

chapter 8



Enterprise, Science and Innovation Priority

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Enterprise, Science and Innovation Priority

Investment under the Enterprise, Science and Innovation Priority of NDP 2007-2013 is indicatively estimated at €20.0 billion. This investment will be spread across the following Programme areas:

Enterprise, Science and Innovation Priority

Programme	All figures in € million current prices					
	Exchequer	PPP	Local Auth.	State Bodies	Other	Total
Science, Technology & Innovation	5,922	0	0	97	93	6,112
Enterprise Development	2,577	0	0	746	0	3,323
Tourism Development	620	180	0	0	0	800
Agriculture & Food Dev.	8,028*	0	0	0	0	8,028
Rural Social & Economic Dev.	844**	0	0	0	0	844
Gaeltacht & Islands Dev.	404	0	0	53	0	457
Marine and Coastal Communities	442	0	0	0	0	442
Enterprise, Science & Innovation Total	18,838	180	0	896	93	20,006

*€2.1bn of this will be reimbursed by the European Agricultural Fund for Rural Development.

**€234m of this will be reimbursed by the European Agricultural Fund for Rural Development.

The key objectives under this Priority will be:

- to fully implement the Strategy for Science, Technology and Innovation in the period to 2013, thereby achieving a transformational change in the quantity and quality of research and enhancing the contribution of research to economic and social development and increasing the numbers of people with advanced qualifications;
- to improve the capacity of indigenous industry to compete in the domestic and global marketplace by addressing key issues including productivity, management skills and the use of technology and marketing;
- to continue to attract Foreign Direct Investment and to grow indigenous industry, both on a regionally balanced basis;
- to support the further development of a tourist industry with the potential to attract 10 million visitors per annum by 2012 in line with the strategy set out in the “New Horizons” Report of the Tourism Policy Review Group;
- to produce quality Irish food products from an agri-food industry that supports rural economies and preserves our countryside;
- to promote economic development in rural, Gaeltacht and island areas; and
- to support the development of a market-oriented seafood industry.

Role of Enterprise, Science and Innovation

In order to build on Ireland's recent success and to ensure better standards of living and quality of life, improved and sustainable competitiveness is vital. While overall economic performance remains strong, Ireland now faces a major challenge to increase the number of high-paid jobs and knowledge-intensive investment needed to sustain our performance into the future. Ireland's response to this challenge will need to be underpinned by a strong, dynamic Enterprise sector, able to export marketable, high quality goods and services into an increasingly competitive global economy.

Notwithstanding the excellent progress made under the NDP 2000-2006, high levels of investment will be necessary under this NDP in the areas of Science & Technology, Enterprise Development, Agriculture & Food, Marine and Tourism to promote development in these areas. The continued promotion of Ireland as an attractive location for Foreign Direct Investment by IDA Ireland will also be a central objective of this Priority. This will be complemented by support for the development of indigenous enterprise by Enterprise Ireland, the County Enterprise Boards and other agencies.

Report of the Enterprise Strategy Group

In its 2004 Report '*Ahead of the Curve*', the Enterprise Strategy Group identified a series of actions to deliver future enterprise development in Ireland. Investment under the NDP will promote this approach, especially in the areas of economic infrastructure and enterprise, science and technology. Under the Enterprise Science and Innovation Priority of this NDP, a number of specific Programmes, notably the Science Technology and Innovation Programme, will give a particular focus to measures proposed by the Report of the Enterprise Strategy Group.

Other Areas

The Enterprise, Science and Innovation Priority will also invest in the continued development of our agriculture and food sector, the marine sector and tourism. The agri-food sector is our major indigenous industry and faces many opportunities and challenges. To ensure its continued competitiveness, the agri-food sector must be consumer-focused and market-driven. At the same time, it must respect and enhance the environment. The marine sector also faces significant challenges and will receive support to build a sustainable economic future. Tourism also finds itself in a situation in which the traditional tourism package will need to be refocused while Ireland's attractiveness to tourists from abroad will need to be enhanced and vigorously promoted overseas.

The challenges facing the agriculture and marine sectors reflect the overall challenge confronting rural communities. Accordingly, this Priority will see a particular effort made to promote the economic and social development of rural areas, the Gaeltacht and the islands.

Science, Technology and Innovation (STI) Programme

Public funding of Research and Development (R&D) has risen rapidly in recent years, more than doubling between 2000 and 2005. However, Ireland's performance in R&D is still behind that of the leading countries and, increasingly, it is seen as essential that we develop real competitive strength in this area. Accordingly, the increased investment in R&D already under way in line with the Strategy for Science, Technology and Innovation (SSTI) (2006-2013) will continue during the period of the NDP.

The Science Technology and Innovation (STI) Programme over the period of the NDP will operate through the following Sub-Programmes:

- World Class Research STI Sub-Programme — €3,462 million;
- Enterprise STI Sub-Programme — €1,292 million;

- Agri-Food Research Sub-Programme — €641 million;
- Energy Research Sub-Programme — €149 million;
- Marine Research Sub-Programme — €141 million;
- Geoscience Sub-Programme — €33 million;
- Health Research Sub-Programme — €301 million; and
- Environment Research Sub-Programme — €93 million.

R&D forms an important part of the activities of many public sector organisations, notably in Third Level education and the IDA, and substantial expenditure on R&D is embedded in their budgets under other Sub-Programmes of the NDP. The Enterprise Programme includes R&D expenditure of €600 million and third level R&D expenditure in the Higher Education Programme is of the order of €1.5 billion, bringing the total Science, Technology and Innovation investment in this Plan to over €8.2 billion.

Strategic Context

The development of a knowledge-based economy is one of the key challenges and opportunities facing Ireland. The factors which have contributed to our economic success to date will not be sufficient to sustain our recent achievements. Increasing international competition is creating pressure for improvements in efficiency, quality and productivity and a growing need to innovate. These pressures will increase and intensify. It will require forward-looking steps to achieve real strategic change and show tangible medium-term results.

The SSTI addresses these very demanding challenges. This Strategy, which constitutes one of the principal pillars of the NDP, will strive towards a vision of an Ireland in 2013 internationally renowned for the excellence of its research and at the forefront in generating and using new knowledge for economic and social progress, within an innovation driven culture. Implementation of the Strategy will move Ireland forward significantly in areas such as the output of PhDs, Gross Expenditure on R&D and Business Expenditure on R&D. The strategy is aimed at making ambitious but realistic progress in the period up to 2013 and the resources involved are commensurate with those aims.

The SSTI provides for the continued development of a world-class research system, underpinned by the essential physical infrastructure and human resources, almost doubling the number of PhD graduates over its lifespan. Top-level researchers will be drawn both from home-grown talent and from overseas.

The SSTI proposes mechanisms to ensure that the investment in research is turned into commercial value to the greatest extent possible.

In regard to enterprise, the SSTI sets out structures and mechanisms to enhance supports to industry and encourage firms to become more engaged in R&D activity. Detailed targets are set for this, encapsulated in the goal of increasing Business Expenditure on R&D (BERD) from the current level of €1.1 billion to €2.5 billion by 2013.

The SSTI also has significant implications for the education system as a whole, with curriculum and teacher training improvements focused on ensuring that science stimulates and enthuses students, from school entry right through to career choice.

In addition, the SSTI sets out a broad agenda for public sector research across all key research performing Departments. This research will yield important social and economic benefits across areas such as Agriculture and Food, Marine, Health, Environment and Energy.

A common theme of policy in recent years in both jurisdictions, North and South, has been to encourage universities, institutes of technology and research institutes to develop collaborative relationships in this area. An intensification of collaboration across the border will enhance the value of such activity.

The Government has also demonstrated its ongoing commitment to Ireland's achieving and maintaining a position as a leading location for R&D through, among other things, focusing generous tax incentives on R&D. In Budget 2007, the Minister for Finance announced measures to enhance the R&D tax credit scheme which are aimed at promoting increased R&D spending in Ireland's manufacturing sector.

The EU's Seventh Research Framework Programme (FP7), which commenced on 1st January 2007, has a budget of over €50 billion and will run until 2013. FP7 is a critical component in delivering on the targets set out in the SSTI, which covers the same timeframe. A strengthened national support network will operate over the period of the Plan to encourage and facilitate Irish participation in the new Framework Programme.

World Class Research STI Sub-Programme

Introduction

Some €3.5 billion will be provided under this Sub-Programme to underpin the contribution of the higher education sector to the SSTI. The goal is to place world class research and world class people at the centre of the national system of innovation. The SSTI provides for the continued development of a world-class research system underpinned by the essential physical and human infrastructure, almost doubling the number of PhD graduates over its lifespan. The combination of increased funding, active recruitment of top-level researchers from home and overseas, the development of career paths and mobility mechanisms are intended to grow our stock of researchers quantitatively and qualitatively. The investment in people will be matched by an investment in infrastructure.

Programme for Research in Third Level Institutions (PRTLII)

The PRTLII will contribute very significantly to the attainment of the goals and objectives of the SSTI. The main human capital contributions under PRTLII to research programmes over the period of the Plan will be as follows:

- The PRTLII has a particular focus on funding the early stage flow into the pipeline of postgraduate students and early stage researchers. Other funders can then build on this by focusing on funding senior researchers to conduct research in sectoral areas. Both approaches are complementary.
- The PRTLII will focus on enhanced quality postgraduate training and the provision of a wider spectrum of skill sets to postgraduate students. In this context the PRTLII will be the key funder of graduate education initiatives (such as graduate schools).
- Furthermore the PRTLII will continue to encourage interaction between the research environment and education and training at both postgraduate and undergraduate levels so as to maximise the benefits to all dimensions of the higher education system.
- Collaboration between higher education institutions will continue to be a key priority of the PRTLII

Science Foundation Ireland

Science Foundation Ireland (SFI) is central to Ireland's goal of becoming a global knowledge-based economy. Through strategic investments in the people, ideas and partnerships essential to outstanding research in strategic areas, SFI will help build research of globally recognised excellence and nationally significant importance, particularly in the areas of Biotechnology and Information and Communication Technologies.

SFI will provide grants for outstanding researchers through a range of awards normally ranging between €50,000 to €250,000 per year for a three to four year period. Under the Research Professor Awards, grants will be provided for outstanding researchers, with particularly distinguished international reputations, ranging up to €2.5 million over a five year period.

One of the most significant programmes which will be operated by SFI over the course of this Plan is its Centres for Science, Engineering and Technology (CSET) programme. The objectives of the programme are to fund scientists who will build collaborative efforts that develop internationally competitive research clusters allied to industry. Grants normally range from €1 million to €5 million per year for up to five years. It is envisaged that the next call for proposals of the CSET programme will be made on an all-island basis. SFI will also operate a new initiative, the Strategic Research Clusters (SRC), which will create clusters of internationally competitive researchers from academia and industry, particularly Irish-based industry. SRC grants will be awarded for periods of three years and will normally range from €500,000 to €1,500,000 per year.

