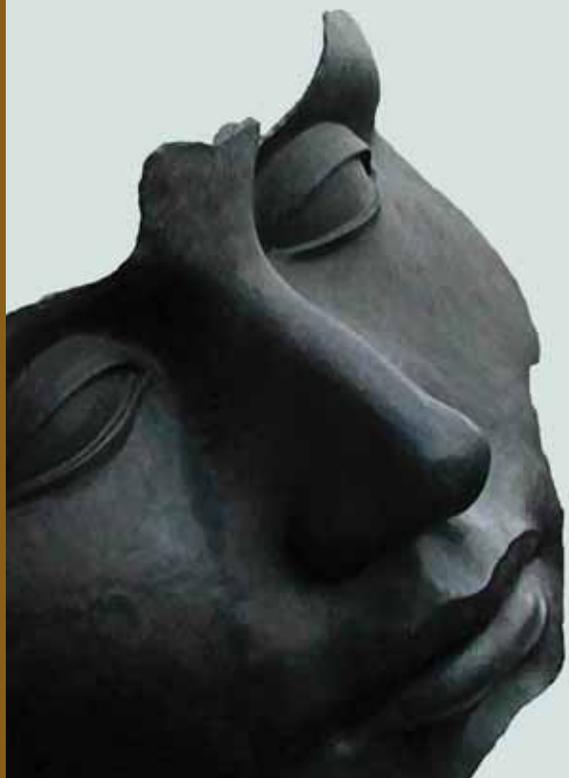




ADVANCING HUMANITIES
AND SOCIAL SCIENCES
RESEARCH IN IRELAND

a report by the ROYAL IRISH ACADEMY



ADVANCING
HUMANITIES
AND
SOCIAL
SCIENCES
RESEARCH
IN
IRELAND

a report by the ROYAL IRISH ACADEMY

Table of Contents

Foreword	xi
Preface	xiii
1 EXECUTIVE SUMMARY	xv
2 INTRODUCTION	5
3 HSS RESEARCH: CONTRIBUTION AND IMPORTANCE	23
3.1 Cultural enrichment	23
3.2 Economic and social well-being	29
3.3 Costs and benefits of investment in HSS	34
4 STRATEGIC PLANNING IN THE HSS	35
4.1 Key policy initiatives	35
4.2 Policy actors	38
4.3 Advocacy	40
4.4 Strategic planning in the HSS: ways forward	43
4.4.1 Knowledge transfer and the HSS	45
5 THE HSS IN IRELAND: FUNDING PROFILE	25
5.1 Trends in Irish HSS HERD	25
5.1.1 Sources of HERD	27
5.1.2 HSS research personnel in the higher education sector	32
5.2 EU HSS HERD: EU comparisons	34
5.2.1 HSS HERD: comparator countries	35
5.3 Observations	38
6 RESEARCH INFRASTRUCTURES FOR THE HSS	43
6.1 Knowledge-based resources	43
6.2 E-infrastructures and digitisation	46
6.3 Technical and administrative support	48
6.4 Observations	49

7 HSS RESEARCH AND THE EUROPEAN UNION	53
7.1 HSS participation in EU research funding instruments	54
7.1.1 EU Framework Programmes	55
7.1.2 ERA-NET	56
7.1.3 ESF instruments (2001–2005)	57
7.1.4 COST	59
7.2 Observations	60
8 DOCTORAL STUDIES AND RESEARCH CAREERS IN THE HSS	63
8.1 Growth patterns in doctoral studies, 1999–2004	63
8.2 Funding opportunities for HSS doctoral studies	64
8.3 Research training and careers	67
8.4 Mobility issues	69
8.5 Observations	71
9 RECOMMENDATIONS	75
Appendix I: Membership of the RIA Working Group on the Humanities and Social Sciences	79
Appendix II: Membership of the RIA Sub-Committees of the Working Group on the Humanities and Social Sciences	81
Appendix III: EU HERD Comparisons	83
Appendix IV: Research Councils in Finland, Norway, Portugal and Slovenia	87
References	93

List of tables and charts

Table 1	Higher Education Expenditure on Research and Development (HERD) in the humanities and social sciences, 1998–2004 (€m constant 2004 prices)	26
Table 2	Source of total HERD funds for all fields of science expressed as a percentage share of total HERD, 1998–2004 (€m constant 2004 prices)	27
Table 3	HSS percentage share of total HERD expenditure by source of funds, 1998–2004 (€m constant 2004 prices)	28
Table 4	Estimated HSS HERD allocation by source (direct government funding only) and percentage funding allocation, 1999–2004 (€m)	30
Table 5	Capital and recurrent breakdown of direct government funding by agency to the humanities and social sciences	32
Table 6	Number of HSS researchers (full-time equivalents or FTEs), by occupation compared with total researchers in all fields of science (FoS) in the higher-education sector, 1998–2004	33
Table 7	HERD as a percentage of GNI in Ireland, Finland, Norway, Portugal and Slovenia, 2000–2004 (€m current prices)	36
Table 8	Sources of HERD expenditure on all fields of science, 1998–2004 (millions of 1995 PPS)	37
Table 9	Humanities and social sciences HERD as a percentage of GNI—2000–2004 (based on current prices)	38
Table 10	Sources of HERD expenditure (percentage) on humanities and social sciences, 1998–2004	39

Table 11	HERD expenditure on humanities and social sciences as a percentage of HERD in all fields of science, 2000–2004 (constant 1995 prices)	40
Table 12	Ireland’s participation in EU FP4, FP5 and FP6	55
Table 13	Participation by Irish HSS researchers in NORFACE activities, 2005–2006	57
Table 14	Summary of participation of Ireland, Finland and Portugal in ESF instruments in the HSS, 2001–2005	58
Table 15	PhD enrolments—distribution between HSS and SET, with year on year percentage growth, 2000–2005	64
Table 16	IRCSET and IRCHSS postgraduate scholarship scheme: number of applications for scholarships and awards granted, 1998–2006	65
Table 17	Number of HSS PhD awards compared to HSS postdoctoral fellowship posts in the higher-education sector, 1998–2004	68
Chart 1	Percentage share of total HERD by field of science, 2002 and 2004	26
Chart 2	HSS HERD sources of funding, 1998–2004	28
Chart 3	HSS HERD direct-government funding by agency, 1998–2005	31
Chart 4	Capital and recurrent allocations from direct-government sources of HSS HERD, 1998 – 2005	31
Chart 5	Number of HSS researchers compared with total number of researchers in all fields of science in the higher-education sector, 1998–2004	34

Chart 6	
HERD as a percentage of GNI 2000–2004	83
Chart 7	
Humanities and social sciences HERD as a percentage of GNI, 2000–2004	84
Chart 8	
HERD expenditure on humanities and social sciences as a percentage of HERD, all fields of science, 2000–2004	85

