IRISH SUCCESS IN THE EUROPEAN UNION FRAMEWORK PROGRAMME FOR RESEARCH AND TECHNOLOGICAL DEVELOPMENT

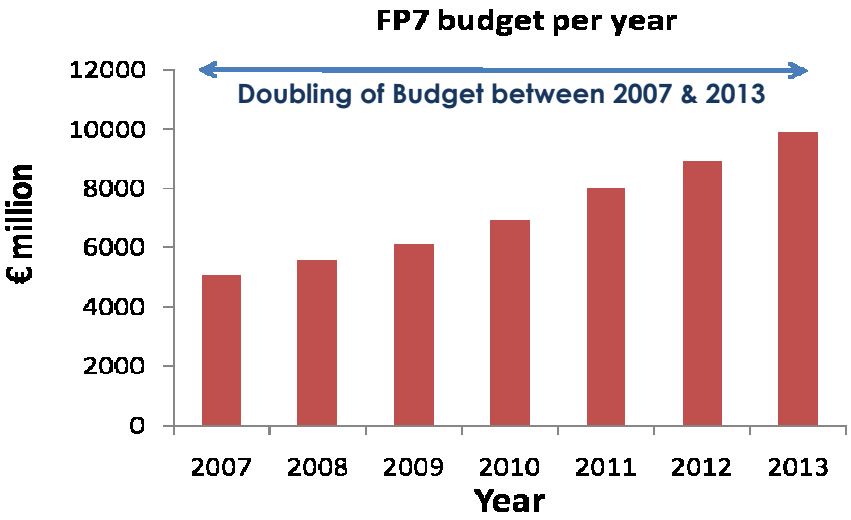
Introduction

The EU Framework Programme for Research and Technological Development has always been an important element in the internationalisation of Irish research. Ireland participated actively in the Sixth Framework Programme (FP6), which spanned the period 2003 to 2006 with a budget of approx €17 billion, and Irish researchers and companies were successful in securing approximately €200 million from the programme.

The EU research agenda continues to complement our national priorities with an emphasis on moving new discoveries from the research stage to the marketplace, allowing Ireland to play our part in building a low-carbon economy and tackling diseases like cancer and Alzheimer's.

The current Seventh Framework Programme (FP7) offers Ireland's SMEs, multinationals, and research institutions valuable opportunities to participate in high-calibre research collaborations with our European counterparts.

With a budget of approximately €50 billion over seven years (2007 to 2013), FP7 is the most ambitious programme to date in terms of scale and scope. Moreover, as economic conditions have deteriorated nationally (and internationally), FP7 comes into its own as a non-exchequer funding source. Budget stability is guaranteed to 2013; and it is growing year on year, 2007: €5bn; 2008: €5.5bn; 2009: €6bn; 2010: €7bn; 2011: €8bn, 2012: €9bn; 2013: €10bn.



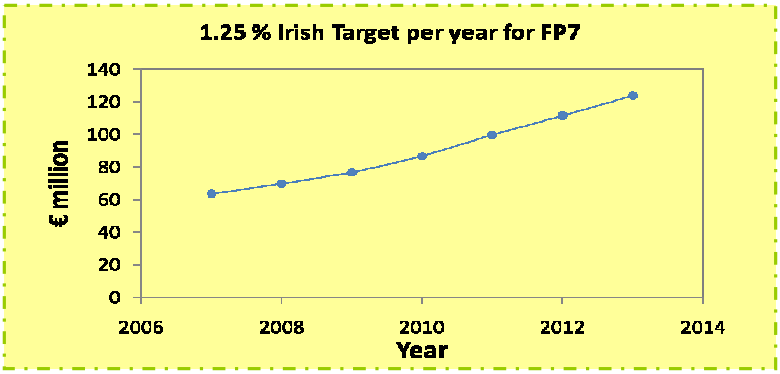
FP7 is built largely around collaborative research (Cooperation) and mobility of researchers (People). However, it also contains a number of new elements, the most important of which is "Ideas" which provides the funding for the new European Research Council (see Annex 1 for the overall structure of the programme).

Ireland is well positioned for FP7

Based on recent national investment in research, Ireland is participating in the Framework Programme from a far stronger position than ever before. A critical mass of research activity has developed in both the public and private sectors and the design of the current programme (FP7) suits the needs of Irish researchers in many ways. It has been adapted to encourage industry participation, the application process has been simplified, industry-specific targets have been set and higher funding rates have been agreed.