Under the Women in Science and Engineering Initiative, SFI will provide grants under three programmes designed to support and sustain women in science and engineering research in Ireland. SFI's targeted programmes will be supplemented by SFI Workshop and Conference Grants to support significant international scientific meetings in Ireland and ensure that Ireland's reputation in this key area is continually enhanced by the hosting of events of international significance.

Research Councils

The three research Councils, the *Irish Research Council for the Humanities and Social Sciences*, the *Irish Research Council for Science, Engineering and Technology* and the *Irish Energy Research Council* will strive to stimulate internationally recognisable excellence in research by providing interlinked research supports for both early stage researchers and small research teams. This activity, which will be funded under this sub-programme will complement the activities of the PRTL itself. The Research Councils, will be working with the Higher Education Authority (HEA) on PRTL to maximise synergies between their respective activities. Thus the key output from the Research Councils will be postgraduate students and well trained researchers i.e. postdoctorates. Postdoctorates will have up to date training and be close to developments in their area, and will be key drivers of research and innovation. These experienced researchers will also play a key role in the transfer of knowledge to students. The scope of the Research Councils, which between them cover all areas of science, engineering, technology, arts and humanities positions them to address the need for postgraduate students across all sectors and dimensions of society.

Technological Sector Research Initiative (TSRI)

Targeted funding under this Sub-Programme to put in place a foundation for research in the Institutes of Technology, in line with an agreed framework, will be implemented by the Department of Education and Science. These investments will underpin and enable proposed investments through Enterprise Ireland.

North/South Research Programme

Following from activities under the NDP 2000-2006, the Department of Education & Science (DES) will continue to support North/South research collaboration under this Sub-Programme. To date DES initiatives have enabled collaboration between 116 researchers from 11 institutions north and south of the border, paving the way for an all island research knowledge base. This commitment to cross-border research is recognition of the benefits to be gained by the whole island by having agreed strategy and joint programmes in a variety of areas of interest to the economy and society.

Infrastructure

World class research requires first class people and also the supportive infrastructure within which to carry out that research. Much of that infrastructure is specialised: technologies such as nanotechnology, for example, require facilities which are very different from the general purpose labs provided for undergraduate education. Under this Sub-Programme, it is intended that appropriate provision should be addressed both through the upgrading of existing facilities and the provision of new infrastructure. The implementation mechanisms will, inter alia, ensure effective linkage between competitive research funding and the provision of associated infrastructure.

The PRTL is the critical mechanism for providing the core infrastructure through which overall delivery of the SSTI will be achieved. The PRTL will fund the building of the physical pipeline — both in terms of the expanded and strengthened physical research infrastructure required to deliver objectives across the spectrum of the SSTI and the key personnel, which will enable new initiatives/entities to be viable and effective.

Electronic Infrastructure

Development of the physical infrastructure will be complemented by an enhanced electronic infrastructure including such measures as access by researchers in the Higher Education Institutes (HEIs) to electronic journals and the development of a high-speed bandwidth network, HEAnet, to facilitate competitive and collaborative research.

Enterprise STI Sub-Programme

The Enterprise STI Sub-Programme will invest €1.3 billion under the Plan in promoting the maximum development and optimal use of STI in Irish enterprise. The Sub-Programme will be primarily delivered by Enterprise Ireland and IDA Ireland in support of industry relevant R&D and commercialisation during the course of the Plan. The Sub-Programme has three key elements:

- i. Transforming R&D Activity in Enterprise;
- ii. Industry/Higher Education Institutes Collaboration; and
- iii. Realising the Commercial Potential of Ireland's Research Community.

Transforming R&D Activity in Enterprise

The objective is to get more firms involved in doing R&D, to increase the amount of R&D that existing performers are doing, and to raise the quality of the R&D they perform. To date, support for in-company R&D has been provided through the development agencies to their client companies largely by means of the R&D Capability Scheme and the RTI Competitive Scheme. Under Technology Ireland, which has been established as part of the implementing structures under the Government's Strategy for Science, Technology and Innovation 2006-2013, the development agencies will implement a more holistic and systematic approach to providing supports to companies. The goal of promoting increased investment in company R&D will be best achieved by a simple, coherent scheme that can be accessed by firms at all stages of development.

In order to encourage small businesses to engage in in-house research, a Knowledge Acquisition Grants Scheme and an Innovation Vouchers Scheme, as recommended in the Report of the Forum on Small Business, will be introduced.

Specific additional initiatives around R&D awareness will be introduced in order to increase awareness of the need for, and benefits from, technological research and innovation, and to encourage existing firms to do more. As part of its single R&D offering Enterprise Ireland will encourage the employment of technically

qualified graduates especially in low R&D performers. The Techsearch initiative, particularly focused on the needs of SMEs, will help companies access and apply new technology.

Industry/Higher Education Institutes (HEI) Collaboration

It is recognised that interaction between industry and the HEIs, which retain the largest pool of researchers and scientists within the national innovation system, must be encouraged and enhanced if the required increases in Business Expenditure on R&D is to be achieved. Enterprise Ireland programmes will be the main vehicle to promote such collaboration and these will include a modified Innovation Partnership Scheme as well as the recently introduced Industry-led Networks. The development of these networks and the promotion of additional networks will be strongly supported over the course of this Plan. EI will support the establishment and development of applied research centres in the Institutes of Technology, aimed at building sufficient scale to allow them to make an impact on industry in their locality through collaboration.

Industry-led research needs to be supported by appropriate infrastructure and support. The development agencies will work together, under Technology Ireland, in the development of competence centres and centres of excellence such as the Tyndall National Institute in Cork.

A National Digital Research Centre (NDRC) will be established that will focus on collaborative translational digital media research. The Centre will increase national research capacity and will increase the capacity of firms to convert research into commercial products and services.

Realising the Commercial Potential of Ireland's Research Community

It is vital that publicly funded research does not remain just as published research but that it is taken forward to the product development and production stages, where the most significant economic benefits can be harvested. The generation, capture, protection and exploitation of Intellectual Property is a major component of the SSTI.

Enterprise Ireland will operate a Commercialisation Fund to support academics in taking research forward to commercialisation. It will also operate an Intellectual Property Fund to assist both third level institutions and firms with the protection and management of patents arising from research. It will support the construction and development of campus-based Business Incubation Centres in all Institutes of Technology and Universities.

A further major initiative will be the operation of a new programme by EI to support each Third Level Institution in developing its own Technology Transfer Office in order to assist the strengthening of the Intellectual Property function in the institutions. In addition, EI will provide expert and specialised centralised support to the institutions thereby maximising the commercialisation of Intellectual Property. Two National Codes of Practice for Managing Intellectual Property, for fully or partly publicly funded research have also been published which will provide assistance and guidance to relevant parties.

Agri-Food Research Sub-Programme

The investment of €641 million will provide a scientific foundation and support for a sustainable, competitive, market oriented and innovative agriculture, food and forestry sector. The business, economic and regulatory climate for agri-food is changing rapidly and the industry will operate in a more open market driven economy without the support of traditional EU subsidies. Agricultural production systems must also be sustainable and operate in harmony with the environment. Environmental quality and food safety, combined with other quality-orientated dimensions, including concern for nutritional value and animal welfare, are now central to the longer-term international competitiveness of the agri-food sector. The industry needs to reposition its product range from basic commodities to more differentiated products with higher added value. Driving

industry up this value chain is a major challenge and is predicated on greater industry R&D involvement, with the support of public funded R&D knowledge and expertise.

Teagasc research covers the entire food chain and its programme will be focused on providing a strong scientific foundation, including use of new technologies to agriculture, food, non-foodland use and the bio-economy generally. To meet the new challenges, Teagasc will invest in centres of excellence that will equip those involved in agriculture and food with the knowledge to improve efficiency, competitiveness and responsiveness to the market. The organisation's resources devoted to the new biosciences will be expanded so that world-class expertise in selected key areas is established. This new direction for research will involve capital investment in projects including an animal science centre, laboratories for a functional food programme, a clinical trials facility and a nutraceutical research facility.

The DAF Agriculture and Veterinary Laboratories will operate as science based centres. Through use of core and competitive funding, they will collaborate with the Universities, Teagasc and other Institutes.

Competitive Programmes — In addition to the core-funded programmes above, competitive public good research in agriculture, food and forestry will continue under the Sustainable Agriculture, Food and Forestry Research Programmes.

Research Stimulus Fund (RSF) — Research in Sustainable Agriculture Production

Funding will be provided to *The Research Stimulus Fund — RSF* for research in sustainable agricultural production, including advances in animal and plant biosciences, animal and plant health, agri-environment and biodiversity, non-food land use, rural economy and other areas not covered in the mainstream programmes.

Food Institutional Research Measure (FIRM)

Funding will be provided for the FIRM programme which will continue to fund research that is relevant to the needs of a diverse modern, innovative, market-led food industry. Research will focus on food quality, safety and nutrition with an emphasis on food for health, including product and process technology development, to underpin the agri-food industry. FIRM funded food safety research will also underpin many of the national food safety programmes which assure public health and support the overall quality image of Irish food on home and international markets.

Research in Forestry

Funding will be provided for a continuation of the COFORD Forestry competitive research programme. The future success of the forestry sector depends on it being able to produce and sell products in a highly competitive market, while at the same time providing public goods and services. Research will focus on the need to position wood production and processing as an internationally competitive sector, as well as to assess and develop the public good benefits of forestry.

Energy Research Sub-Programme

Some €149 million will be invested in the Energy Research Sub-Programme over the period of the Plan. Investment under this Sub-Programme is additional to investment under the Sustainable Energy Sub-Programme of the Economic Infrastructure Priority. The energy sector is a vital, strategic sector. It is characterised by rapid growth, exceptionally high dependency on imported fuels and environmental obligations arising from the Kyoto Protocol and relevant EU Directives. These drivers require Ireland to develop a more competitive contribution from indigenous, and in particular, renewable energy sources, together with major improvements in energy efficiency in transport, energy supply systems, buildings and industry.

Ireland's energy knowledge needs require a tailored research strategy rather than simple duplication of research strategies developed elsewhere. Research capacity poses a major challenge due to the small size of the existing research base and the limited supply of students with potential to become researchers.

The strategic direction for energy research will focus on increasing the efficiency of energy use in order to reduce energy demand and on bringing forward promising renewable energy technologies. Investment will be made in the appropriate intellectual and physical capacity to undertake this research, and to seek to maximise synergies and opportunities for collaboration on an all-island basis, in line with overall government policy. The newly established Irish Energy Research Council will play a vital role in the prioritisation and coordination of the research activities.

Sustainable Energy Ireland (SEI) Research

The SEI's R&D strategy includes consolidation of the successful research actions funded under NDP 2000-2006 and the augmentation of these actions in order to support emerging national energy policy.