Glossary

AAI	authorisation and authentication infrastructure
CONUL	Consortium of National and University Libraries
COST	European Cooperation in the Field of Scientific and Technical Research
CSC	Cabinet Sub Committee on Science, Technology and Innovation
DES	Department of Education and Science
DETE	Department of Enterprise, Trade and Employment
ECRP	European Collaborative Research Projects
EI	Enterprise Ireland
ERA	European Research Area
ERC	European Research Council
ERCH	European Research Council in Humanities
ESF	European Science Foundation
ESFRI	European Strategy Forum on Research Infrastructures
ESS	European Social Survey
EU	European Union
EUROCORES	European Collaborative Research Schemes
FoS	fields of science
FP	European Union Framework Programmes
FTE	full-time equivalents (research personnel)
GDP	Gross Domestic Product
GNI	Gross National Income
HE	higher education
HEA	Higher Education Authority
HEG	higher-education grants
HERA	Humanities in the European Research Area
HERD	Higher Education Expenditure on Research and Development
HERG	Higher Education Research Group
HRB	Health Research Board
HSS	humanities and social sciences
ICT	information and communications technology
IDC	Inter Departmental Committee on Science, Technology and Innovation
IRCHSS	Irish Research Council for the Humanities and Social Sciences

GLOSSARY contd.

IRCSET	Irish Research Council for Science, Engineering and Technology
IreL	Irish Research eLibrary
ISCH	individuals, society, cultures and health
IUA	Irish Universities Association
NCP	National Contact Point
NORFACE	New Opportunities for Research Funding Co-operation in Europe
NUIM	National University of Ireland, Maynooth
OECD	Organisation for Economic Co-operation and Development
PPS	Purchasing Power Standards
PRTL	Programme for Research in Third-Level Institutions
R&D	research and development
RI	research infrastructures
RIA	Royal Irish Academy
SCH	Standing Committee for the Humanities
SCSS	Standing Committee for the Social Sciences
SET	science, engineering and technology
SFI	Science Foundation Ireland
SIF	Strategic Innovation Fund
SSHHERA	European Commission's Advisory Group on Social Sciences and Humanities in the European Research Area
SSTI	Strategy for Science, Technology and Innovation 2006–2013

Foreword

The Royal Irish Academy (RIA) has long recognised the fundamental importance and central contribution of the humanities and social sciences to the advancement of the cultural, social, political, economic and scientific well-being of Ireland. Historically, the Academy has played a significant role in the development of higher-education research in these disciplines and today their continued importance is reflected in the Academy's research activities.

Ten of the RIA's twenty-one committees are concerned with the humanities and social sciences ranging from archaeology to biblical and Near Eastern studies, and from philosophy to the social sciences. The majority of its research projects lie within the domain of the humanities and social sciences and include: the Dictionary of Irish Biography; the Foclóir Stairiúil na Nua-Ghaeilge; the Irish Historic Towns Atlas; the Dictionary of Medieval Latin from Celtic Sources; Documents on Irish Foreign Policy (in association with the Department of Foreign Affairs); and the Dublin Excavations Publications Project. The Academy's library contains important collections of manuscripts and other material of national as well as international interest, and welcomes hundreds of researchers every year. Our occasional symposia, monographs, journals and other publications underline our commitment to the promotion of excellence in the humanities and social sciences.

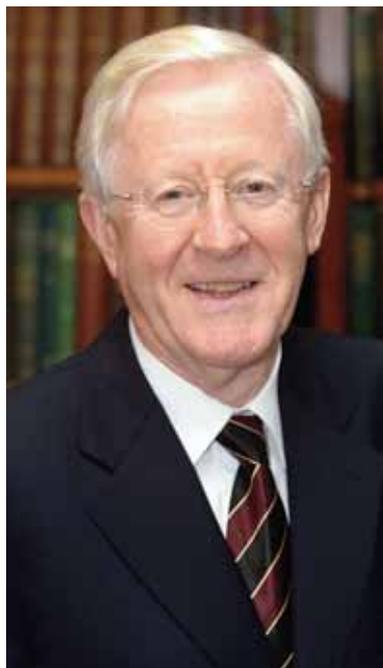
In recent years the Academy has drawn on its expertise to analyse higher-education research needs and to inform and advise on public policy in matters of national research strategy. Its analysis of, and response to, the Organisation for Economic Co-operation and Development (OECD) recommendations on higher education in Ireland, *Cumhacht Feasa: Report on the Working Group on Higher Education*, was published in 2005. It has also published reports on higher-education infrastructure needs and research investment, and facilitated government departments and other bodies seeking independent expertise.

At a time when higher-education institutions and the broad humanities and social sciences research community are under pressure to become more utilitarian and 'vocationally relevant', and when the relevance of the humanities may be becoming less obvious in the eyes of the public, there is a perception that higher-education institutions may be turning away from their historical commitment to these core

disciplines. This report on the humanities and social sciences reflects the Academy's concern to ensure that the liberal arts agenda remains central to Ireland's higher-education system. The report, *Advancing Humanities and Social Sciences Research in Ireland*, commissioned after a wide-ranging consultation exercise within the higher-education system, also reflects the Academy's continuing commitment to inform and engage with public policy in education, scholarship and research.



Professor James A. Slevin
President, Royal Irish Academy



Preface

This report is the result of a series of high-level meetings and a research project hosted by the Royal Irish Academy during 2005 and 2006. It argues that the humanities and social sciences (HSS) are fundamental to the further development of the knowledge-based economy and to social cohesion, recognising that this has not always been underlined effectively. In part, this has been due to a lack of resources and incentives as well as to the evolution of a policy discourse, which often focuses on the more tangible deliverables of research rather than on the broader culture that makes these possible.

While this broader culture is not the preserve of any one set of disciplines, the humanities and social sciences play a central role. As the report indicates, to neglect the HSS is to undermine some of the more important vehicles of knowledge creation. It is also to ignore the fact that many of the research questions of today's Ireland are posed as much by social and cultural issues as they are by the need for pioneering discovery in the life sciences. Innovation is a broad church. To this extent, the humanities and social sciences should not be viewed as supplementary to science policy, or presented as an afterthought to it. They are integral to the development of our culture, economy and society as a whole.

Through this report, the Royal Irish Academy has demonstrated its proactive and positive approach to the humanities and social sciences, and to HSS policy. It has drawn on a range of experts who have looked at the question under three broad headings: general strategies, infrastructure and internationalisation. I would like to thank the convenors of the three sub-committees, Professor Michael Cronin, Professor Mary E. Daly and Ms Marie Reddan, and the committee members, as well as the members of the working group and in particular, Professor Jane Conroy, the Academy's Polite Literature and Antiquities Secretary and Professor Andrew Mayes, Senior Vice President of the Academy.

