licensing options and nine petroleum prospecting licences were in place.		
Geological Survey Ireland (as above)	400	400
<b>TRAINING, EDUCATION AND INFORMATION</b>		
Geological Survey of Ireland (as above)	20	20
Contribution to exploitation station	35	200
Petroleum Affairs Division (as above)		2

## Department of Communications, Energy and Natural Resources

The Marine Institute



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. In this context, the Institute provides research management services including:

- Leading the implementation of sea change: A Marine Knowledge, Research & Innovation Strategy for Ireland 2007-2013 and the
- Administration of the Marine Research Sub-Programme of the STI Programme of the NDP 2007-2013.

In addition to the research management role, the Marine Institute also carries out and supports R&D in a number of other areas (further details are provided below). Research facilities include: 54 laboratories at the MI’s new headquarters in Oranmore, Co. Galway, Aquaculture & Catchment Management Facility in Newport, Co. Mayo, two National Research Vessels and Ocean Energy Test Site in Galway Bay.

Research and Development	€'000 2006	€'000 2007
<b>Strategic Planning and Development Services (SPDS)</b> SPDS’ mission is “To stimulate and support the development of strategic R&D actions and programmes (at national and international level) to promote marine related economic development in Ireland”. Key functions include (i) Overall responsibility for co-ordinating the implementation and management of Sea Change (ii) Development of on-going foresight and strategic planning activities at national and international level and (iii) acting as a catalyst for the management and delivery of developmentally focused national and international research and innovation programmes. Other key functions include R&D support for the development of marine technology, renewable ocean energy, marine biotechnology/biodiscovery, ICT development including new applications for both data mining and customer service.	84	58
<b>NDP</b> The management and administration of the marine research component of the NDP is managed by the Marine Institute on behalf of the DCMNR	3710	6477
<b>Marine RTDI Fund (2000-2006)</b> The guiding objectives of the measure are to enhance and consolidate the performance of the marine sector in Ireland through support for R&D and technology transfer activities; and provide the RTDI capacity and infrastructure to enable Ireland to fully utilise its marine resource potential in a sustainable manner. 3 sub-measures were created to structure investment during the		



lifetime of the plan; Sub-Measure 1: Enhanced Research Vessel Capacity, Sub-Measure 2: Marine RTDI Infrastructure, Sub-Measure 3: Marine RTDI Fund		
<b>Marine Research Sub-Programme (2007-2013)</b>	2284	2047
This Sub-Programme is one of the investment streams aimed at achieving the objectives of Sea Change: A Marine Knowledge, Research & Innovation Strategy for Ireland 2007-2013. The strategy will be implemented via three research measures - Industry, Discovery and Policy Support, and two Supporting Programmes - Innovation and Infrastructure. This Sub-Programme will be implemented through a range of mechanisms such as competitive calls for proposals from the research community (including industry) and the acquisition of new marine research infrastructure.		
<b>Ocean Science Services (OSS)</b>	4717	4694
Ocean Science Services (OSS) provides support for national and international marine research programmes through the operation of the two national Research Vessels ( <i>RV Celtic Voyager</i> and <i>RV Celtic Explorer</i> ). Services also include hydrographic and geophysical mapping for the Irish National Seabed Survey and the implementation of Integrated Mapping for the Sustainable Development of Ireland's Marine Resource (INFOMAR). The team also provides comprehensive oceanographic services, including the National Weather Buoy Network around the Irish coast, establishment of an Irish tide gauge network, ocean modelling, satellite remote sensing and oceanographic support of diverse seagoing research programmes related to marine fisheries and environment.		
<b>Fisheries Science Service (FSS)</b>	1739	888
The FSS team provides research, assessments and scientific advice on the sustainable exploitation of the marine fisheries resources in the waters around Ireland. The team carries out fisheries surveys in the waters around Ireland, collecting extensive data for both national and international stock assessments of the main commercial species of fish and shellfish. This information is used to produce the annual 'Stock Book' which is the primary source of scientific advice on marine fisheries to the Irish Government and the industry and is used to support fisheries negotiations with the European Union.		
<b>Marine Environment and Food Safety</b>	925	893
The MEFS team comprises 60 scientists who provide scientific services on food safety and the marine environment to the Irish seafood sector, as well as research and monitoring programmes in the areas of fish health and the marine environment. 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.		
<b>Aquaculture and Catchment Management Services (ACMS)</b>	0	0
The main functions of ACMS are to research, monitor, analyse and advise in the areas of finfish aquaculture, salmonid rearing, wild salmon & eel stock dynamics and freshwater catchment studies. The team provides a broad range of scientific advice both nationally to the DCMNR and specialist advisory groups (e.g. National Salmon Commission) and internationally to a range of organisations (e.g. EU Commission, ICES and NASCO).		
<b>Irish Maritime Development Office (IMDO)</b>	0	0
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. The team provides the following services: Industry Liaison and Support, Marketing and Business Development, Education and Outreach and International Development.		
	12434	11332