Actions will include:

- i. Assessing the potential, costs and development for renewable energy technologies, techniques, research, field trials and demonstrate those likely to be deployed in the Irish Market in particular for:
 - Ocean Energy;
 - Bio-Energy;
 - Wind-Energy;
 - Small scale embedded generation; and
 - Carbon capture and storage.
- ii. Improving the energy and CO₂ performance of the housing stock by proving appropriate technologies and promoting viable market examples in order to stimulate market uptake.
- iii. The House of Tomorrow programme which is designed to develop a least cost path to achieving CO₂ emissions reduction and more sustainable energy designs and features in new Irish housing.

Irish Energy Research Council

The newly established Irish Energy Research Council will advise on priorities for Irish energy research to 2013 and for the longer term. The Council will coordinate existing energy Research Technological Development and Innovation (RTDI) activities and provide analysis and advice. It will complement SEI programmes in the area of large scale demonstration activities and also complement the relevant work of development agencies in this area. It will also advise on the Irish engagement with international energy programmes including the EU framework programme. The work of the Council will have an all-island dimension and this is also reflected in its membership.

Funding will be provided for research recommendations of the Irish Energy Research Council from the overall provision of €149 million referred to above.

Charles Parsons Awards

These awards, the first initiative of the Irish Energy Research Council, will stimulate a significant increase in the number of energy researchers in Ireland. The awards will be made to research groups and will fund PhD students, full time researchers and undergraduate engineers who will work on research projects during

the summer vacation periods. This initiative will address the difficulties concerning limited capacity to undertake research, such as the current small base of energy researchers. The initiative is also designed to attract key international researchers to come to Ireland. The awards will be made to energy research groups located anywhere in the island of Ireland.

Marine Research Sub-Programme

Under this Sub-Programme some €141 million will be invested in developing the potential of production research in the Marine area. The Marine Institute's '*Sea Change: a Marine Knowledge, Research & Innovation Strategy for Ireland 2007-2013*', highlights the key research activities and outputs associated with the marine research component of the NDP 2007-2013. The Strategy will be implemented under the Plan via three Research Measures and two Supporting Measures set out beneath. The funding package will be administered via competitive calls for proposals from the research community (including industry). The Industry support and innovation measures and other relevant sections of '*Sea Change*' have been developed with Enterprise Ireland. The Marine Institute will implement these activities with the close involvement of Enterprise Ireland.

Marine Industry Research Measure

This will strengthen the competitiveness of existing marine industry and support activities that add value to their outputs in an environmentally sustainable manner. The measure targets existing and largely indigenous marine sub-sectors primarily the marine food, ocean energy and shipping and transport sectors. It will support applied industry research initiatives, which improve competitiveness and sustainability and directly influence or create new industrial and commercial opportunities by utilising knowledge and technology arising from research in the natural sciences, engineering and commerce. The measure will support research in the following areas: Shipping & Maritime Transport, Seafood Processing, Finfish Aquaculture, Shellfish Aquaculture, Fisheries Resources, Seaweed, Offshore Oil & Gas.

Discovery Research Measure

This measure will target new research opportunities to seed fund a range of initiatives and to leverage existing capabilities into the marine area. This will result in a new understanding of marine research and additional capacity in the marine related areas such as: Marine Biodiscovery/Biotechnology, Marine Technology, Marine Functional Foods, Renewable Ocean Energy and Rapid Climate Change.

Policy Support Research Measure

This measure will inform public policy, governance and regulation of the sector. It will apply knowledge derived from research and obtained by monitoring the marine environment, to inform marine related decision making in the public and private sectors. The measure will support research into knowledge and information management systems required to capture and disseminate marine data and information. The measure will comprise three elements: (1) Marine Environment, (2) Knowledge & Information Management and (3) Socio-Economic & Legal Research.

Marine Innovation Support Measure

Innovation Support is a cross-cutting support measure appropriate to all three Research Measures outlined above. It will encompass a significant range of technical support measures associated with the management and delivery of the three measures. This will include dedicated programme management resources, third level/industry brokering and facilitation, technical mentoring, the stimulation of international collaboration and support for commercialisation. The main objective of this programme will be to support industry to develop R&D management and development capability and to support the commercialisation of R&D outputs.

Infrastructure Support Measure

Specialist marine research infrastructures, essential to the delivery of the Marine Research Strategy, have been identified. They represent a significant and long-term financial investment in national marine science and technology infrastructure. Some of the requirements may be amenable to Public Private Partnerships and they will act as “Research and Technology enablers” facilitating the development of niche knowledge based products and services. They will also provide a powerful “attractant” to joint public/private research partnerships with international and multinational companies, in the medical, pharma and energy technology sectors. The following have been identified as key areas under this measure: Seabed & Resource Mapping, High End Computing Capacity, coastal & marine observation & monitoring systems, extension of ocean and coastal monitoring network and research vessels.

Geoscience Sub-Programme

Some €33 million will be invested under this Sub-Programme in research that impacts on a number of Government priority areas including Energy, Marine, Environment and Transport. Geoscience knowledge is critical to environmental protection and investment planning. Applications include protecting the quality of groundwater, developing strategies to cope with climate change, securing new indigenous sources of energy and the optimal planning of motorways.

INFOMAR Project

This is the successor programme to the Irish National Seabed Survey. The benefits arising from this survey will place Ireland at a competitive advantage in relation to leveraging international funding for offshore energy exploration, including offshore hydrocarbons, aggregates and renewable energy sources and the siting of a deep sea observatory in Irish waters.

Resource and Environmental Survey of Ireland (RESI) Project

The *Resource and Environmental Survey of Ireland (RESI)* Project will provide, for the first time, an integrated national baseline survey of Ireland using state of the art airborne geophysical surveying techniques complemented by ground geochemical surveys. This survey data will underpin the assessment of environmental status that assists in the discovery of new mineral and aggregate resources, that help delineate new groundwater resources and inform planning authorities on issues relating to water quality and geo-hazards potential (radon risk, subsidence, landslides etc.).

Infrastructure Support Project

Historically, Geological Survey Ireland (GSI) have carried out a number of projects, principally for Local Authorities and other Government agencies, to support infrastructural development. Instead of developing as piecemeal coverage, a co-ordinated national study will be carried out to provide a full suite of products to support infrastructural development.

Geoscience RTDI

A Geoscience Strategy for Ireland (32 County) is in preparation under the auspices of GSI guided by the Geosciences Committee of the Royal Irish Academy. In order to develop what is still an embryonic research sector, funding is provided over the life of the NDP to underpin strategic research in a number of key areas. A geoscience graduate programme, incorporating island-wide networked teaching resources, as well as additional research infrastructure, is designed to support this initiative.

Health Research Sub-Programme

Some €301 million will be available under the Health Research Sub-Programme to support research which will both benefit the health of the population and contribute to the development of marketable products.

The results of health related research can play a major role in people living longer and healthier lives and increased productivity. Health research and development are key elements for the improvement of the health of the population, not just in the context of the insights and discoveries it provides, but also in attracting to the Irish healthcare system practitioners of the highest calibre and ensuring that we have access to new innovations.

Health Research contributes to providing a world-class standard of care to patients across a range of specialities. The National Strategy for Science, Technology and Innovation 2006-13 identifies two separate pillars of health research — Science for Health and R&D for Health. Science for Health refers to laboratory associated research, including microbiology and molecular biology. R&D for Health refers to population based research, including aspects of public health promotion, environmental health, and the determinants of health. There is a strategic requirement to build up both of these pillars.

Healthcare is a €3.4 trillion industry worldwide and likely to grow with increasing life-expectancy and personal wealth. The pharmaceutical and medical devices industries' presence in Ireland has grown at a faster rate with a higher level of foreign direct investment than in other countries. Ireland can capture more industrial R&D activity with state-of-the-art resources in a range of domains, including basic biomedical sciences, information technology, and bioengineering and drug development. For example, Ireland has been successful through the Health Research Board in recently attracting capital investment of €10 million from the private sector in the establishment of a major clinical research centre at St. James's Hospital.

Health related research investment in the university sector needs to be complemented by the health services to 'translate' this research output into new innovative products and interventions. The investment in research under the Programme for Research in Third Level Institutions (PRTLTI) and Science Foundation Ireland (SFI) is increasing the capacity of the university sector to undertake world class research. Centres of excellence in translational health research with strong foundations in both academia and health services will act to attract the pharmaceutical and medical devices industry, nationally and internationally. These centres will be built through strategic investment in research infrastructure, people and programmes by competitive, peer review awards through the Health Research Board and other funding agencies.

Support will also be made available through the Health Research Board for health research to find better ways of improving the health of the population. Again, the funding will be provided through competitive, peer reviewed calls to researchers in academic institutions and health agencies.

Environment Research Sub-Programme

Some €93 million will be invested in environmental research which will inform policy development and implementation. The structure of the Sub-Programme will be broadly the same as the Environmental Research Technical Development and Innovation Programme (ERTDI) funded under the NDP 2000-2006. This latter Programme principally supports environmental policy development and implementation through research into environmentally sustainable resource management and, more generally, overall sustainable development. It also co-funds, with the private sector, research into cleaner production methods and finances the National Environmental Research Centre of Excellence operated under the aegis of the Environmental Protection Agency (EPA). The ERTDI is administered by the EPA with funding from the Department of the Environment, Heritage and Local Government. A considerable amount of programme research is undertaken by the academic community under contract with the EPA.

Under the new Environment Research Sub-Programme, particular emphasis will continue to be placed on research to combat the principal environmental challenges identified by the EPA — meeting our international commitments on air quality (CO₂ and acidifying gases), waste management and eutrophication

of surface waters. Research to assist in identifying the best options for implementation of EU environmental legislation will also continue to be a feature of the Sub-Programme.

In Ireland, investment in the environmental sector is now estimated at over €1 billion annually, generating employment for some 6,000 people. The emphasis needs to be on investing in environmental research to promote “first-mover” benefits and exploit the current growth in the environmental technologies market. The key measures under the Sub-Programme will be;

Sustainable Development Measure

Research under this measure is concerned with informing policy development and implementation. The research topics include commitments on air emissions, eutrophication prevention, waste management and the integration of environmental and natural resource considerations into the policies, plans and actions of economic sectors.

Cleaner Production Measure

This measure will part fund and support specific research projects to develop and promote eco-innovations and environmental technologies and is a step towards the practical implementation in Ireland of the EU’s Environmental Technologies Action Plan (ETAP). The Cleaner Production Measure seeks to promote industrial and economic efficiencies while simultaneously contributing to the protection of the environment.

Environment and Health Measure

The relationship between the environment and health will be the focus of research effort under this measure. Human health protection is a fundamental aspect of environmental protection since our health is impacted on, *inter alia*, by the air we breathe, the water we drink and the food we eat. Although very substantial progress has been made in controlling risks to water and air quality from industrial emissions, more remains to be done in this regard, and emissions to air from the transport sector pose challenges in meeting tighter EU standards by 2010. Research and development capacity will be vital to the identification of these risks and the measures required to ameliorate them.