I also acknowledge the assistance which we received from a number of public bodies including the Irish Research Council for the Humanities and Social Sciences, the Higher Education Authority, Forfás and the Economic and Social Research Institute, and in particular its Director, Professor Frances Ruane. I would also like to thank the staff of the Academy, including Vanessa Berman, Deirdre Strich and

Sinéad Riordan whose appointment as Senior Research and Policy Officer in July 2006 particularly helped us to address this challenging assignment.

The outcome is a comment rather than a conclusion. However, the working group hopes that the relevant government departments will study the important conclusions and recommendations contained in this report carefully and that the implementation of these recommendations will receive urgent consideration.

Dr Maurice J. Bric, MRIA
Chairman of the Working Group on the Humanities and Social Sciences

1 Executive summary

INTRODUCTION

In October 2005 the Royal Irish Academy (RIA) convened a working group to examine the status of humanities and social sciences (HSS) research activity, and to consider how best to ensure the future sustainability and appeal of the HSS research environment in Ireland.

A strong base of HSS research and knowledge is needed for social, economic, cultural and political reasons. The HSS contribute directly to economic wealth creation and national prosperity. Full economic and social potential is achievable only by drawing on the resources of all disciplines and by adopting a holistic approach to research and development.

The knowledge and skills promoted by the HSS are vital to the balanced development of Irish society. Research into cultural heritage, the economy and society by HSS scholars has a long and valued tradition in Ireland, where it has helped to shape understanding of the island's histories, cultures and values. Our ability to articulate and reflect on our environment, our traditions, our languages, our religious beliefs, and the visual, musical and architectural forms that shape our consciousness, is the condition of civilised social intercourse. It also allows us to claim an enriched membership of the European and global family of nations.

HSS research is a prerequisite for making informed policy choices in areas that impinge crucially on quality of life. Many sectors of Irish society benefit from the knowledge generated and the services provided by the humanities and social sciences. HSS graduates are equipped with a range of knowledge, skills and wider competences that enable them to participate in, and contribute to, a variety of sectors, which complement and support Ireland's continued economic growth.

With the development of new technologies, the HSS also have an ever-growing role in the preservation of Ireland's unique resources (libraries, museums and archives), thus ensuring that Ireland's cultural heritage is recorded and maintained for posterity. Furthermore, the HSS are major growth areas within the wider world

of teaching and learning and offer a way in which Ireland can make an important contribution both to achieving the European Union (EU) Lisbon Agenda objective of making the EU the most dynamic knowledge-based economy in the world by 2010 and to meeting the OECD 2004 recommendations on the expansion of Irish research.

To evaluate the status of HSS research in Irish higher education today it is useful to look at what may be considered its various strengths and weaknesses.

Strengths

- Significant investment since 2000 in responsive funding initiatives; specifically the Programme for Research in Third-Level Institutions (PRTL) and the Irish Research Council for Humanities and Social Sciences (IRCHSS). These initiatives have had a positive impact in stimulating HSS research.
- Capital investment channeled through the PRTL has begun to stimulate the development of a critical mass in selected HSS research areas within the higher-education sector.
- Research initiatives funded by IRCHSS support research activities across the broad community of higher-education HSS researchers including postgraduates, post-doctoral fellows and senior research fellows.
- The engagement of the HSS research community with the process of international peer review ensures that HSS research meets internationally recognised 'gold standards' of quality.
- HSS research has been to the fore of encouraging interaction and contact between researchers throughout Ireland, North and South.
- HSS degrees continue to attract the greatest proportion of full-time undergraduate new entrants, accounting for 58 per cent of new entrants in 2004/05.
- Recent years have seen the emergence of a community of HSS postgraduates with an increase of 92 per cent in the number of HSS postgraduates (full- and part-time) from 2000.
- Growth in new postdoctoral career opportunities in HSS research has occurred.

- Enhanced investment in national research networks and growing access to electronic resources such as the IreL (the Irish Research eLibrary) initiative has also occurred.

Weaknesses

- Investment in HSS research in the higher-education sector lags behind the EU average.
- R&D in the HSS is the only field of science, which has experienced a fall in its percentage allocation of public investment in higher-education R&D since 2002.
- Expenditure on HSS research from indirect government sources is considerably lower than that in selected comparator countries, notably Finland and Norway.
- Investment in HSS R&D in the higher-education sector by EU, foreign and business sources has declined in recent years.
- The number of full-time academic staff posts available to HSS researchers has declined.
- Given the growing number of researchers who occupy short-term posts the sustainability of the HSS higher-education research community could be at risk.
- Insufficient recognition of the transferable skills obtained by HSS graduates has been created outside the academic arena.
- Participation in international research collaborations, particularly at EU level, remains low. The capacity of the HSS research community to engage in international research collaborations is compromised by very limited funding to support HSS researchers' participation in travel and exchange programmes (often the first step to forming international R&D collaborations) and a lack of targeted administrative and management supports to assist in the preparation and management of transnational funding proposals.
- An inadequate research infrastructure has been identified, with particular needs in respect of investment in the physical infrastructure including libraries, museums and archives, access to fit-for-purpose research space as well as dedicated technical and IT support, data archives and research repositories.
- There is no national policy or lead agency to oversee HSS digitisation projects.

Building Ireland's HSS community—priorities to 2013

The capacity of the HSS research base must be further strengthened to ensure its continued contribution to stated national R&D-policy goals, namely the achievement of a knowledge-based, innovative economy and society. Key steps towards achieving this should include:

- Initiating a national foresight exercise for the HSS;
- Increasing investment in HSS research schemes;
- Internationalising of HSS research including increased international research collaboration and mobility;
- Securing the supply of HSS researchers (developing postgraduate training and researcher careers);
- Strengthening the HSS research infrastructure (print, physical and digital).

A national foresight exercise for the HSS

Researchers in the sciences, engineering and technology benefited greatly from the identification of priority research areas in the 1998 technology foresight exercise. A similar exercise should be undertaken for the HSS research community and should focus on a number of broad issues including:

- Identification of priority research areas with reference to existing research capacity, future potential for research excellence and contribution to strategic policy research;
- Support for the development of a critical research mass and for individual investigator research;
- Development of a research infrastructure;
- Expansion and development of sources of HSS research funding;
- Research dissemination and communication;
- Doctoral training and the development of research career pathways.