Technical Services	3007	2421
Education and Training	7886	7563
Other S&T		

# Department of Communications, Energy and Natural Resources

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.

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.

	€'000 2006	€'000 2007
<b>RESEARCH AND DEVELOPMENT</b>		
<b>Marine Technical</b>	1000	950
<p>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.</p> <p>Examples of some of the projects carried out are as follows:</p> <ul style="list-style-type: none"> <li>▪ Assessing alternative fishing methods that are energy efficient and non-deleterious to the environment. Harvesting practices that use the natural behavioural patterns of fish to attract/guide/direct fish towards fishing gear will be considered.</li> <li>▪ Developing and testing gear modifications that improve fuel and operational efficiency of traditional fishing gears including the use of low drag materials, hydrodynamic trawl doors and conversion from bottom trawling to more energy efficient fishing methods.</li> <li>▪ Combining the use of selective gears and improved onboard quality to develop environmental management systems, specifically for seine caught whitefish and live trawl caught Nephrops.</li> <li>▪ Assessing the potential of on-board freezing techniques for non-quota brown squid and Nephrops on board Irish vessels.</li> <li>▪ Improving the design and overall operational efficiency of acoustic deterrent</li> </ul>		

<p>devices used on static nets taking cognisance of new EU regulations.</p> <ul style="list-style-type: none"> <li>▪ Testing experimental pelagic trawls, designed to assist in the better utilisation of quotas for blue whiting, Atlanto-Scandian herring and capelin in third country or international waters.</li> <li>▪ Continuing the BIM sponsored 'Tag and Release' programme for Albacore and Blue fin tuna in Irish waters. These projects are carried out in close collaboration with the Marine Institute, GMIT in Galway and AZTI from the Basque country in Spain.</li> <li>▪ Developing alternative methods and systems for disposal of discarded fishing gear at the major fishery harbours including the provision of improved recycling facilities in collaboration with DCMNR.</li> </ul>		
<p><b><u>Inshore Fisheries</u></b></p> <p>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 2004. 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.</p> <p>The work involves the development of agreed management plans for the key (brown crab, lobster, shrimp, scallop and whelk) inshore fisheries and will be supported by an NDP funded two-year applied research programme to complement the work undertaken by the section over the past 5 years.</p> <ol style="list-style-type: none"> <li>1. BIM has a demonstration facility based in the NUIG Carna laboratory, which allows the development of commercially applicable handling protocols and facilitates operator training. In addition the development of 'user friendly' guides for industry will be facilitated.</li> <li>2. Continuing the development of a comprehensive suite of environmentally friendly fishing techniques for inshore species including size selective dredges and escape gaps for creels.</li> <li>3. Development work on niche fisheries such as hand-lined mackerel, pollack and squid will continue.</li> </ol>	703	625
<p><b><u>RESOURCE DEVELOPMENT</u></b></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> <p><b>Supporting Measures</b></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 €26.79 million has been awarded to a total of 109 projects.</p> <p><b>Planning and Development</b></p> <p><b>Seafood development centre (lab.)</b></p>	372	375
	3008	4500
	160	150
	80	100

# Department of Communications, Energy and Natural Resources

## Central and Regional Fisheries Boards



	€'000 2006	€'000 2007
<p>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.</p>		
<b>RESEARCH AND DEVELOPMENT</b>		
<p><b>Programme Monitoring</b></p> <p>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.</p> <p><b>RTDI</b></p> <p>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.</p>	3048	4392
<b>TECHNICAL SERVICES</b>	418	378
<b>TRAINING, EDUCATION AND INFORMATION</b>	84	73