Enterprise Development Programme

Total indicative investment under the Enterprise Development Programme over the period 2007-2013 is estimated at €3.3 billion. This is broken down between the following Sub-Programmes:

- Indigenous Industry Sub-Programme — €1.7 billion; and
- Foreign Direct Investment Sub-Programme — €1.6 billion.

Importance of the Enterprise Sector

The enterprise sector is of vital importance to the economy, accounting for 67% of employment, the vast majority of Irish exports and 91% of productivity growth since 1980.¹ In particular, the internationally trading manufacturing and services sectors are vital to a small open economy like Ireland. Ireland’s long-term economic success will depend on the continued strength of our enterprise base.

This base comprises both internationally trading and domestically focused firms, which are largely small businesses. Internationally trading firms in Ireland employ almost 303,000 people, about 15% of the total

¹ The enterprise sector is defined as the private sector excluding agriculture and tourism.

workforce.² Such firms spent €34 billion in 2004 in wages, raw materials and services and registered exports of €24 billion. This performance had very beneficial effects for the domestic economy.

Over 97% of businesses operating in Ireland today are small, i.e. they employ fewer than 50 people. Small businesses provide regionally distributed employment around the country, deliver a huge range of local services, and contribute to the economic, social and cultural life of the entire population. They employ more than half of the total private sector, non-agricultural workforce.³ They account for over 70% of gross value added (GVA) in construction, over 40% of GVA in services and 34% of GVA in indigenous manufacturing. In particular, they form an essential part of the supply chain for larger firms, and are part of the support infrastructure needed to attract and retain foreign investment.

Strategic Context

Challenges Facing the Enterprise Sector

Ireland's export and FDI competitiveness has weakened during the last five years, as illustrated by our recent trade performance. While world trade grew by an average of 6% per year between 2002 and 2005 in value terms, the value of Ireland's exports grew by an average of just 2% per annum over the same period. While the level of foreign direct investment (FDI) in Ireland, relative to the size of the economy, is one of the highest in the world, the growth of international competition for FDI has led to a decline in Ireland's share of greenfield investments. Ireland must, therefore, continue to develop new value propositions and work processes that reflect our strategic competitiveness in an increasingly competitive market place.

Ireland has a relatively narrow export base, heavily dependent on companies in the medical devices, life sciences, ICT, food and financial services sectors, making Ireland vulnerable to sector and company specific developments. Growth trends in manufacturing and services are currently leading to a further narrowing of this base. The chemicals and pharmaceuticals sectors continue to grow what is an already strong world market share, while Ireland's market share in office and telecoms equipment has fallen significantly in recent years. In the services sector, finance and information services have experienced significant growth in recent years, but this appears to have slowed in 2004.

While both manufacturing output and merchandise export levels increased significantly between 2000 and 2005 (by 28.2% and 31.8% in volume terms respectively), the total number of persons employed in manufacturing in Ireland declined by approximately 31,000 over the same period⁴. The positive aspect of this trend is that it suggests that strong productivity improvements have been achieved over the past 5-6 years in the Irish manufacturing sector. The nature of this sector in Ireland has evolved noticeably since 2000, and is likely to continue to do so. In order to sustain and grow the sector going forward, Irish manufacturing enterprises will have to continue the progression to high value added sectors and activities, and continue to increase productivity through investments in human capital, technology and innovation.

Ireland's economic progress also remains closely tied to global economic developments. The build-up of large international macroeconomic imbalances could potentially have adverse effects on the Irish economy.

Today, more than ever before, Irish economic success depends on the growth of our indigenous companies. It is also increasingly important that Irish exports diversify into more foreign markets so that sales are not over-exposed to the economic fortunes of any particular country or region. In the coming years, it is vital that Irish companies are able to compete on the international stage and take advantage of the upside to globalisation by using high value, knowledge-intensive activities to support sustainable jobs and relatively high wage rates. In this regard, Irish-based enterprises are facing two important challenges:

² This refers to agency-supported companies.

³ The actual figure is 777,000.

⁴ The Changing Nature of Manufacturing and Services, Irish Trends and International Context, Forfás, July 2006.

- Between 2000 and 2006, Ireland experienced a significant loss of international price competitiveness, reflecting a combination of higher price inflation in Ireland and an appreciation of the euro against the currencies of many of our trading partners. The emergence of capacity constraints has contributed to higher wage and business costs.
- The overall implications of the new State Aid regimes due to come into force in 2007 will be to significantly reduce the intensity of State support permitted to enterprises, particularly in the GDA, South-West, Mid-West and South-East Regional Authority areas.

The State's primary responsibility in relation to enterprise policy is to ensure that the broad environment and essential framework conditions continue to underpin and support the development of a sustainable enterprise sector.

In line with the recommendations of the Enterprise Strategy Group (ESG) and Small Business Forum (SBF), financial incentives and other supports over the period of the Plan will focus on developing those spheres of activity where Ireland is, or could become, an internationally significant location for FDI and on building capacity in, and creating more knowledge-based, technologically innovative, sustainable and competitive indigenous enterprises. In this context, it is important to recall that the Enterprise sector will also benefit from the provisions of the Enterprise STI Sub-Programme (set out earlier in the Enterprise, Science and Technology Priority). The Plan also separately provides for overall investment of some €88 billion in economic and social infrastructure. This will lead to a further radical enhancement of the quality of our infrastructure and will be particularly beneficial to Enterprise Development. In addition, although outside the scope of the Plan, maintenance of a favourable tax environment for Enterprise will be crucial.

Indigenous Enterprise Sub-Programme

Continuing the economic success of recent years will require indigenous Irish enterprises to overcome complex new challenges and to harness a range of new opportunities. Enterprise Ireland (EI) is acutely aware of the significant challenges and indeed opportunities that indigenous companies face in this new economy. Their lack of scale is a key issue, as is their need for improved management skills, their need to develop international marketing and sales capabilities, their need to exploit state-of-the-art technology and business processes, and their need to forge strategic alliances and partnerships. The focus of Enterprise Ireland's overall strategy for the period of this Plan will be to maximise export sales through the utilisation of applied research, technology and innovation while wishing to promote regionally balanced economic development.

EI's effort in this regard will be complemented by the supports provided by the County and City Enterprise Boards (CEBs). The role of the CEBs in helping to generate a strong culture of entrepreneurship and the creation of new businesses is important as a generator of wealth and employment at the local level.

Achieving balanced regional development has been a guiding principle in the provision of Enterprise Ireland supports to client companies and in initiatives to improve business infrastructure. The implementation of the National Spatial Strategy as set out in Chapter 3 has the potential to transform a range of locations throughout the country and their broader environs by providing the requisite environment for enterprise development. EI's Regional Strategy, which will be implemented over the course of the Plan, establishes how EI will work with new and existing client companies in the regions to develop the necessary factors for future success. EI will also work with counterparts in Northern Ireland to develop collaboration and enhance business development on an all-island basis. InterTradeIreland will also continue its work providing support for business from all parts of the island developing all-island business networks.

Investment of €1,691 million will be made in the following key measures under this Sub-Programme over the period of the Plan:

- High Potential Start-Ups and Scaling Growth Orientated Companies;

- Increasing Competitiveness and Productivity;
- Developing Management and International Sales Capabilities;
- Access to appropriate Equity and Finance; and
- Support for entrepreneurship and micro-enterprise.

High Potential Start-Ups and Scaling Growth Orientated Companies

Stimulating the establishment, development and scaling of new High Potential Start-Ups (HPSUs), across a range of high value sectors and markets will be a major priority for EI to ensure the continued development of the Irish industrial base. This approach will focus on stimulating and supporting an increased number of start-ups with high growth potential, particularly in regions outside of Dublin, and improving the quality and sustainability of these start-ups. It will involve working intensively with start-ups with high growth potential to help them access and build export business and achieve scale in their target market.

Increasing Competitiveness and Productivity

Increasing wage costs will require concomitant increases in productivity if competitiveness in Irish companies is to be maintained. Productivity improvement initiatives will support manufacturing companies to improve competitiveness through technology and training. Firms will be supported in adopting advanced technologies, developing management and skills and investing in capital/machinery/automation, thereby increasing competitiveness and enhancing export readiness and growth prospects. EI will support and promote best practice in supply chain management as a key driver for productivity improvement and competitive advantage.

Developing Management and International Sales Capabilities

To compete successfully in the international marketplace Irish companies will need to develop world-class management teams. The key areas of focus for EI in this regard will include human resource development, management development and mentoring. To encourage and develop international sales capabilities in client companies EI will provide services and assistance including market intelligence, in-market technical, legal and financial expertise, targeting potential buyers, buyer introductions and facilitating Irish companies to establish overseas. InterTradelreland will also continue to support companies to further develop cross-border trade and links between businesses North and South.

Access to Appropriate Equity and Finance

A crucial element to the success and growth of start-ups and growing firms is access to early stage and development capital. EI's financial support regime will be geared to the needs of entrepreneurial teams with strong business plans. EI will work in partnership with the private sector to promote and leverage investment opportunities in High Potential Start Up Companies. The continued development of the venture capital sector will be an essential component of EI's strategy. EI will also continue to provide financial planning and advice, access to Business Angel Networks and Investor Ready Programmes to client companies.

Support for entrepreneurship and micro-enterprise

The nurturing of a positive culture of entrepreneurship and promotion of the formation of new, particularly innovative, enterprises with growth potential will remain a key objective over the timeframe of the Plan. Based on the development of their existing suite of interventions, the County Enterprise Boards (CEBs) will:

- Promote entrepreneurship throughout society through initiatives such as their Start-Your-Own-Business training courses, schools enterprise programmes, awards schemes, networks including the Women-in-Business networks, etc.;

- Support owner/managers of micro-enterprises through the provision of an information service on Government services/requirements and related information needs;
- Assist business start-ups and expansions with appropriate financial supports; and
- Build the management capability of owner/managers of micro-businesses through training and development measures, including mentoring programmes.

EI will continue to focus on improving the enterprise environment in local economies by investing in local enterprise infrastructure through Community Enterprise Centres. A number of specific organisations will continue to be contracted to provide dedicated support at a sectoral/cross-sectoral level in particular the Crafts Council of Ireland and the Business Innovation Centres (BICs).

Foreign Direct Investment Sub-Programme

Foreign Direct Investment (FDI) has been pivotal to Ireland's success over the period of NDP 2000-2006 and this will continue over the period 2007-2013. FDI makes a significant contribution in terms of economic wealth generation, regional development, higher living standards and improved quality of life. It is also a key facet of our international impact and recognition. The investments and activities result in significant economic activity across a broad range of sectors and regional locations.