The FP7 National Support Office (www.fp7ireland.com), led by the National Director for FP7 (based in Enterprise Ireland), is charged with optimising Irish involvement in the programme and a

target of €600 million in research funding to Irish researchers and enterprises has been set for the period 2007 to 2013. Our national target reflects the year on year growth in the FP7 budget and it equates to 1.25% of the total budget available.



The National Support Office provides a range of incentives for FP7 participation including travel support for academics, proposal preparation support for academic coordinators and feasibility study support for companies (as participants or coordinators). The Office coordinates the national support network for FP7 which has 11 member organisations; the Department of Agriculture, Fisheries & Food, the Department of the Environment, Heritage & Local Government, Enterprise Ireland, the Environmental Protection Agency, the Higher Education Authority, the Health Research Board, the Irish Research Council for Science, Engineering & Technology, the Irish Research Council for the Humanities and Social Sciences, the Irish Universities Association, Sustainable Energy Ireland, Science Foundation Ireland.

Ireland's Performance To Date in FP7

In the period from commencement of FP7 in December 2006 to October '09, 2,322 applicants from Irish-based organisations took part in proposal submissions requesting European funding. From these proposals, 546 applicants were successful receiving €152m, giving an overall Irish success rate of 23.51%, above the European Member State average of 21.68%. The high level of activity of Irish researchers (academic and industry) and the Irish success rate ahead of the overall EU average are very positive indications of the prospects for Irish participation in FP7 and are broadly in line with our national targets.

Ireland's Participation in FP7 by Number of Applicants, Funding Requested and Success Rate

	Applicants in Submitted Proposals	Applicants in Successful Proposals	Success Rate %
Ireland	**2,322**	**546**	**23.51%**
EU Average			*21.68%*

	Funding Requested by Applicants (€)	Funding Granted to Applicants (€)	Success Rate %
Ireland	**742,853,081**	**152,681,015**	**20.55%**
EU Average			*20.52%*

Drawdown by Thematic Area

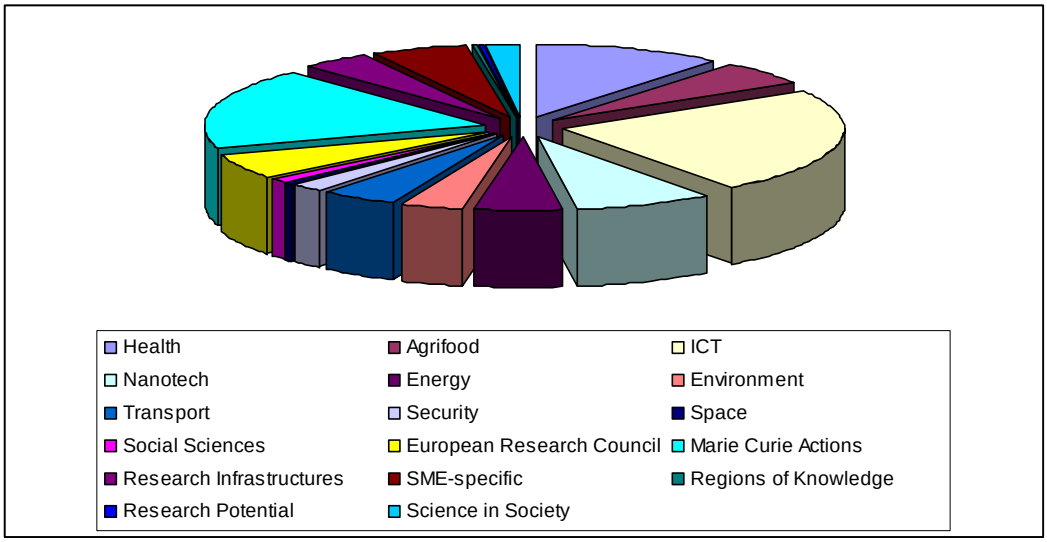
Ireland's drawdown in each Thematic Area is illustrated below. Four thematic areas account for 60% of the funding. These are:

1. Information & Communication Technologies (€35,364,774);

2. Marie Curie (€27,701,053);
3. Health (€16,387,087); and
4. Nanoscience, Nanotechnology, Materials & Production Processes (€12,271,610).

The drawdown across the full range of FP7 sub-programmes is presented in the graphic below.