Increased investment in HSS research

Additional investment is required if Ireland is to achieve even the EU-average expenditure on HSS research. Resource-allocation models at sectoral and institutional levels must take account of this overall objective. A short-term goal would be the return of Irish HSS Higher Education Expenditure on Research and Development (HERD) allocations to their relative levels in 2002. Increased funding should be channelled into four main areas:

- Expansion of research programmes and initiatives;
- Capital infrastructure: provision of more research space, technical support, library and IT support (including the maintenance of non-digital resources and digitisation projects), and increased support for resources such as libraries, archives and museums;
- Human resources: training, career structures and supports for researchers;
- Mobility and exchange networks.

A significant issue, hampering the development of HSS research within the higher-education sector, is the non-payment of institutional overheads by agencies and bodies funding HSS higher-education research. Consideration should be given to the development of a common protocol across all research-funding agencies and bodies for the payment of such overheads, which is cognisant of the costs and differences across the different types of research.

Internationalisation of HSS research

Participation in EU and international networks is vital to Ireland's objective of creating a world-class research system. However, the Irish HSS share of higher-education research expenditure drawn from EU and foreign sources is falling and the Irish HSS community has a relatively low level of participation in European funding initiatives.

If the Irish HSS research community is to participate effectively in international research and funding opportunities, a range of supports must be provided including those to facilitate mobility, participation and collaboration. These supports include:

- Active engagement by National Contact Points (NCPs) with the HSS research community to support and encourage the development and presentation of proposals to EU instruments;
- Enhanced administrative and management assistance within higher-education institutions for HSS researchers participating in the preparation of research proposals;
- Further development of domestic opportunities to access international mobility funding to support participation in international networking opportunities, travel grants and international exchanges, and to promote international networks. Such schemes should provide a 'mix' of supports for early-career researchers and principal investigators;
- Enhanced agency presence at the European Commission to assist and inform Irish HSS researchers in regard to EU research opportunities.

Securing the supply of HSS researchers

Proposed strategies include:

- A review of postgraduate formation in the HSS including the development of structured PhD programmes embracing generic skills;
- Increased funding for HSS research postgraduates;
- Development of defined researcher career structures plus enhanced supports for early-career researchers;
- Mobility grants to enable participation in European and international networking.

Strengthening the HSS research infrastructure (print, physical and digital)

PRINT RESOURCES AND DATA TOOLS

Initiatives are required to:

- Ensure continued support for the development and enhancement of non-digital resources such as libraries, museums and archives.



- Establish a national research register linked to a repository of published research papers at local and national levels.
- Equip the Irish HSS research community to participate in European-level data infrastructures and transnational data-collection instruments.
- Further the development of national data-archival structures and address the lack of major data repositories for HSS research.

E-RESOURCES AND INFRASTRUCTURE

The international trend for the digitisation of research materials offers many opportunities to encourage HSS research collaboration nationally and internationally. In support of this a national digitisation strategy should be established to guide digitisation initiatives and support the development of a common e-infrastructure. This strategy should clearly outline the lead agencies and relevant supports necessary to:

- Coordinate standards for digitisation, encoding, cataloguing, archiving, curation and storage of research resources at a national level.
- Ensure continued investment in the national research network and in network connectivity and bandwidth at national and regional levels.
- Organise national and international awareness and training, especially in relation to digital resources.
- Facilitate relationships and knowledge exchange with cognate international organisations to share expertise and resources.
- Oversee the establishment of a national portal for access to electronic research resources, and the establishment of a central national repository for Irish-produced digital research and resources.

Representation and inclusion

The HSS community must be adequately represented within key policy and implementation structures such as the Higher Education Research Group.

The higher-education sector must also continue to take a major role in creating sustainable and attractive environments for the HSS research community. It should be motivated to place HSS research at the heart of its institutional research strategies, actively lobby on behalf of the HSS research community and ensure that this community is specifically represented at senior-management level and in research offices.

3 HSS research: contribution and importance

Over the last 30 years, Ireland has experienced dramatic change and increased diversity. Our economy is strong and dynamic and is founded on the impact of knowledge, especially in the sciences and technologies. The humanities and social sciences (HSS) play a significant role in promoting our new prosperity and informing the policies which facilitate it. In any event, the social and cultural aspects of what our country is undergoing cannot be ignored. To do so is to focus on issues of economic performance in isolation from their social context. It is to disregard the community of the future.

While recognising the importance of the HSS to public policy, this report examines whether there is a need to reassess current strategies and whether the ways in which the HSS contribute to our knowledge-based economy, as well as to the research strategies which help to drive it, should be clarified, sharpened and reassessed. In doing so, the working group realise that different values are often assigned to particular kinds of knowledge, for example scientific or cultural, and argues that the ways in which knowledge is often defined should be revisited.

3.1 CULTURAL ENRICHMENT

The HSS are central to cultural and intellectual life and their vitality is the standard by which quality of life is measured. They deal with issues of meaning, values, social cohesion and individual and collective development. They confront difficult and challenging issues in enabling ways: ethnicity and intercommunal tension; the crisis of clashing world-views and value-systems; the dangers posed to the environment by uncontrolled economic growth; the alienation of many citizens from the body politic; the life cycle, with its intergenerational stresses; and the human quest for truly fulfilling experience. The HSS:

- Inform contemporary debate, in shared as well as distinct senses of identity.
- Reflect the creativity of national heritage.

- Facilitate cultural exchange in the wider world.
- Promote reflective and analytic skills, which foster independent thinking and innovative insight.
- Develop new forms of innovation.

Rapid economic development and significant social transformation often have consequences for social cohesion in a society. Common purpose and shared values can give way to an exclusive emphasis on individual self-enrichment and a pre-occupation with private rights over collective responsibilities. HSS research is uniquely placed to identify those factors, which act as a barrier to a more active sense of citizenship, preventing citizens from contributing more fully to communities at local and national level. HSS researchers in Ireland have much to contribute to our understanding of how a society can be developed that cherishes all its members equally and which creates a truly dynamic and inclusive sense of citizenship in twenty-first century Ireland. The skills and expertise of the HSS research community will be indispensable in ensuring that policy objectives in this area are properly informed and socially feasible.



ASSOCIATIONAL CULTURE IN IRELAND, c. 1750–c. 1940, A DATABASE

The Associational Culture in Ireland project in the Department of History, National University of Ireland, Maynooth (NUIM), explores the culture of Irish associational life from 1750 to 1940. This study is not merely from the point of view of who, what, where and when, but also the 'hidden culture' of social networking, which operated behind many different clubs and societies throughout the period. The project fuses the latest computer programming, specifically designed for the purpose, with historical data extracted from a wide range of sources to piece together as comprehensive a view as possible of the myriad of clubs, societies, organisations, groups, etc. that existed in Ireland during the period 1750–1940.