At the end of 2005, there were over 138,000 people employed in 1,080 IDA supported and Shannon Development client companies. These include many of the leading companies in information technology and communications, life sciences, international services, engineering and financial services. The challenge for both agencies over the period of the Plan is to sustain, embed and grow these investments and to entice new investments.

In developed economies such as Ireland, new global business models will continue to create quality investments and high skilled job opportunities in areas that require knowledge and skills based on design, Research, Development & Innovation (RD&I), and leading edge manufacturing. Activities in sectors such as Pharmaceuticals, Bio-Pharmaceuticals, Medical Technologies, ICT, Globally Traded Business, and International and Financial Services will continue to present opportunities for high value inward FDI. In the global economy the countries and regions that will benefit most will be those with a combination of highly skilled labour force, high quality infrastructure, research capability, and an efficient and business friendly regulatory and business environment. These aspects must have the capacity to embrace change, retain flexibility, develop intellectual property and promote knowledge intensive economic activity.

In addition to financial incentives, FDI will be attracted by a business-friendly and efficient operating environment, with good education facilities, quality access infrastructure, world-class telecommunications and pro-business public policy. Foreign investors will be drawn to locations because of the positive pull of the individual location rather than because they are pushed to that location by financial incentives. Ireland has now established a reputation globally as a location for advanced manufacturing, sophisticated business services and, increasingly, for leading research and innovation. Each of these areas will be of critical importance to our continuing success.

The timely provision of the major investments under the Plan, especially in infrastructure and education will be powerful assets to Ireland in attracting FDI. The implementation of the Regional Development Strategy set out in Chapter 3 will assist a better regional spread of FDI.

IDA Ireland continues to develop new value propositions and work processes that reflect Ireland's strategic competitiveness in an increasingly competitive market place. A key element in these value propositions is the greater emphasis on attracting and maintaining quality investment by focusing on, and influencing, the overall "*business ecosystem*". The business ecosystem recognises that it is the integration and interaction

of a wide range of areas and institutions in Ireland that ultimately determines our success in attracting high quality FDI. The implementation of this approach will be one of IDA Ireland's strategic priorities throughout the Plan period to 2013 and will include:

- Concentrating more resources on helping to underpin the competitiveness of existing overseas companies in Ireland, by encouraging and supporting existing clients to move up the value chain into higher value products and services and into higher order functions, such as R&D;
- Seeking out niches of business in which Ireland can carve out world market leadership;
- Developing new networks and relationships to work towards developments in new areas such as strengthening links between business and third level institutions and other research centers with a view to increasing innovation; and
- Pursuing high quality new FDI that is in keeping with the competitive characteristics of the evolving Irish economy today.

IDA Ireland and Shannon Development (in the Shannon Free Zone) will continue to use several instruments to promote FDI and to respond to the needs of existing and new client companies. Broadly speaking, instruments to promote FDI can be classified into two groups. The first refers to financial products such as capital, employment and RDI grants and the second, client services, such as the provision of information and advice, facilitation, representation and property/infrastructure solutions.

Investment of €1,632 million under this Sub-Programme will therefore be provided under the following measures:

- Financial Products; and
- Client Services.

Financial Products

A range of financial products to support investments by existing or new client companies will be provided over the period of the Plan. These grants will support capital, employment, training and RD&I investments. The number of RD&I projects supported will continue to increase substantially and this is the direction of future investment where third level graduates are required to fill a significant portion of the new jobs created and where highly qualified people are rewarded with good starting salaries and career prospects.

This is a result of both the evolution of the competitive characteristics of the economy and a policy shift towards attracting very sophisticated high skill and knowledge intensive activities such as RD&I. This trend coupled with the increasing quality of what Ireland can offer to investors in terms of skills, research capability, high quality infrastructure and business ecosystem, are essential to compensate for the lower EU regional state aid grant limits from 2007 onwards.

In addition, a strong focus will be maintained on maximising the capability of regional locations to absorb a greater proportion of high quality FDI. In line with the Regional Development Strategy in Chapter 3 this will be facilitated through a combination of fostering rapid progress on key infrastructure, skills development, and research capability in "Gateway" locations around the country that can act as the catalyst for the overall economic development of different regions.

Client Services

This measure will provide information and advice for activities like business plan development, economic appraisals and EU notifications as well as facilitation and representation services. High quality sites (including large scale-sites) and office or technology space will be provided in business & technology parks that are serviced with the infrastructure required for modern enterprise including telecommunications and

physical access. The development of value propositions, which are based on research and analysis will promote and support the movement of clients up the value chain by supporting them in adding strategic functions and deepening their competencies so that they increase their strategic value to the parent corporation.

Tourism Programme

Total indicative investment under the Tourism Programme over the period 2007-2013 is estimated at €800 million. This is broken down between the following Sub-Programmes:

- International Marketing — €335 million;
- Product Development and Infrastructure — €317 million; and
- Training and Human Resources — €149 million.

Strategic Context

Tourism is an important indigenous industry with a high employment intensity (150,000 direct jobs), generating an estimated €4.6 billion in foreign revenue earnings in 2006. Moreover, the income generated by tourism is largely retained within Ireland. The industry possesses the capacity and the capital stock to achieve further growth in the future and to help promote regional development at a time when many indigenous sectors face major structural and trading difficulties.

The more detailed strategic policy framework for the development of tourism is set out in the Report of the Tourism Policy Review Group "*New Horizons for Irish Tourism: An Agenda for Action*" which was published in September 2003 and subsequently endorsed by the Government and the tourism sector. This report identifies the nine key drivers of success, includes strategic targets for the 10 year period to 2012 and a two year action plan, incorporating over 70 recommended actions. Implementation Groups have been established to oversee development of the strategy and have reported progress regularly since then, including a scorecard of performance against the recommended actions.

The strategy incorporates not only specific policy measures in the areas of marketing, product development and human resources development, but also seeks to positively influence the broader agenda which impacts on sustainable tourism development e.g. access and internal transport, competitiveness, the natural and built heritage, the environment, the marine and rural development.

The key targets set out in the New Horizons Report, are to double overseas tourism revenue to €6 billion over the period 2003-12, with an associated increase in visitor numbers from just under 6 million in 2002 to 10 million in 2012. Targets have also been set for promotable visitor numbers, domestic tourism and regional spread. These targets will be subject to review as the Plan progresses.

In line with the strategic policy framework, the key Tourism State Agencies (Tourism Ireland and Fáilte Ireland) are rolling out annual and corporate plans incorporating a range of programmes and policies to deliver on the objectives. These include a new Human Resource Strategy for the Tourism sector which was launched in May 2005, a strategy for the international marketing of the island of Ireland as a tourism destination and a new product development strategy which was completed in July, 2006.

International Marketing Sub-Programme

The International Marketing Sub-Programme will invest €335 million in marketing Ireland abroad as a tourist destination. The rationale for the provision of Exchequer funding for the international marketing of Ireland as a tourism destination is well established on the basis of economic principles of market failure. The

industry itself undertakes product-specific complementary marketing activities through its own marketing budgets and in cooperative campaigns with the Tourism State Agencies. There is also a strong level of industry involvement in the development of annual marketing programmes through the Tourism Marketing Partnership when the industry's plans for its spend is attuned to Tourism Ireland's campaigns to ensure a cohesive and coordinated message. The key marketing objective over the 7 year period of the Plan will be to increase tourism revenue and visitor yield and to help achieve a wider regional and seasonal distribution of tourism business in line with the strategic targets set for the industry.

The strategy to achieve the objectives outlined above is to market Ireland internationally on an all-island basis as a tourism destination, supporting the marketing of new access routes and the international marketing of niche special interest products — particularly those which have a strong regional and rural impact. This will be funded through the Tourism Marketing Fund.

Funding in this area will be directed towards TV/radio/press/print advertising, direct marketing, trade and media promotions and production of tourism promotional literature and research. Over the life of the Plan there will be a particular emphasis on mobilising an increased use of e-marketing and websites in line with general industry trends and in building capacity/competitiveness in the industry and the State Agencies in this area. Periodic brand redevelopment will be required over the life of the Plan. Support will be provided also for the branding and marketing of special interest products with a particular emphasis on improving marketing capability within these areas. New and development markets and segments will be targeted in line with policy objectives to broaden the source market base and to open up opportunities in new markets such as China and India. Particular emphasis will be placed on research, evaluation of spend and the tracking and review of performance.

Tourism Ireland is a North/South body established under the Good Friday Agreement and is responsible for the marketing of the island of Ireland as a tourism destination. The allocation of funding for the marketing of the destination is provided on a 2:1 South/North basis. Fáilte Ireland is responsible for support for the marketing and development of special interest products and regional tourism, in association with Tourism Ireland.

Product Development and Infrastructure Sub-Programme

This Sub-Programme will make an investment of €317 million in enhancing our tourism product and infrastructure. While there has been a significant and welcome expansion in the product base of Irish tourism over the past fifteen years in particular, much of the investment involved has been in the provision of accommodation, associated facilities and conventional attractions providing passive engagement for visitors. Ireland now has a very modern stock of tourist accommodation and capacity is regarded, at present, to be at an optimum level given the current average room occupancy rate of 62% (2005) in hotels compared with the international norm of 70%. Product development strategy must also fully address and keep up-to-date with comparable attractions in the international tourism market.

In late 2005, Fáilte Ireland established an expert group to research and address the issue of product innovation and development in tourism. The objective was to provide guidance — for both public and private sector investment — in relation to the future market and sectoral trends, product development trends in competitor destinations, consumer expectations and reaction to existing products. The Group examined potential product opportunities, investor and stakeholder expectations, particular and specific regional development opportunities, as well as carrying out a national product audit and quality assessment. The report of the Group was completed in July, 2006 and its recommendations for tourism product development have been taken into account in developing this Sub-Programme.

The new product development strategy will be different in nature to previous programmes, taking into account the impact of investment in recent years, the absence of EU Structural Funds and a more rigorous EU State Aids regime for support for private sector investment.

The strategy proposes a framework and policy guidance for the long-term development of the tourism product in Ireland. It will cover areas that include:

- capital investment in visitor attractions and visitor activity facilities;
- infrastructure and services relevant to tourists; and
- the physical environment.

On the basis of the analysis, the new strategy will be market-driven and will optimise the industry's areas of strength so as to capture the maximum economic benefit.

There will be no support for the provision of standard accommodation. Investment will rather be targeted on tourism infrastructure, major new events and other innovative products that will attract additional visitors.

The focus will be on providing high-quality ancillary services and integrating existing products to provide a stimulating and rewarding product for consumers.

This NDP will support a number of measures including:

- i. a fund to support tourism infrastructure;
- ii. a fund for encouraging product innovation, feasibility studies and the development of a small number of major annual events; and
- iii. a fund to support investment in "soft adventure" products, heritage and rural culture.