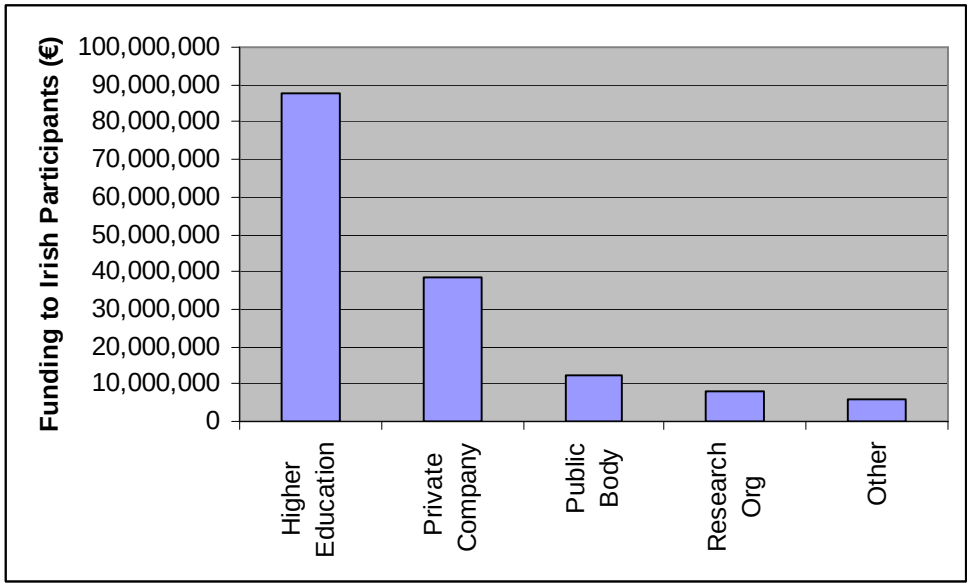
FP7 funding by Thematic Area in Ireland 2007- 2009



Sectoral Breakdown

The table below illustrates the sectoral breakdown by higher education, private company, public body, research organisation or other.

Funding to Irish Participants by Sector



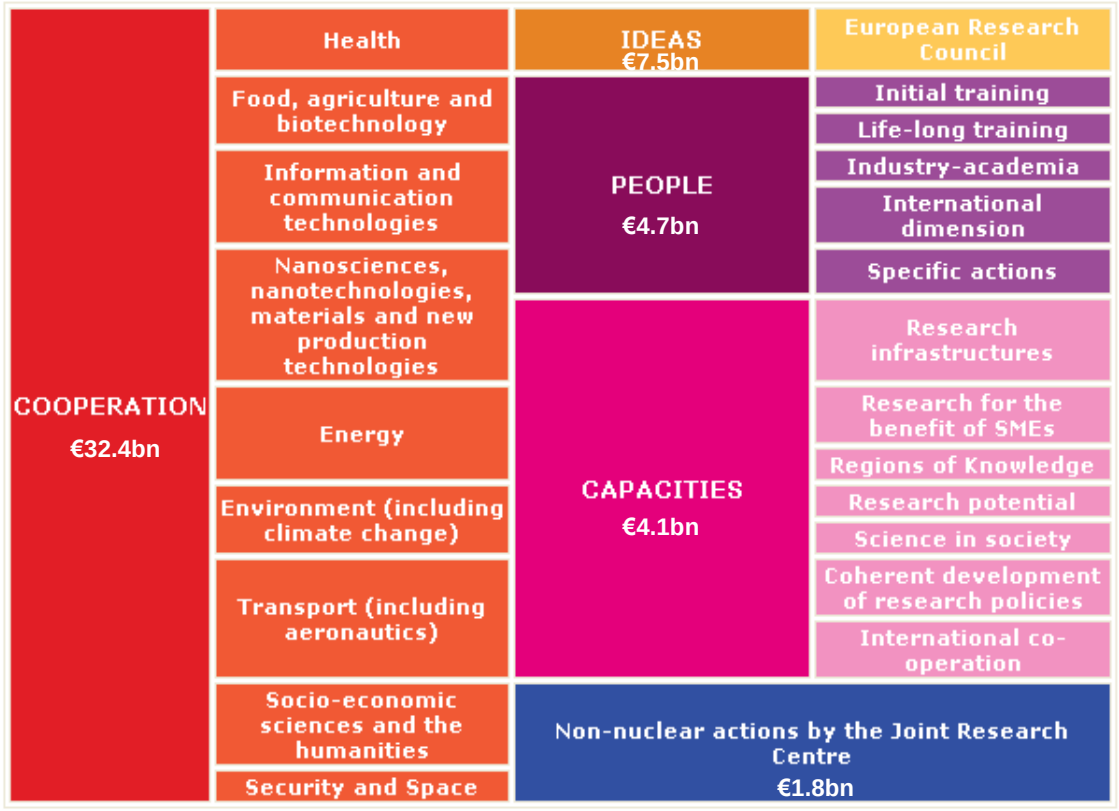
The higher education institutions have secured 57% or almost €88 million of the funding and another 17% has gone to public bodies and research performing organisations like the Marine Institute and Teagasc. Industry participation is substantially higher than that seen at the end stages of FP6. Companies have secured €38.7 million of the funding to date. SMEs account for over 76% of the funding to private industry, funding that is enabling Irish SMEs to collaborate with world-class research teams across Europe.