# Department of Communications, Energy and Natural Resources

National Council for Forest Research and Development (COFORD)



	€'000 2006	€'000 2007
<p>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.</p> <p>COFORD's objectives are:</p> <ul style="list-style-type: none"> <li>▪ to identify research needs and establish priorities in research and development for the forest industry;</li> <li>▪ to co-ordinate forest research activities and channel research towards identifiable economic, environmental and social needs;</li> <li>▪ to foster specialisation and scientific achievement among research institutes, universities and regional technical colleges.</li> </ul>		
<b>RESEARCH AND DEVELOPMENT</b>	1,684	349
<p>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.</p>	2695	840
<b>TRAINING, EDUCATION AND INFORMATION TECHNOLOGY TRANSFER</b>		
<p>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 2006 is €3.8m.</p>		

# Department of Communications, Energy and Natural Resources

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 (RD&D);
- stimulating preparation of necessary standards and codes;
- publishing statistics and projections on sustainable energy; and
- achievement of targets.

	€'000 2006	€'000 2007
<b>RESEARCH AND DEVELOPMENT</b>	6441	14800
<p>Sustainable Energy Ireland's research, development and demonstration (RD&amp;D) programme is designed to assist the development of a least-cost path to CO<sub>2</sub> reduction and sustainable energy in Ireland. It has programmes active in the areas of built environment, industry, renewables, and transport and has three elements:</p> <ul style="list-style-type: none"> <li>• Public good activity</li> <li>• Shared cost activity</li> <li>• International collaboration on public good activities.</li> </ul> <p>The R&amp;D results will provide guidance to policy makers and private entities on the practical, regulatory, technological and market opportunities to achieve sustainable energy goals.</p> <p>The <i>House of Tomorrow Programme</i> offers a range of supports to developers</p>		

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.		
<b>TECHNICAL SERVICES</b>	823	700
<p><b>Alternative energy</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• Commission studies and reports of a public good nature that will lead to an informed development and wider deployment of renewable energy in Ireland;</li> <li>• Co-fund renewable energy R&amp;D projects which demonstrate emerging technologies, new applications or innovative market solutions.</li> <li>• Stimulate deployment of renewable energy based heating systems in the residential and SME sectors</li> </ul> <p>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 CO<sub>2</sub> emissions.</p> <p>Sustainable Energy Ireland's key actions will be as follows:</p> <ul style="list-style-type: none"> <li>• Identify and remove barriers to development</li> <li>• Assist the development of project financing and other market stimulation measures;</li> <li>• Conduct feasibility studies and implement and monitor demonstrations.</li> <li>• Fund the wide-scale deployment of fossil fuel and renewable based CHP in industry, commerce and public sectors</li> </ul> <p><b>Renewable Energy Information Office</b></p> <p>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.</p>		
<b>TECHNOLOGY TRANSFER</b>	3711	26500
<p>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. The Alternative Heat Programme was established to assist the large-scale deployment of renewable sources of energy over the next five years in these sectors. The programme covers three critical areas as follows:</p> <ul style="list-style-type: none"> <li>• Grants for House-holders: Greener Homes Scheme residential grants towards the installation of renewable energy technologies such as wood pellet boilers, solar panels and geothermal heat pumps.</li> <li>• Biomass: Grant assistance for wood chip and wood pellet boilers aimed at the business, commercial and service sectors.</li> <li>• Combined Heat and Power: Grant assistance to incentivise the installation of combined heat and power in the industrial, commercial</li> </ul>		



and public services sector;

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.

## 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.

	€'000	
	2006	2007
<b>Research and Development</b>		
<b>National Cancer Registry Board</b>	1720	2438
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.	1185	1000
<b>Health Promotion Unit:</b>		
<ul style="list-style-type: none"> <li>• 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.</li> <li>• an executive function concerned with the development and implementation</li> </ul>		

of national health promotion campaigns independently or in conjunction with statutory or non statutory agencies.		
<b>Other science and technology activities</b>	701	1150

## Department of Health and Children

Health Research Board



The Health Research Board (HRB) is the lead agency in Ireland supporting and funding health research. It provides funding, maintains health information systems and conducts research linked to national health priorities. The HRB's aim is to improve people's health, build health research capacity and make a significant contribution to Ireland's knowledge economy.