The provision of a National Conference Centre in Dublin, in line with the commitment in the Government's Agreed Programme, will constitute an essential element of national tourism infrastructure. This Sub-Programme includes provision for the PPP funded capital cost of the NCC. The Conference Centre, when fully operational, is expected, according to a number of independent estimates, to generate additional foreign revenue earnings of between €25 million and €50 million per year.

Training and Human Resources Sub-Programme

The Tourism Training and Human Resources Sub-Programme will invest €149 million in this area. The Human Resource development strategy published by Fáilte Ireland in May, 2005, "Competing Through People", recognises that tourism must look to the people working in the industry to serve as a principal source of competitive advantage. It is estimated that there will be an additional 6,000 jobs created in tourism annually for the next 10 years. This will require careful and targeted investment in the education and training of the tourism workforce, both domestic and non-national, over the life of the Plan. It will involve, in addition to sustaining structured education opportunities in the third level colleges and Institutes of Technology, the roll out of initiatives, in collaboration with organisations recognised as experts in the personnel, marketing and financial management areas, aimed at improving management capability and networking in SMEs and micro-enterprises at regional level. The format, delivery and location of such programmes will meet existing patterns of demand and minimise the disruptive effect of formal off-site training for certain categories of employees.

Agriculture and Food Development Programme

The Agriculture and Food Development Programme will involve investment of some €8.0 billion over the period of the Plan on three Sub-Programmes:

- Agriculture and Forestry Competitiveness — €1,711 million;
- Enhancement of the Environment and Countryside — €6,028 million; and
- Food Industry (capital infrastructure and marketing) — €289 million.

It should be noted that some of the investment under this Programme will attract EU co-funding under the EU Rural Development Programme which is being negotiated with the European Union.

Strategic Context

Investment in the Agri-Food Programme will be guided by the strategy for developing the agriculture and food sector in the Agri-Vision 2015 Report. The strategy is based on the creation of a competitive, consumer-focused agri-food sector, which will contribute to a vibrant rural economy, society and environment and exploit opportunities in non-food areas.

The agri-food sector has been transformed in recent years by changes, in the EU policy framework, in consumer tastes and demands, in international food markets as well as structural change in agriculture and the food processing industry. The process of change will continue to create more competitive EU and world commodity and food markets which will demand more complex and innovative responses on an on-going basis. These trends will be intensified by increased trade liberalisation, consolidation at retail and production levels, and increased competition from lower cost production regions of the world which, taken together, represent major challenges for the future.

The industry's future competitiveness will be based on efficiencies and a strong knowledge base across the entire supply chain. Product differentiation and the capability to satisfy evolving consumer requirements will be essential. On-going improvements in infrastructure, technology and innovation will be the key to the development of efficiency and growth in a changing marketplace.

Against this background, a range of measures will be implemented based on the central themes of

- innovation, to meet the demands of a fast changing world;
- competitiveness at farm and processor level, so that Ireland can compete in high value EU and world markets; and
- an emphasis on the consumer, focusing on high value markets in terms of food safety and quality, animal welfare and environmental responsibility.

Structural improvements, higher levels of knowledge and skill, both at farm and industrial level, increased efficiency and innovations together with use of cutting-edge technology will all be necessary for the sector to thrive in the new environment. This will be facilitated by the measures in this Programme and the support for agri-food research in the Science, Technology & Innovation Programme. The latter is particularly relevant in ensuring that the industry is underpinned by a sound scientific and innovative base that will allow anticipation of and response to the needs of the market.

The agri-food sector will make an increasingly important contribution to environmental and social sustainability. The public good aspect of agriculture such as its contribution to the landscape, biodiversity and heritage is recognised in the "European model of agriculture" which is based on the principles supporting the viability of farm families and encouraging the provision of environmental and other benefits to the wider community. The Agri-Vision 2015 Action Plan recognises the multifunctional role of agriculture and emphasises that increased competitiveness must be achieved in tandem with respect and enhancement of the environment. That role is also reflected in the EU rural development framework, which stresses agriculture's importance in terms of issues such as water quality, biodiversity and climate change.

Agriculture and Forestry Competitiveness Sub-Programme

Some €1,711 million will be invested in measures that will address structural weaknesses, the challenges posed by changing EU and other policies and the development gaps that need to be filled to maximise the potential of this sector.

Structural Improvement Measure

Poor age structure, coupled with low levels of appropriate education of many farmers, has been identified as a structural problem for Irish agricultural development. With continuing pressure on farmers to maintain viability and improve their competitiveness, the importance of attracting young and trained people into farming remains key to the sector's long-term future.

In order to promote continued structural reform in the agricultural sector, and thereby enhance competitiveness and sustainability, two complementary measures will be continued. Support for the setting up of young farmers will be provided to encourage the continued rejuvenation of the farming profession. Linked to this support will be a measure to facilitate the early retirement of older farmers and farm workers with the aim of creating opportunities for younger farmers to enter farming or to increase/consolidate their holdings.

Education and Training Measure

Teagasc will provide continued support for agricultural training in response to the increased competitive pressures in farming. There will be two elements to this support. Young entrant training will target young people seeking careers in farming, agri-business and agri-services sectors while adult farmer training will contribute to the improved viability and sustainability of farms. Provision will also be made for direct assistance to bodies providing educational and training schemes for workers and trainees in the equine sector.

Teagasc Capital Investment

Teagasc will invest in facilities required to enable agricultural colleges and local training centres to achieve best educational practice and provide students with a top class-learning environment.

Teagasc Advisory Services

The services will address both the needs of commercial farmers and the growing number of farm families who will need supplementary income from either more efficient farming, supplementary farm-based alternatives or businesses, or an off-farm job. They will also reflect the changing policy and regulatory environment facing farmers in the future, particularly in regard to product quality, the environment and the need for increased efficiency and competitiveness at farm level.

The services will:

- i. address the realities of the post-decoupling farming and WTO regime, helping farmers to produce food in an environmentally sustainable manner that complies with relevant standards;
- ii. foster innovation and provide cutting edge technology to those highly commercial farmers who can successfully compete in a more liberalised world food market. The service will focus on providing technical, financial and labour efficiency advice together with assisting in achieving greater scale; and
- iii. provide training and advice to give farming families the competence to set up new on-farm enterprises and/or to pursue other options for the future.

On-Farm Capital Investment Measure

The revised Farm Improvement Scheme will assist farmers with the capital costs of modernisation. Support will be provided for investments that improve overall performance and market orientation, while respecting applicable EU and national standards. It will include sub-measures covering the potatoes, horticulture and organics sectors and related off-farm investment in the latter case. Particular emphasis will be attached to

projects with a renewable energy element. In the context of energy crops, support will be provided for the establishment costs associated with the planting of miscanthus.

Support will also be provided under this heading for the revised Farm Waste Management Scheme, introduced in March 2006. The Farm Waste Management Scheme makes a vital contribution to Ireland's programme for meeting the requirements of the EU Nitrates Directive. It encourages, through capital grant assistance, the development of facilities for the storage of farm wastes during periods when weather and soil conditions make water sources particularly vulnerable to leaching of nitrates spread on land. It contributes to the objectives of reducing water pollution caused by nitrates from agricultural sources, preventing further such pollution, improvement of water quality and safety and preventing eutrophication of rivers and lakes.

Improving the Competitiveness and Quality of Agricultural Products

To maximise the potential of breeding and production of the cattle, sheep and equine sectors, support will be provided to ensure continued improvement in quality through breeding improvement and development actions.

The Beef Quality Assurance Scheme will also support the objective of continued penetration in high value export markets. The aim is to increase participation to 30,000 farms by end of 2008. A similar Lamb Quality Assurance Scheme will also be established.

Downstream Investment in the Forestry Sector

From the late 1980s, the level of afforestation in Ireland grew significantly. These forests are now reaching the stage of first thinning. The majority of this planting was by farmers with little background in forestry, posing many challenges in terms of the skills and training required to maximise the returns from the national forest resource. Against this background, a range of interventions will be established.

Enhancement of Environment and Countryside Sub-Programme

Some €6,028 million will be invested in addressing the public good aspect of the agri-food sector and, in particular, its contribution to the environment and the countryside, including the enhancement of biodiversity, water quality, heritage and environmentally-friendly systems of farming. The continuation of farming in the disadvantaged agricultural areas and well-planned forestry also contribute positively to biodiversity. Forestry also has an important role to play in climate change mitigation.

Compensatory Allowances Measure

Compensatory allowances seek to compensate those farming in agriculturally disadvantaged areas. 75% of Ireland's utilisable agricultural area is currently classified as disadvantaged and this classification will remain in place until at least 2010. The new EU Rural Development Regulation recognises the continuing need to support such areas. The scheme ensures continued agricultural land use thereby contributing to maintaining the countryside. The compensatory allowances scheme is area-based. Support will be provided based on the degree of disadvantage.

Rural Environment Protection Scheme (REPS)

REPS will support Irish farmers who enhance the environment to a level above mandatory requirements. Payments will be made under the scheme to farmers who, on a voluntary basis, make agri-environmental commitments that go beyond the relevant national and EU mandatory environmental requirements. Participants in REPs will also be eligible to receive support for the implementation of Natura 2000.

Suckler Cow Animal Welfare/Breeding

From both an animal welfare and competitive perspective, it is desirable to improve animal welfare standards up to and including weaning stage in the suckler herd and generally to improve the quality of the national beef herd. The aim is to encourage farmers to adopt high standards of animal welfare by providing support where animal husbandry goes beyond the relevant mandatory standards and current working practices. Breeding quality will also be improved through support for participation in the Irish Cattle Breeding Federation's animal events recording system and to upgrade the genetic merit of female cattle breeding stock using the results of the data collected.

Organics

Direct support will be available to organic farmers both during conversion and after full organic status has been achieved. Previously, such support payments were available only through full participation in REPS.

Afforestation

With only 10% of land area under forestry, Ireland remains one of the least afforested countries in Europe. Apart from economic gains from increased afforestation there are also environmental and social gains including the benefits of an indigenous renewable energy source. Support will be provided for continued afforestation and the integration of forestry with agriculture, adopting a whole-farm approach and encouraging the establishment of agri-forestry systems. The cultivation of fast-growing species, for the purposes of biomass production, will also be separately addressed. Support will be provided for practices that are required to prevent damage by deer and squirrel and practices that are required to complement objectives under the Birds and Habitats Directives. Investments related to environmental or public amenity objectives will also be supported.

Food Industry Sub-Programme

The Food Sub-Programme will invest €289 million in capital infrastructure and marketing. In addition the sector will have access to the full range of enterprise supports available to other sectors, including research and development, technology initiatives and human resource development programmes. Food and drink is one of Ireland's most important indigenous sectors, accounting for 50,000 jobs directly and a multiple of that number indirectly dispersed throughout rural areas. The Agri-Food sector accounts for some 8.6% of GDP at factor cost, equating to over €12 billion of Gross Valued Added (GVA) in the economy for 2005. Exports of over €8 billion in 2006 represented a very significant source of foreign earnings.