This research project is a foundational enterprise—enabling patterns in Irish associational culture to be traced regionally, nationally and transnationally. Contemporary social and political commentators are concerned about the role of associational culture in our globalised environment. Studies, such as this project, are vital in tracing the effects of external political and social factors on associational culture and grassroots participation in the public arena over a long period. The database will, in particular, provide substance for all scholars of social, political and economic trends in modern Ireland, not least in aiding researchers to identify the changing nuclei of socialisation and to pinpoint trends in Irish associational development.

Funded by the Irish Research Council for the Humanities and Social Sciences (IRCHSS), the Associational Culture in Ireland database will be launched in 2009 on the NUIM server. From then on, the information on the various clubs and societies, collected under the auspices of the project, will be available to all. The database is capable of infinite expansion; the initial phase of funding will take the study up to 1940, but future funding can theoretically bring the data and the resultant social patterns right up to the present day.

The HSS have made a fundamental contribution to furthering our understanding of the different traditions, histories and cultures of the communities living on the island of Ireland. HSS researchers have contributed to developing the conditions for creative and meaningful interaction between groups from different political and religious backgrounds on the island more than any other area of enquiry. This research is of immense importance in constructing a viable economic, social and cultural future for all the communities on the island of Ireland. This future should involve mutual respect and a shared interest not only in the past and present condition of Ireland and Britain but which looks also to the evolving relationship between the different polities on these islands.

ALL-ISLAND RESEARCH COLLABORATION IN HUMANITIES AND SOCIAL SCIENCES
RESEARCH: A CASE STUDY

The 1966 Commemoration of the Golden Jubilee of the 1916 Rising



This joint project by University College Dublin (UCD) and Queen's University Belfast (QUB) was funded by the Higher Education Authority's North-South Research Programme (2003–2006). The project explored how the Golden Jubilee of the 1916 Rising was commemorated by the Irish government and by voluntary organisations inside and outside Ireland, and the reaction of the Northern Irish government and communities to the commemoration. The 1966 Jubilee has sometimes been seen as an event which nurtured a new generation of physical-force republicans, and is often linked with the outbreak of the Troubles in Northern Ireland in 1969. The research performed in this project does not support this hypothesis.

The existence of two research teams, one in Belfast and one in Dublin, undoubtedly strengthened the research teams' sense of the contrasts and similarities, and the all-Ireland dimension of the research. The teams exchanged research material and draft chapters, a process that also heightened their sense of the North-South dimensions of the topics. The project funding made it possible to hold conferences and workshops attended by graduate students from UCD and QUB. Material generated by the project is being deposited in the UCD Archives, and posted on the web site of the UCD Humanities Institute of Ireland. An as-yet-untitled multi-authored book, based on the project will be published by the Royal Irish Academy in 2007.

We are the culture in which we live. Our ability to understand and reflect on our surroundings, languages, history, literature and traditions shapes our consciousness, and drives civilised social intercourse subnationally, nationally and internationally. It reflects the kind of flexibility that is central to human progress and provides the range of skills both to address the problems which are posed by a modern and dynamic society and to ascertain how diverse institutional structures affect social policy and economic performance.

Teaching and research in the HSS also contribute directly to:

- Artistic production in museums, galleries, concert halls, theatres and the media, giving expression to creative understandings of the national heritage and serving as the focal points for cultural exchange on a world stage;
- Literary production in books and newspapers through which critical reflection on and discussion of national and international affairs are fostered;
- Historical production in journals, books and archaeological reports through which history, tradition and social and individual identity come under continuous, self-critical scrutiny.

Such activities involve a wide range of creative, expressive, reflective and analytic skills, central to which is the independent mind. It allows us to bring critical and innovative insight into everyday issues and situations, and is capable of the rigorous formulation of problems and the gathering of information to solve them.

3.2 ECONOMIC AND SOCIAL WELL-BEING

Cultural enrichment leads to economic prosperity, most obviously perhaps through cultural tourism and enquiry. However, many sectors of Irish society also benefit in other ways from the knowledge generated, and the services provided, by the humanities and social sciences. HSS graduates are equipped with a range of knowledge, skills and wider competences that enable them to contribute to a number of sectors and professions, as illustrated by recent research on the pathways of HSS graduates (HEA 2003, 2006a). As such, they are essential drivers of the knowledge economy in Ireland.

The knowledge economy relies on the ability to:

- Handle high-level concepts.

- Identify competing and complementary perspectives.
- Assemble and process data.
- Assess whether particular points of view are central to a productive and innovative workforce.

This is how information, largely useless in itself, becomes valuable knowledge. These are skills and capabilities that are developed through an education in the HSS. In a global economy, the understanding of different cultures, organisations and societies is vital to our ability to form international ties and alliances. In the absence of these cultural and social understandings, scientific and technological advances are less likely to travel cross-culturally.

In recent decades the Irish economy has been transformed from an agrarian and traditional manufacturing-based economy to one based increasingly on the hi-tech and internationally traded services sectors. The Irish labour force has undergone an accompanying structural shift with a marked trend toward a 'post-industrial' workforce—in 2005 the services sector accounted for 66 per cent of employment, industry for 28 per cent and agriculture for 6 per cent.³ Key growth areas include non-market services (defence forces, health services, education and social and charitable services) and market services (particularly business, financial, professional and insurance services, transport, communication and distribution). These services are the key employment sectors for HSS primary-degree graduates (HEA 2006a, 2003).⁴

At a policy level, skills acquired through training in the HSS are reflected in government departments and agencies, the education sector, health, welfare and social services, tourism, and financial and management services. Research in the HSS informs social debate and public policy as well as the decision-making processes. It is the key provider not only of the skills and training that inform such decision-making but of much of the information and evidence which is required to inform policy.

The contribution of the HSS to many substantive policy issues is crucial. These issues include ethics in politics, active citizenship, medicine and daily life, as well as globalisation, immigration, identities, urbanisation and the environment, economic growth and social change, religion and politics, nationalism, national security and international relations.

³ ESRI, 2006, accessed online at: www.esri.ie/irish_economy/ (23 January 2007).

⁴ In 2004 the key employment sector for arts, humanities and social sciences primary-degree graduates were non-market services (38.2 per cent), business, finance and insurance services (22 per cent) and distribution (11.5 per cent). Business, finance and insurance services absorbed the majority of business and law primary-degree graduates (60.1 per cent and 65.2 per cent respectively). See HEA 2006a, 37.

MANAGING WORK-LIFE BALANCE: IMPLICATIONS FOR SOCIAL AND PUBLIC POLICY

The reconciliation of professional and personal life has become increasingly important in recent years and a number of developments in Irish society have resulted in a work–life balance being placed at the heart of the management, social, public and political agenda. Against this backdrop, a proposal by the Centre for Innovation and Structural Change, National University of Ireland, Galway successfully received funding under the IRCHSS Project Grants Scheme in 2005 to conduct research on work–life balance in Ireland. The study is in its second year and the primary data are currently being collected. It is exploring how employees manage the different work and life domains in the context of growing demands and challenges on their time.