The HRB's latest Corporate Strategy clearly outlines how we hope to achieve this working in partnership with other organisations.

The HRB's strategic objectives are to:

1. Shape the national agenda for research in health and personal social services
2. Support research and health information systems linked to national health priorities, in order to improve people's health and the effectiveness of the health system
3. Build capacity for world-class health research in Ireland
4. Advance the contribution that health research makes to a sustainable knowledge economy
5. Increase awareness and understanding of both the impact and the value of health research and information
6. Establish Ireland as a significant contributor to international policy on health research.

	€'000	€'000
	2006	2007
<b>The Research Strategy and Funding Directorate</b>	41327	42744
<p>This Directorate manages all aspects of HRB funded research activities. The Directorate is comprised of three units:</p> <ul style="list-style-type: none"> <li>• Research Management Unit</li> <li>• Research Infrastructure and Special Initiatives Unit</li> <li>• The Policy, Evaluation and External Relations Unit</li> </ul> <p>The HRB currently manages funding programmes and commitments worth over €100 million. Funding covers all areas of health research from biomedical, translational, clinical and practice-based research, through to population health and health services research.</p> <p>The <b>Research Management Unit</b> has responsibility for funding projects, programmes and career support. The HRD also offers a number of different career support schemes to researchers and health professionals.</p> <p>The <b>Research Infrastructure and Special Initiatives Unit</b> has responsibility for developing the infrastructure to support health research in Ireland and for managing special initiatives. The Unit is responsible for co-ordinating the work</p>		

<p>of the Cancer Consortium, the Irish Clinical Research Infrastructure Network (ICRIN), and the development of other large-scale infrastructure initiatives such as clinical research centres and networks.</p> <p>The <b>Policy, Evaluation and External Relations Unit</b> has responsibility for the development of research policy, evaluating the outcomes of HRB funded research and promoting national and international links. Information on the outputs and outcomes of HRB funded research may be found under evaluation.</p>		
<p><b>The Health Information and In-House Research Directorate</b></p>	<p>3516</p>	<p>4898</p>
<p>This Directorate manages all aspects of HRB's national health information systems and internal research activities. The Directorate is comprised of four units:</p> <ul style="list-style-type: none"> <li>▪ Alcohol and Drug Research Unit</li> <li>▪ Child Health Epidemiology Unit</li> <li>▪ Disability Databases Unit</li> <li>▪ Mental Health Research Unit</li> </ul> <p>The <b>Alcohol and Drug Research Unit</b> is a multi-disciplinary team of researchers and information specialists who provide objective, reliable and comparable information on the drug situation, its consequences and responses in Ireland. The Unit maintains two national drug-related surveillance systems and is the Irish national focal point for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). The Unit also manages the National Documentation Centre on Drug Use. Through its activities, the Unit aims to inform policy and practice in relation to drug use.</p> <p>The <b>Child Health Epidemiology Unit</b> is involved in epidemiological research, mainly in the field of pregnancy and child health. The main focus of the current research programme of the Unit is on the aetiology and primary prevention of neural tube defects and other congenital malformations. The Unit is also developing a research programme into child health inequalities. This will provide accurate evidence for policy makers to make informed decisions on how to address childhood health inequalities.</p> <p>The <b>Disability Databases Unit</b> manages two national health information systems for people with disabilities. The National Intellectual Disability Database and the National Physical and Sensory Disability Database. The disability databases provide a comprehensive and accurate information base for decision making in relation to the planning of specialised health and personal social services for people with intellectual, physical or sensory disabilities.</p> <p>The <b>Mental Health Research Unit</b> carries out national and international research, information gathering and the dissemination of research outcomes on mental health and mental illness in Ireland. The results of this research inform national policy, health service management, clinical practice and international academic research. The Unit manages and reports on the National Psychiatric In-Patient Reporting System and is developing COMAR - a system which will collect information in community psychiatric services. Both information systems will inform on policy and planning for mental health services nationally and regionally.</p>		

## Department of Health and Children

### 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 toward expenses of the Board.

	€'000	€'000
	2006	2007
TECHNICAL SERVICES	2574	2651
TRAINING, EDUCATION AND INFORMATION	3767	3880
OTHER SCIENCE & TECHNOLOGY ACTIVITIES	1270	1308