With the increased emphasis on health, nutrition and convenience, the industry must create the optimum environment for enterprise, innovation and marketing in order to respond to consumer demands. The investment provided by way of capital investment and marketing will address the specific needs of the industry in a targeted way and enable it to maximise this potential through improved competitiveness and market orientation and by responding to changing consumer requirements.

Government and State agencies will work together on a partnership basis with this key indigenous sector to drive innovation and new product development to meet ever-changing consumer demand. The investment in R&D will enable the Irish food and drink sector to embrace science and technology so as to provide valuable and unique solutions in emerging product areas.

Production of food to the highest possible standards remains top priority and the Department of Agriculture and Food, in close co-operation with the Food Safety Authority of Ireland and other relevant Government Departments/agencies, will continue its monitoring, surveillance and inspections services along the links of the food chain.

Capital Investment

Support will be provided for capital investments in the marketing and processing of agricultural products where there are real market opportunities. This will consequently ensure the repositioning of the industry as a diverse modern, innovative and market focussed food sector in a manner consistent with the Department of Agriculture and Food's Agri-Vision 2015 Action Plan. Such investment will be directed towards improving structure, scale and efficiency of production of high quality product.

Marketing

An understanding of market and consumer requirements, strong marketing expertise and identification of emerging opportunities are crucial to the sustainable development of the Irish food, drinks and horticulture sectors at this time of huge market and competitive challenges. Strategic generic assistance will be made available to the agri-food sector by Bord Bia by way of a portfolio of leading edge market intelligence, promotion and market development services for companies engaged in developing increased and value-added business, particularly in Continental EU and Asian markets. Small and speciality food enterprises will be supported through specific services tailored to their needs. Funding will also be made available for generic initiatives to promote consumption of fruit and vegetables and to promote the marketing by industry of new and innovative products to cater for new consumer tastes and needs.

Rural Social and Economic Development Programme

Total indicative investment under the Rural Social and Economic Development Programme over the period 2007-2013 is estimated at €844 million.

The Rural, Social and Economic Development Programme will comprise the following Sub-Programmes:

- Rural Social Scheme — €214 million;
- CLÁR — €141 million;
- Western Investment Fund — €28 million; and
- LEADER/Rural Economy — €461 million.

Strategic Context

The chapter on the 'Development of the Rural Economy' outlines the challenges facing rural communities in the coming years. One of the main challenges will be achieving an appropriate balance between supporting farming as the traditional source of income in rural areas on the one hand — and fostering sustainable economic diversification in rural areas on the other. Measures to address these challenges are set out in the Rural Social and Economic Development Programme and in the Agriculture and Food Development Programme referred to above.

Rural Social Scheme Sub-Programme

Over the course of the Plan, this Sub-Programme will provide €214 million in income support to low-income farmers and fishermen, as well as certain services of benefit to local communities.

The Sub-Programme will be delivered at a local level by the LEADER companies and in the Gaeltacht by the LEADER companies, in conjunction with Údarás na Gaeltachta. Work undertaken by participants on the Scheme will include projects relating to (i) the maintenance and enhancement of way-marked ways, agreed walks, bog roads etc.; (ii) village and countryside enhancement projects (iii) maintenance and caretaking of community and sporting facilities and (iv) care of the elderly, community after-school support groups and community pre-schooling support groups.

CLÁR Sub-Programme

The CLÁR Sub-Programme will provide €141 million for regeneration measures targeted at areas of specific population decline. This programme will co-ordinate existing sources of public and private finance and will provide additional stimulus funding for the provision of small scale economic and social infrastructure to help rural communities overcome local difficulties and achieve access to a range of essential services such as water supply, sewerage disposal, road access, broadband communication, community and economic infrastructure, etc.

Western Investment Fund Sub-Programme

The Western Investment Fund (WIF), which is operated by the Western Development Commission, was established to address market failure in private sector risk capital funding mechanisms. The Western Development Commission is a statutory body charged with promoting, fostering and encouraging economic and social development in the Western Region comprising counties Donegal, Sligo, Leitrim, Mayo, Roscommon, Galway and Clare. The WIF provides funding by way of ordinary share capital, preference share wealth and loan stock or combinations thereof. In the period 2000-2006, it invested €17 million in 66 enterprises. Over the period 2007-2013, it is expected to invest some €28 million in similar enterprises.

Leader/Rural Economy Sub-Programme

This Sub-Programme, which will be co-funded by the EU, will invest €461 million over the period of the Plan and will focus on a number of measures as set out below:

Rural Recreation

Under the NDP, it is envisaged that action will be taken to develop countryside recreation, along the lines of the recent Comhairle na Tuaithe report on the development of a National Countryside Recreation Strategy, which sets out the broad principles for managing sustainable countryside recreation into the future. This will include the development of quality rural tourism products, through the LEADER Groups, the Rural Social Scheme and the Community Services Programme. The Department of Community, Rural and Gaeltacht Affairs will consult with the Department of Arts, Sports and Tourism, and other State agencies such as Coillte, Bord na Móna and Iarnród Éireann in planning developments in this area.

Rural Enterprise

This measure will provide for the creation of new rural micro-enterprises and development of existing initiatives focusing on the development of indigenous rural resources in artisan food, forestry, marine, rural/agri-tourism, cultural heritage and community promoted enterprises. Support will also be provided for further diversification into non-farming activities by farm families, including expansion of the agri-tourism initiative building on the work of Comhairle na Tuaithe in the development of a Countryside Recreation Strategy.

Rural Development Fund

The Rural Development Fund will invest in a broad range of projects, including supporting research by organisations and third level institutions on rural development issues to provide information and advice to policy makers. A number of pilot schemes aimed at encouraging community development, including training to increase employment skills and enterprise opportunities for rural dwellers, will also be supported under the Fund.

Development of Local Infrastructure And Services Essential To Community Well Being

Lack of adequate cultural and leisure facilities in rural communities is a serious impediment to the development of local rural communities. While the needs of more remote rural communities and peri-urban

areas may differ, support will broadly address the provision of amenity and leisure facilities, cultural activities, arts facilities, local sport, community and recreational infrastructure.

Village and Countryside Enhancement

Villages and small towns are the focal point for a significant section of the rural community and, as such, must be a priority for infrastructural development. The focus for improvement will be on the provision of small-scale infrastructure aimed at enhancing the environmental, amenity and surface structural aspects of these communities.

Environmentally Friendly Initiatives and Conservation of Areas of High Natural and Cultural Value

Priorities will include the restoration of ancient structures, habitations and protection plans for areas of high natural value such as locally important geological or ecological sites. Assistance for such sites will be addressed in conjunction with the development of local tourism products.

Adaptation of alternative sustainable energy sources appropriate to the specific needs of local rural communities will be supported.

Training, Skills Acquisition and Animation

Priority will be given to actions aimed at enhancing the training levels and skills capacity of rural dwellers. These actions would encompass the need to provide support to raise ICT awareness to expanding use of electronic public services, as well as initiatives to increase the involvement of rural dwellers in local community and economic activity.

Farm Relief Services

This measure will further develop the farm relief services through better training for the operators; research and development and improved infrastructure.

Gaeltacht and Islands Development Programme

The Gaeltacht and Islands Development Programme will provide €457 million in investment towards the development of the Gaeltacht, and off-shore islands and will fund three Sub-Programmes as follows:

- Gaeltacht Sub-Programme — €98 million;
- Údarás na Gaeltachta Sub-Programme — €233 million; and
- Islands Sub-Programme — €126 million.

Continued investment in upgrading Gaeltacht Infrastructure will remain a priority for the duration of the Plan, as well as initiatives to maintain and strengthen the use of the Irish language. The primary goal for the period will be to continue to respond to the challenges that Gaeltacht communities face in a changing society and to provide the necessary supports to ensure that critical infrastructural deficiencies are overcome so that real and sustained progress can be achieved.

The three Sub-Programmes will target investment at areas, which of their very nature, are geographically peripheral and which are of unique importance in view of the linguistic dimension. This Programme will complement the efforts of other Plan investment to promote an integrated strategy for regional development, assisting our major urban centres, our towns, our villages and our rural areas. The Údarás na Gaeltachta Sub-Programme will focus on the promotion of enterprise development in Gaeltacht areas. The objective of

the Islands Sub-Programme is to improve the fabric of island life through support for environmentally sustainable social and economic development, thus enhancing the attractiveness of the islands as places to live and work and as tourist destinations.

Gaeltacht Sub-Programme

This Sub-Programme will provide €98 million for capital investment in the Gaeltacht. The Sub-Programme is designed to overcome the challenges facing Gaeltacht communities such as:

- infrastructural deficiencies that are an impediment to social and economic progress;
- the continuing decline in traditional employment opportunities; and
- the threat to the survival of Irish as a living community language.

The Gaeltacht Improvement Schemes aim to promote linguistic, cultural and social development, as well as supporting economic development. Through investment in Gaeltacht strategic roads, piers, harbours and other infrastructural improvements assisted by the investment priorities of Údarás na Gaeltachta, the core objective of maintaining a vibrant and culturally rich Irish-speaking communities can be met.

The continued development of an enhanced network of high quality roads in the Gaeltacht will take place under this Sub Programme, resulting in improved access and enhancing the attractiveness of the region for inward investment and tourism. The Sub-Programme will also assist the development of walking, cycling, angling, cultural, language and other activity based tourism.

Implementation of the measures outlined will have a positive impact on achieving balanced regional development. The correction of infrastructural deficiencies in peripheral and disadvantaged areas in the Gaeltacht will bring lasting social and economic benefits to these communities. As the Gaeltacht is almost exclusively rural, with no urban centres greater than 1,500 persons, villages are focal points and therefore village enhancement works under Gaeltacht Village Renewal will have positive benefits.

Údarás na Gaeltachta Sub-Programme

Údarás na Gaeltachta is the designated authority with responsibility for economic, linguistic and cultural development of all Gaeltacht areas. The Údarás na Gaeltachta Sub-Programme will involve an investment of €233 million in the promotion of enterprise development in Gaeltacht areas over the period of the Plan, broken down into two measures, Enterprise Development and Labour Force.

There will be three significant aspects to the Sub-Programme:

- fostering indigenous enterprise across a wide range of sectors and creating employment through attracting external investment;
- building new development platforms for specific sectors requiring substantial capital investment; and
- improving the economic, social and cultural infrastructure of the Gaeltacht.

Enterprise Development Measure

Enterprise Development will focus on the technological and services sector. Enterprises will be encouraged to improve efficiency and competitiveness through product development and enhancing workforce skill levels. There will also be a focus on natural resource based sectors such as cultural tourism, seaweed processing and the development of added value products in fish farming.

Údarás is moving from lagging sectors towards the untraded and internationally traded service sectors. In tandem, it is also adjusting its allocation of resources to that of providing for:

- Multi-functioning Facility Development; and
- revised Financial Assistance to Industry.