Its results will have important implications for social and public policy at a number of levels. Firstly, the relative lack of focus on community as an important life domain in work–life research to date will be addressed in the current study and will shed light on important issues at a community level. Secondly, the study will report on work–life balance policy at an organisational level from the perspective of HR managers and line managers or supervisors as well as practice from the employee perspective. It will reveal the effectiveness of various initiatives and programmes in organisations such as flexible working practices (e.g. job sharing, teleworking, flexitime). These findings will inform policy in terms of bespoke arrangements provided by organisations as well as informing the social agenda on work–life balance more generally.

It is also clear that HSS skills are central to innovation, which requires

A particular mindset that involves curiosity, creativity and problem-solving, the ability to continually question established ways of doing things and the ability to apply knowledge, insights and intuition to change them...

(Enterprise Strategy Group 2004, 104).

HSS skills are clearly central to addressing the emerging areas of organisational and marketing innovation (Forfás 2006). Moreover, it can be argued that some of our recent technological advances and successes are rooted in the human, social,



educational, entrepreneurial and management skills which are often the product of HSS education and research.

Also characteristic of these generic skills is the flexible thinking that is increasingly necessary for our business leaders, administrators and policy makers, people who can adapt their high-level training from one area to another. Such skills chart the path to innovation in business and enhanced productivity.

Outputs in the HSS are not always quantifiable in terms of the measurements which are applied in other areas of research. However, there may not always be an immediate correlation between knowledge gained in the sciences and its application in innovation and wealth creation. In this respect, and despite impressions to the contrary, the impact of research in the HSS is little different from that in other areas of science. Whether it is popularly called 'blue skies' research in the so-called 'hard sciences', or 'creativity' in the HSS, research and innovation challenge and re-invent established patterns of thought. In both cases, the results are frequently indirect and unpredictable at the outset of the research initiative, and may not become visible for a considerable period of time. The newly created European Research Council (ERC) in dedicating its funding to non-applied 'frontier research' in all domains, recognises the need for Europe to have a broader long-term vision for research.

While the creation of economic wealth demands that the state should invest large public funds for a real return, such a return serves only part of the public good. The wider and more durable interests of the community must also have regard to the social and cultural dimensions of economic activity. It is towards the understanding and analysis of such dimensions that the HSS make the most significant contribution

3.3 COSTS AND BENEFITS OF INVESTMENT IN HSS

As HSS disciplines are concerned with the development of new knowledge to grapple with enduring problems and issues, the likelihood of a return on research investment, provided the appropriate support structures are developed, is relatively high.

As we look forward, Ireland can invest with confidence in the HSS. Over the past decade, the research capacity of the Irish higher-education sector in these disciplines has grown as a result of higher participation rates and specific government initiatives and schemes.

It is vital that policymakers and the higher-education sector value the specialist skills of the HSS, which have been built up over the years in Ireland. It is also imperative that they recognise that those skills, if lost, would be expensive and difficult, if not impossible, to recover.

SPEECH BY THE MINISTER FOR EDUCATION AND SCIENCE, 24 OCTOBER 2006

As Ms Mary Hanafin, TD, and Minister for Education and Science, remarked in a speech to the Irish Universities Association conference on October 24, 2006:

But the challenges we face are also grounded in the older and more fundamental responsibilities of institutions of higher learning in any civilised society. These relate to the development of individuals as independent and creative thinkers, the promotion of active citizenship and support for ethical values. They relate to the protection and enhancement of vital tenets of our history and culture, to the search for social justice nationally and globally, to the questioning of authority, to the deepening of our understanding of ourselves and the world around us and to the enrichment of our lives through a deepened recognition and appreciation of the values that matter in society. An inclusive vision of higher education in Ireland has to encompass a broad understanding of these roles. The intrinsic worth of higher learning for its own sake both to the individual and to wide society is plain and is supported by copious research. That higher education also confers major economic advantages to the collective community is a highly welcome by-product.

She also noted that although the utilitarian value of education has become increasingly dominant in public policy discourse 'The intrinsic value of the arts, humanities and social sciences ... outweighs direct or indirect economic benefit. The true worth of cultural knowledge transcends any of its specific applications'.

Source: Speech given by Ms Mary Hanafin, TD, and Minister for Education and Science on 24 October 2006 to the Irish Universities Association conference, *Humanities and Social Sciences in 21st Century Ireland: Delivering the Knowledge Society*.

4 Strategic planning in the HSS

4.1 KEY POLICY INITIATIVES

Prior to 1998 researchers within higher-education institutions conducted their work with limited public funding. Such funding was typically drawn from the unified teaching and research budget (or block grant) allocated each year by the Higher Education Authority (HEA) to universities and institutes of technology. The system made relatively little impact on HSS researchers, who typically received only a small percentage share of what was available.

However, during the 1990s, concerted lobbying by both public research agencies and those who wanted to improve the capacities of the higher-education sector, as well as the example of pilot schemes such as the RIA Social Science Research Council, demonstrated successfully the need to formalise and expand infrastructural supports and funding for research and development (R&D) across all disciplinary areas. As a result, Irish research is now supported by a diversity of funding initiatives and enabling structures.

Important initiatives within this process include:

- The CIRCA Group report for the HEA on the management and funding of university research (1996);
- Universities Act (1997);
- Technology Foresight Ireland: an Irish Council for Science, Technology and Innovation overview (1999);
- The Humanities and the Social Sciences: a Case for a Research Council (1999);
- National Development Plan 2000–2006 (2000);
- Building Ireland's Knowledge Economy: the Irish Action Plan for Promoting Investment in Research and Development to 2010 (2004);
- OECD Review of Higher Education in Ireland (2004).

These initiatives have contributed to the development of:

- an agreed set of general principles and objectives for Irish research policy;
- a set of enabling structures and initiatives to support the achievement of national science and research objectives.

Among the more important developments relevant to the HSS during this period were the launch of the Programme for Research in Third-Level Institutions (PRTL) and the Irish Research Council for the Humanities and Social Sciences (IRCHSS) (see Section 4.2). In the later part of 2005 the Department of Education and Science (DES) launched the Strategic Innovation Fund (SIF). This is a competitive multi-annual fund designed to support internal change in third-level institutions and promote the development of intra- and inter-institutional collaboration in teaching and learning and R&D, as well as improved access, retention and progression of third-level students (DES 2005). When applied, it will support measures to improve the quality of education and/or structures for the delivery of postgraduate education and research across higher-education institutions.