## Department of Health and Children

Food Safety Authority of Ireland



### GM food tests

The FSAI is the competent authority in Ireland for GM food and as such must ensure that only authorised GM ingredients are on the market and that they are labelled appropriately. In 2006 the FSAI sampled 78 foods containing maize, soy or rice ingredients. Samples were analysed by a commercial laboratory where 12 were found to contain EU-authorised GM ingredients at levels below the labelling threshold, though three of the products had labels indicating that no GM ingredients were present. In addition and in response to emergency EU legislation, the FSAI took 19 samples of rice products which were then analysed by the State Laboratory for the presence of an unauthorised GM rice variety. Five of the products tested were shown to contain the unauthorised GM rice and were voluntarily withdrawn from the market.

### Tests on irradiated food

The FSAI is the competent authority for irradiated food in Ireland and compiles results each year from analyses of a range of foods carried out by the public analyst laboratories. In the EU a certain number of foods may be irradiated in authorised facilities but irradiated foods must be labelled. In 2006, 13 food samples were found to have been irradiated out of a total of 465 that were tested while none were labelled to indicate that they had been irradiated as required by law.

	€'000	€'000
	2006	2007
RESEARCH AND DEVELOPMENT	485	505
TRAINING, EDUCATION AND INFORMATION	157	310

## Department of Arts, Sport 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.

	€'000	€'000
	2006	2007
<b>RESEARCH AND DEVELOPMENT</b>	275	390
Curation of collection		
Fieldwork and foreign travel		
Research support fund		
<b>TRAINING, EDUCATION AND INFORMATION</b>	150	0
Training of staff		



## Department of The Taoiseach

National Economic Social Council



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.

	€'000	
	2006	2007
<b>Research and development</b>	952	1116
<b>Areas researched include:</b> 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: <i>A Strategy for Development 1986-1990</i> (1986); <i>A Strategy for the Nineties: Economic Stability and Structural Change</i> (1990); <i>A Strategy for Competitiveness, Growth and Employment</i> (1993) and <i>Strategy into the 21<sup>st</sup> Century</i> (1996); <i>Opportunities, Challenges and Capacities for Choice</i> (1999); and <i>An Investment in Quality: Services, Inclusion and Enterprise</i> (2003); and <i>NESC Strategy 2006: People, Productivity and Purpose</i> .		
These reports provided the framework for negotiation of the national agreements between government and the social partners over the past decade.		

## 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. The Institute is governed by a Council, currently twelve in number, elected from the general body of its membership.

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.

	€'000	
	2006	2007
<b>Research and development</b>	5994	6412
During 2006 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 €2,947,000 in 2006 and is estimated at €3,942,000 for 2007. Income from membership fees amounted to €132,771 in 2006 and estimated at €140,000 for 2007.		
<b>Technical &amp; information services</b>	5467	9888
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 commenced 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.		

## Offices



**Central Statistics Office**  
An Phríomh-Oifig Staidrimh

## Central Statistics Office

### General Information

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 set 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 2006 amounted to €74.942m. The 2006 Net allocation is €54.900m.

The number of staff provided for in the CSO's 2007 Vote is 840. 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.

### Central Services / Administration

Net expenditure on central services, which includes senior management, administration, research and development and information technology amounted to 19% in 2006 and is estimated at 32% in 2007. The increase in the percentage share of central services reflects higher total expenditure in 2006 due to the Census of Population.

In both 2006 and 2007, 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 late in 2007.

# Central Bank and Financial Services Authority



CENTRAL BANK &  
FINANCIAL SERVICES  
AUTHORITY OF IRELAND  
EUROSYSTEM

	€'000	
	2006	2007
<p>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:</p> <ul style="list-style-type: none"> <li>▪ 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</li> <li>▪ 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.</li> </ul> <p>The Central Bank became part of the Economic and Monetary Union (EMU) in Europe in 1999 along with ten (now twelve) 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.</p> <p>As a member of the Eurosystem, the Central Bank's main responsibilities include:</p> <ul style="list-style-type: none"> <li>▪ Contributing to the maintenance of price stability (low inflation) and a stable financial system</li> <li>▪ Ensuring safe and reliable payment and settlement systems, to enable firms and individuals to make payments to each other</li> <li>▪ Producing and distributing Euro banknotes and coins and ensuring the security and integrity of the Euro currency</li> <li>▪ Managing foreign exchange assets, on behalf of the European Central Bank.</li> </ul>		
<b>RESEARCH AND DEVELOPMENT</b>	953	1087
<p>The bank continued to monitor, analyse and project short-term developments in the Irish and Euro-area economies during 2006. 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 2006.</p> <p>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.</p> <p><b>Main areas of economic research include:</b> economic intelligence and forecasting, inflation and competitiveness, monetary issues, econometric modelling, public finances, structural issues, housing market, productivity and growth.</p>		