Multi-functioning Facility Development is designed to optimise resource allocation. It will involve the funding of a small number of multi-functional facilities encompassing services such as a library, crèche facility, cultural/arts block, modern office type accommodation and a small innovation centre community sports and leisure facilities. Three to four projects of this nature will be replicated in the Gaeltacht over the term of the NDP.

Financial Assistance to Industry will focus on job creation in language-based employment, modern traded services, marine resources and cultural tourism. There will be a focus also on sectors such as music, the arts and linkages to third-level institutions and other cultural and educational institutions at national and international level.

Workspaces and incubation centres will be made available for small businesses and expertise will be developed in management, mentoring and business development skills. A particular emphasis will also be placed on realising the full potential of indigenous natural resources, e.g. by exploiting marine activities.

Labour Force Measure

In line with the Údarás Strategic Development Plan 2005-2010, this measure will focus on facilitating contemporary education and lifelong learning opportunities. Continued support will be provided for the provision of third-level education through Irish in centres in the Gaeltacht. Údarás will increase expenditure on upgrading skills and on initiatives that enhance the capacity and quality of the workforce to increase the competitiveness of the existing companies and to ensure that there will be a suitable labour pool available to attract modern service industries.

Islands Sub-Programme

The Islands Sub-Programme will invest a total of €126 million in developing and sustaining our island communities.

The primary goal for the period will be to continue to respond to the challenges that island communities face in a changing society and to provide the necessary supports to ensure that critical infrastructural and service deficiencies are overcome so that real and sustained progress can be achieved.

A continued programme of investment in island infrastructure and services is a prerequisite if the full potential of our islands as part of our national heritage is to be realised.

Issues to be addressed under this Sub-Programme include the completion of a programme of pier construction commenced under NDP 2000-2006, the provision of modern facilities for tourists and islanders using ferry ports, the continued improvement of ferry and air services, the promotion of small enterprises and the development of environmentally sustainable energy solutions on the islands. Investment will also continue to be made in social, health and educational facilities on islands.

A flagship measure under this Sub-Programme will be the implementation of major improvements to the piers and harbours of the three Aran Islands. Resources will be concentrated on the measure with the aim of ensuring that these improvements will be completed within the current decade.

Marine and Coastal Communities Programme

The Marine and Coastal Communities Programme will invest €442 million in the following three Sub-Programmes over the period of the Plan:

- Seafood Development — €216 million;
- Fisheries and Coastal Infrastructure — €203 million; and
- Coastal Protection — €23 million.

Strategic Context

In the marine sector, growth and development faces important regulatory and environmental hurdles. Significant changes are required if the industry is to grow in a more competitive international food market. The scale of development in the economy generally has posed challenges for management of the Irish marine environment and coastal infrastructure.

€216 million is earmarked for the Seafood Development Sub-Programme and a further €203 million for the Fisheries and Coastal Infrastructure Sub-Programme — in all €419 million for this important sector. The strategic vision as set out by the Seafood Strategy Review Group⁵ will determine and prioritise the allocation of this funding in the NDP. A further €118m may be made available over the life of the Plan depending on the willingness of the sector to undertake and co-operate with, in a verified manner, changes in the industry. The realisation of the leveraging of private sector funding, envisaged in the Cawley Report,⁵ will also need to be taken into account. The prioritisation and allocation of funds will be based on a detailed assessment of the likely impact of the recommendations.

The central goal is to ensure the long term economic, social and environmental sustainability of this industry, thus maintaining the value of its activity to the coastal and rural communities who rely upon it, and to the economy as a whole.

The imperative for the sea fishing sector will be the maintenance of economically and environmentally sustainable levels of fishing, by balancing capacity with available resources and achieving a better return on this volume through increases in unit value. Key to the success of the industry as a whole in the future will be the differentiation of Irish seafood products from the international competition in an increasingly discerning market place, both at home and abroad.

There is substantial scope for increasing fishing activities operating out of Irish harbours through exploiting our geographical competitive advantage. Development works will continue to be required to improve fishery harbour infrastructure to ensure the viability of the fishing industry into the future, to bring the Fishery Harbour Centres up to international practice, to reduce congestion at the harbours and improve safety for the fisheries sector. Developments will also enable the maximisation of the long-term sustainable use of the fisheries resource by overseas and domestic anglers and other recreational users by providing and improving access to existing inland and sea angling fisheries and developing new fisheries. The safety issue is a priority at the major state owned fishing centres.

The overall goal of coastal protection is to ensure the sustainable development and management of the marine coastal zone by addressing priority coast protection requirements.

⁵ The Seafood Strategy Review Group was established by the Minister and the Minister of State at the Department of Communications, Marine & Natural Resources in June 2006 with the objective of consulting with all stakeholders to devise a strategy for the 2007-13 period for the delivery of a sustainable and profitable seafood industry in Ireland. Its recommendations have informed the strategic investment priorities identified here.

Seafood Development Sub-Programme

The Seafood Development Sub-Programme will invest €216 million over the period of the Plan. Drawing on the recommendations of the Cawley Report, the vision for the Irish seafood industry by 2013 is one where all sectors can be described as “*a sustainable, profitable, competitive and market-focused seafood industry making the maximum long-term economic and social contribution to coastal communities and Ireland as a whole.*”

The achievement of this vision will require a set of integrated, market led actions to improve competitiveness and profitability across all the sectors of the industry — sea fishing, aquaculture, processing and marketing — by targeting investment so as to achieve the highest possible level of value generation within the Irish seafood industry.

The future success of the industry will lie in the differentiation of Irish seafood products from the international competition in an increasingly discerning marketplace. This must be underpinned by environmentally responsible fishing practices, certified environmental management systems, internationally accredited quality assurance schemes and market led innovation, thereby ensuring that the industry continues to act as an important economic engine for Ireland’s coastal communities.

The Irish seafood industry is based on the utilisation of a high quality, indigenous natural resource, which has excellent potential for added value. The industry is already worth over €700 million to the Irish economy annually and provides jobs for 12,000 people.

The period of NDP 2000-2006 saw the beginning of the process of restructuring and transformation of the industry across all its sectors in the face of a range of developmental challenges, primarily relating to declining stocks and a consequent structural imbalance at catching and processing levels. This has led to weakening profitability and low levels of investment in R&D and value added development, with the result that the industry is not at present strongly positioned to take full advantage of favourable market opportunities where the global demand for quality seafood offerings continues to grow. The following measures under this Sub-Programme will address the key strategic development priorities.

Sea Fisheries

The key objectives of this Measure will be to manage the transformation required in the fishing fleet so as to achieve a balance between fleet capacity and the resources available. It will also support quality supply that is reliable and competitive and the actions required in environmental management and the maintenance of the economic and social fabric of fishing communities.

Aquaculture

This Measure will support the application of technological innovation to further develop environmentally sustainable techniques, including organic farming, and achieve successful diversification into new species, while ensuring the highest international quality standards are met. It is anticipated that the period 2007-13 will see the emergence of a smaller number of larger operators in this sector, working on greater economies of scale.

Seafood Processing

To accelerate the development of scale, competitiveness and investment in R&D and innovation, the Seafood Processing Measure will adopt a “Step-Up” approach, aiming to attract investment from the wider food processing industry, to facilitate the restructuring of the sector and the development of an appropriately scaled processing industry capable of competing within an increasingly cost competitive market and of attracting investment from the wider food industry.

Seafood Marketing

The main objective of the Seafood Marketing Measure will be to exploit the growth potential for Irish seafood up to 2013 in order to achieve a targeted sales increase of 44% in exports and a minimum 10% growth in domestic sales. In order to achieve this objective, it is essential to differentiate Irish seafood as a premium proposition in key markets. This will require support for innovation and value-added development and the achievement of internationally recognised standards of excellence. It will also require strategic account management and a strengthening of Ireland's market research and intelligence capability.

The Measure will fall under the direct responsibility of Bord Iascaigh Mhara but will be implemented in close partnership with both Enterprise Ireland and Bord Bia through the strengthening of existing inter-agency co-operation agreements.

Seafood Training

To complement the above measures, the Seafood Training Measure will address specific training needs arising from: the rapidly changing EU and national fisheries policy and regulatory framework; competitiveness; sustainability; traceability and environmental impacts as well as focussing on quality and market innovation in support of the aims of the Seafood Development Sub-Programme

Fisheries and Coastal Infrastructure Sub-Programme

Some €203 million will be invested under the Fisheries and Coastal Infrastructure Sub-Programme to ensure the future viability of the fishing industry, to bring the Fishery Harbour Centres up to international practice, to reduce congestion at the harbours and to improve safety for the fisheries sector.

Fishery Harbour Development

There is substantial scope for increasing fishing activities operating out of Irish harbours through exploiting our geographical competitive advantage. As energy costs increase the global fishing industry will have to change patterns of traveling long distances to fish off Ireland. In order to capitalise on location and to attract a greater proportion of EU landings our harbour infrastructure will be developed to facilitate increased landing and downstream activities at the harbours, especially at the five Fishery Harbour Centres, Howth, Dunmore East, Castletownbere, Ros-An-Mhíl and Killybegs. Subject to feasibility and prioritisation of resources, other strategic harbours such as Greencastle, Kilmore Quay and Cromane will be developed to meet increased demands.

The current situation of many fish stocks and the need for sustainable management will continue to constrain the output from the Irish Sea Fishing Fleet. In that context, and in order to sustain the communities dependent on fishing, it will be necessary, in addition to attracting business from other fleets, to maximize the scope for diversification to marine leisure and other activities through the utilisation and development of our Coastal infrastructure. It will therefore be necessary during the Plan period to develop other industries such as aquaculture, tourism and the leisure industry to provide alternate means of employment for communities dependant on fishing. The development of port infrastructure and port service facilities will help to accommodate this.

Coastal Protection Sub-Programme

Some €23 million will be spent under this Sub-Programme to protect the coastline from erosion and manage the problem of coastal flooding so as to minimise its impact on the commercial and social activities of coastal communities.

The planned investment under the NDP will be a mixture of risk evaluation, development of procedures and guidance for scheme selection, Planning and Development assistance and capital projects of both a hard and soft engineering nature. In areas where protection is not provided, the establishment of surge forecasting and warning systems can help to significantly mitigate flood damage. A list of prioritised capital projects to be carried out under the Plan will flow from the information framework developed under the Plan.

Funding will be provided for the completion of the National Coastal Protection Strategy Study. This will identify areas at risk from erosion and flooding and will quantify damages arising. The situation, with or without global warming induced sea level rise, will be examined. Initial results from a pilot area on the East coast are expected to be available in Spring 2007.

In areas where the necessity for protection schemes are identified, funding will be provided to the relevant Local Authorities by means of a grant payment. Funding will be on a 75% contribution by the Department of Communications, Marine and Natural Resources and 25% contribution from the Local Authority.