The Strategy for Science, Technology and Innovation 2006–2013 (SSTI) was launched in July 2006 and offers a vision of R&D for the Irish research system to 2013. It seeks to achieve:

- Coherence among key funding initiatives across all fields of science;
- A 'good fit' between infrastructural investments in the institutions and research and postgraduate education programmes;
- An appropriate balance between collaboration and competition among higher-education institutions.

In early 2007 the fourth PRTL cycle was announced. This will build on previous investment in higher education,





teaching, learning and research capacity and will complement the investment in R&D currently being channelled through the SSTI and the newly announced National Development Plan for 2007–2013. (Government of Ireland 2007)

These policy milestones challenge Ireland's higher-education institutions and funding agencies to identify clear strategies and structures to ensure the success of the government's national science policy and investment in R&D. However, there will also be a responsibility on government to ensure that its agencies will be in a position to manage the various strands of the implementation process efficiently and effectively to achieve the stated national R&D objectives.

A further policy context is provided by the European Union (EU), in particular by the Lisbon Agenda which seeks to make the EU 'the most dynamic and competitive knowledge based economy in the world by 2010' through increased expenditure in R&D across key domains including business, higher education and government. The Barcelona European Council set a target of spending three per cent of Gross Domestic Product (GDP) on R&D by 2010. The Irish target for R&D investment is 2.5 per cent of GDP for 2013 (Forfás 2004a). Other related policy guidelines for member states are provided by the Bologna declaration regarding higher education, and the EU Council Resolution on Lifelong Learning.

There is a strong trend across European domestic R&D systems to prioritise investment in a small range of research areas through the development of research centres of excellence, some of which are located inside, and others outside, the higher-education sector. There are concerns that this may lead to the growing detachment of teaching and learning from research within the higher-education institutions to the disadvantage of both activities.

4.2 POLICY ACTORS

The DES and its agencies are central to the promotion of HSS policy, funding and enabling structures in Irish higher education. Achieving a world-class research and development capability in institutions of higher education is identified as a key objective in the department's Statement of Strategy 2005–2007.

The Higher Education Authority has statutory responsibilities for the planning and development of the higher-education sector. The HEA block grant provides core

funding for teaching, learning and research in the universities, and the HEA itself also administers the PRTL on behalf of the DES.⁵

The PRTL has been crucial to the HSS. It has encouraged a more systematic approach to the funding of R&D and teaching and learning activities in the higher-education sector. It has encouraged higher-education institutions to develop strategic priorities in accordance with their respective strengths. From this process, funding has been allocated on a competitive basis to embed research and infrastructural developments within Ireland's higher-education institutions.



The IRCHSS is a major funder of HSS research. It is an autonomous body funded through the DES to promote excellence in HSS research, including research in law and business studies. The IRCHSS complements the PRTL, first by recognising excellence at an individual level, and more recently by funding collaborative and project research in both national and international contexts. Its funding schemes act as a bridge between the strategic and 'top-down' concerns of the PRTL and a

'bottom-up' approach to research that follows the initiatives of individual researchers and provides support for individuals as well as collaborative research teams (IRCHSS 2004). The IRCHSS also provides policy advice on HSS research, administers a range of specific research schemes, and has an active international programme. Through its membership of the European Science Foundation (ESF), the IRCHSS offers opportunities for Irish researchers to associate with researchers outside Ireland. Its membership of European research networks such as HERA (Humanities in the European Research Area) and NORFACE (New Opportunities for Research Funding Co-operation in Europe) provide Irish researchers with opportunities to participate in European and international research networks and policy forums. The council is also the National Contact Point (NCP) for HSS-related priorities under the EU Framework Programmes.

Both the PRTL and the IRCHSS have had a profound influence on the HSS community, not least by encouraging the HSS to see itself, no more or less than other areas

⁵ Recognition of the need to think bigger and be more systematic in approaches to funding R&D and teaching and learning activities in the higher-education sector informed the design and launch of the PRTL. The PRTL seeks to strengthen the long-term capacity of third-level institutions for high-quality research. It seeks to assist higher-education institutions to enhance and develop their research capabilities.

of research, as part of the new research architecture. However, much remains to be done to ensure the future capacity and excellence of Irish HSS research.

The Department of Enterprise, Trade and Employment (DETE) and its agencies, including Forfás, Enterprise Ireland (EI) and Science Foundation Ireland (SFI) also play an important role in informing and promoting national science and research policy. Of particular interest to the HSS is the DETE's role on the European stage, primarily through its oversight of the EU Framework Programmes and COST (European Cooperation in the field of Scientific and Technical Research).⁶

In recent years, the interests of the DES and the DETE have been brought together in a more formal manner through the Inter-Departmental Committee on Science, Technology and Innovation (IDC), chaired by the DETE (IDC 2004). The IDC drives the pursuit of national R&D objectives, examines and reports on any issue referred to it by the Cabinet Sub-Committee on Science, Technology and Innovation (CSC), and is charged with monitoring the overall implementation of the SSTI. Two new structures have been established to support the implementation of the SSTI: the Higher Education Research Group (HERG), which is chaired by the DES, and Technology Ireland, which is chaired by the DETE.

Outside the formal structures of government departments and its agencies, the most significant enablers for HSS interests are the higher-education institutions themselves. Higher-education institutions house much of the collective and individual knowledge in the HSS, are the main channel through which research funding is directed, and are crucial to the education of new generations of researchers. As recently noted by Dr John Hegarty, Provost of Trinity College Dublin, 'A great university is one in which there is a balance between the humanities and the sciences across a wide sweep of disciplines and across the breadth of human knowledge and experience' (Hegarty 2006).

Higher-education institutions have a major role in creating sustainable and attractive environments for the HSS research community by:

- Encouraging due recognition and prioritisation of HSS research within the strategic priorities of Irish higher-education institutions;
- Ensuring that the HSS are specifically represented within senior management structures and research offices;

⁶ See Chapter Seven for more information on Ireland's involvement in European research programmes and networks.

- Ensuring that the institutional status of the HSS will not be adversely affected by new resource-allocation models;
- Liaising actively with key public research agencies to drive initiatives to strengthen the research interests and careers of HSS researchers.

4.3 ADVOCACY

Initiatives such as the former RIA Social Science Council and the establishment of the IRCHSS have played an important and active role in raising awareness, fostering research careers and creating domestic and transnational research networks.

The HSS research community should seek to strengthen the voice and resource base of existing advocates, such as the IRCHSS, the RIA, the Irish Universities Association (IUA) and the Council of Directors of Institutes of Technology, and ensure that the HSS community is fully represented within policy and implementation structures such as HERG.