## Office of Public Works



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, 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 2006 was 2,174. The Office manages voted expenditure of approx. €638m per annum.

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

### Capital Expenditure on buildings where S & T research occurs

	€'000	
	2006	2007
<b>New Works, Alterations and Additions</b>		
Coosan Veterinary Laboratory Phase 3	7	0
Dept. of Agriculture Laboratory	310	2500
Longtown Farm	133	7000
Drumshambo Veterinary	426	1967
Backweston Research & Development	3679	18000
Forensics Phoenix Park	560	1000
The Assay Office	798	3250
State Laboratory	454	1000
Marine Institute Galway	2285	3400
Bord Iascaigh Mhara, Laboratory		2200
<b>Total</b>	<b>8653</b>	<b>40317</b>

## 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 its 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.

	€'000	
	2006	2007
<b>TECHNICAL SERVICES</b>	8099	10009
<b>Agriculture (inorganic)</b>		
Fertilisers are analysed on behalf of the Department of Agriculture and Food to ascertain compliance with both EU and national legislation.		
<b>Environment/special services</b>		
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.		
<b>Animal feedstuffs</b>		
Animal feedstuffs 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.		
<b>Microbiology/GMO</b>		
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.

### **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 such as 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.

155

200

### **TRAINING, EDUCATION AND INFORMATION**

## Ordnance Survey Ireland



Ordnance Survey Ireland (OSI) was set up as a statutory state agency under its own Act on 4<sup>th</sup> 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 277 are directly involved in technical mapping activities, with the remainder in administration and support activities.

Actual overhead costs are included under science and technology activities.

	2006	2005
	€'000	€'000
<b>TECHNICAL SERVICES</b>	28,352	24,348
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. There are 277 staff involved in this activity.		



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## Forfás Publications 2007

<b>Template Collaboration Agreements</b> Based on the National Code of Practice for Managing and Commercialising Intellectual Property from Public-Private Collaborative Research	December 2007
<b>Ireland's Co-operative Sector</b>	December 2007
<b>Annual Competitiveness Report 2007</b> Benchmarking Ireland's Performance National Competitiveness Council	November 2007
<b>National Competitiveness Challenge 2007</b> National Competitiveness Council	November 2007
<b>Overview of the Main Infrastructure Issues for Enterprise</b>	November 2007
<b>National Skills Bulletin</b> Expert Group on Future Skills Needs	November 2007
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<b>Review of Governance Options for Collaborative Research Ventures</b>	April 2007
<b>Report of the Business Regulation Forum</b> Business Regulation Forum	April 2007
<b>Promoting Enterprise-Higher Education Relationships</b> Advisory Council on Science, Technology and Innovation	April 2007
<b>Research and Development Statistics in Ireland 2006 - at a glance</b>	March 2007
<b>Research and Development Performance in Business Sector in Ireland 2005/6</b>	March 2007
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<b>Waste Management in Ireland</b> Benchmarking Analysis and Policy Requirements	March 2007
<b>Tomorrows Skills: Towards a National Skills Strategy</b> Expert Group on Future Skills Needs	February 2007
<b>Business Continuity Planning - Responding to an Influenza Pandemic</b> Advice to Businesses on Preparing for a Pandemic	February 2007
<b>State Expenditure on Science &amp; Technology and Research and Development 2005 and 2006</b>	February 2007

Annual Competitiveness Report 2006, Volume 2 - Ireland's  
Competitiveness Challenge  
National Competitiveness Council  
Enterprise Statistics - at a glance, 2006

February 2007

January 2007

### Forfás Websites

The publications of Forfás and the independent advisory councils to which it provides administrative and research support are available on the Forfás website [www.forfas.ie](http://www.forfas.ie).

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