Examples of successful Irish participation in FP7 are provided in Annex II

Structure and Budgets for FP7

FP7 is organised in four programmes corresponding to four basic components of European research:

- **Cooperation**
  Support is given to the whole range of research activities carried out in trans-national cooperation, from collaborative projects and networks to the coordination of national research programmes. International cooperation between the EU and third countries is an integral part of this action.
  This action is industry-driven and organised in four sub-programmes:
  - **Collaborative research** will constitute the bulk and the core of EU research funding
  - **Joint Technology Initiatives** will mainly be created on the basis of the work undertaken by the European Technology Platforms
  - **Coordination of non-Community research programmes**
  - **International Cooperation**
- **Ideas**
  This programme enhances the dynamism, creativity and excellence of European research at the frontier of knowledge in all scientific and technological fields, including engineering, socio-economic sciences and the humanities. This action will be overseen by a European Research Council
- **People**
  Quantitative and qualitative strengthening of human resources in research and technology in Europe by putting into place a coherent set of Marie Curie actions.
- **Capacities**
  The objective of this action is to support research infrastructures, research for the benefit of SMEs and the research potential of European regions (Regions of Knowledge) as well as to stimulate the realisation of the full research potential (Convergence Regions) of the enlarged Union and build an effective and democratic European Knowledge society.



Annex II

Some examples of successful Irish participation in FP7 are outlined below:

- In keeping with Ireland's interests in energy efficiency, **Phive Plasma Technologies**, an innovative high potential start-up company emerging from Dublin City University, is developing manufacturing technologies and equipment to produce low-cost roofing membrane with fully integrated high energy solar cell efficiencies. The PV-GUM project provides Phive with access to specialist energy companies across Europe in an €11 million collaborative activity.

- **University College Cork**, also targeting alternative energy sources, is developing a marine renewable integrated application platform aiming to bring offshore renewable energy applications closer to the market. It addresses the need for creating a cost-efficient technology development basis for both offshore wind and ocean energy converters to kick-start growth of the nascent European marine renewable energy (MRE) industry in the deep offshore – a major future global market.

- Three new recipients of the prestigious FP7 European Research Council (ERC) supports for investigator-driven projects in 'frontier research' will build world class research teams in areas as diverse as bone regeneration, brain neurotransmitters associated with learning and demobilization-paramilitary violence. For example, **Professor Fergal O'Brien, Lecturer in Anatomy at the Royal College of Surgeons and Principal Investigator in the Trinity Centre for Bioengineering and Adjunct Associate Professor in Bioengineering at Trinity College Dublin** specialises in bone mechanics and osteoporosis, tissue engineering and regenerative medicine. The ERC Starting Grant will allow him to use collagen-based biomaterials developed since 2004 (using national funding sources) and incorporate cutting edge stem cell technologies, growth factor delivery, gene therapy and bioreactor technology which will translate to real bone tissue repair.

- **The Irish Research Council for Humanities and Social Sciences (IRCHSS) joins its sister Council for Science, Engineering and Technology** (IRCSET) in benefiting from the new Commission matched funding for the establishment of (or expansion of existing) national mobility-based fellowship schemes. IRCHSS will shortly commence its CARA postdoctoral mobility fellowships in the humanities and social sciences, filling a gap that is observed in current Irish and international funding for trans-national mobility. The fellowship programme will target experienced researchers active in the field of the humanities and social sciences with an outgoing phase of 24 months followed by a return phase in Ireland of 12 months. A total of 25 CARA fellowships will be on offer, having the potential for substantial influence within the research community in Ireland.