‘PROMOTING THE STUDY OF SCIENCE, POLITE LITERATURE AND ANTIQUITIES’
THE ROYAL IRISH ACADEMY AND THE HUMANITIES AND SOCIAL SCIENCES ...

Since its establishment in 1785 as a society for ‘promoting the study of science, polite literature and antiquities’, the RIA has played a very active role as a supporter and promoter of research in the humanities and social sciences. Today, the RIA is funded through the HEA and its position on research is informed by a wide membership drawn from North and South.

In more recent years the RIA adopted a new strategic plan, developed its role as a neutral advisor and facilitator of debate, and complemented the other and various national agencies that seek to recognise and promote excellence. Drawing on an elected membership of 369 specialists, equally divided between the HSS and the natural sciences, and on the expertise of its own professional staff, it has become an acknowledged expert forum for government departments and other bodies to analyse policy needs.

The supports for research, provided by the RIA, takes a dual form, with on the one hand, investigation of policy issues, and, on the other hand, direct funding of research. Such research may take the form of long-term projects such as the Dictionary of Irish Biography or the Foclóir Stairiúil na Nua-Ghaeilge, undertaken by teams of researchers, or alternatively of smaller-scale individual research projects through mobility schemes.

RIA research project accounts	2001–2002	2002–2003	2003–2004	2004–2005	2005–2006
Foclóir na Nua-Gaeilge	300,103	216,188	185,479	163,890	330,135
Celtic Latin Dictionary	89,468	87,212	90,164	97,498	100,796
International Exchanges & Fellowships ¹	20,652	24,014	21,584	27,489	23,275
Irish Historic Towns Atlas	68,962	86,238	97,425	107,205	125,917
Dictionary of Irish Biography	555,184	561,612	588,749	507,474	512,032
Documents on Irish Foreign Policy	96,950	153,529	106,195	141,442	127,051
Third Sector Research Programme	320,682	529,043	168,353	626,366	123,604
TOTAL:	1,452,001	1,657, 836	1,257,949	1,671,364	1,342,810

Source: Data supplied by RIA on request.

Notes:

¹ Includes allocations to fellowships in the sciences.

The visibility of HSS research would benefit from a fuller connection with audiences and stakeholders outside of the academic community. Little is known about the use and impact of HSS research upon policymaking. The HSS research community should pursue an active policy of research dissemination to increase the profile, impact and use of HSS research. Regular dialogue between HSS researchers and policymakers would help to maximise the value added to existing data infrastructures and HSS.

At a basic level, there is no central repository for information on HSS research or centralised database for the HSS research community. The work of the group was hampered by an absence of data and a lack of coherence across databases for higher-education research. These deficits have been previously noted (Bric 1999).⁷ The group supports the establishment of a national research register to overcome these information gaps. This was recognised previously by the RIA in the hope that it would be taken up by the European Strategy Forum on Research Infrastructures (ESFRI).

4.4 STRATEGIC PLANNING IN THE HSS: WAYS FORWARD

In an economic context, the 2004 OECD *Review of Higher Education in Ireland* observed that 'Ireland was one of the first European countries to grasp the economic importance of education and economists suggest that this upskilling of the labour force accounts for almost 1% per annum of additional national output over the last decade or so'. These gains cannot be taken for granted. British experience has shown that the continued development of a highly skilled workforce is necessary to maintain both productivity levels and competitive advantage relative to other economies. These arguments apply to the HSS no less than to other areas of knowledge.

In many ways, some subtler than others, the skills base of the HSS directly facilitates the creation of wealth. Full economic and social potential is achievable only by recognising the potential of these skills as part of an integrated and rounded approach to research and development in Ireland. As Lord May, former President of the Royal Society, has observed.

Science does no more than set the stage, providing and clarifying the choices. Our values and feelings about the society we wish to build, in this wiser world of tomorrow, will then write the play. But whence

⁷ See Solow et al (2002) for a discussion of the importance of data for humanities research.

the values? What shapes them? What guides the subsequent choices? These are hugely difficult, yet utterly fundamental questions. Ultimately the answers, insofar as there are answers, will illustrate better than anything else just how indivisible is the continuum from the arts, humanities and social sciences through to the biological and physical sciences

(British Academy 2004, 35).

Like other European countries, Ireland will need graduates with a highly developed capacity to analyse and understand the values and social characteristics of the global economy. In this sense, the strategic needs of the HSS converge with those of Irish society generally.

Ireland needs critical and imaginative research in the HSS to ensure that the potential of innovation can be realised fully. Researchers in the sciences, engineering and technology (SET) greatly benefited from the identification of priority areas in the 1999 Technology Foresight Exercise.⁸ A similar exercise should be undertaken for the HSS research community: this proposal enjoys broad support across the HSS research community⁹ and should be developed as a matter of urgency. It is suggested that the consultative exercise¹⁰ should seek to identify the priority needs of the HSS community in respect of a number of broad issues including:

- Priority research areas with reference to existing research capacity, future potential for research excellence and contribution to strategic policy research;
- Appropriate balance between support for a critical mass and a commitment to individual, investigator-led research;
- Research infrastructures;
- Research funding;
- Research dissemination and communication;
- Doctoral training and the development of research career pathways.

⁸ For more information on foresight exercises see Martin 1995.

⁹ In 2005 the IRCHSS convened a focus group on HSS national support requirements with regard to researchers' involvement in the then-upcoming EU Seventh Framework Programme for research. It called for the development of a national agenda for HSS research (IRCHSS 2005).

¹⁰ In early 2006 a similar exercise was undertaken for the archaeology community. The Minister for Environment, Heritage and Local Government requested that the Heritage Council prepare recommendations on the research needs of Irish archaeology. Following initial consultations an interim report was prepared on the development of the research infrastructure and specific themes into which current and relevant research needs can be placed.



4.4.1 KNOWLEDGE TRANSFER AND THE HSS

An explicit, but often overlooked, aspect of this way forward is the recognition that while HSS research is a specialised higher-education interest, it is also a social good. This is not to imply that such research does not also impact on society in a direct way, and that, as in other areas of scientific research, there is no immediate link between knowledge production and its social application and exploitation. However, in all areas of research the best outcomes are often indirect and may appear later and in forms different to those initially expected. As the history of invention suggests, this is implicit to the process of innovation.

In the HSS, just as in science and technology, the link between research findings and their social application and exploitation is not necessarily direct and immediate. This is not a defect in the dissemination of knowledge, but an inevitable effect of the establishment and encouragement of those means of the discovery of knowledge which hold out the best hope of genuine innovation and development.

The transfer and application of knowledge generated in the HSS is a complex and multi-faceted issue, which requires researchers to participate in a range of interface activities with the private and public sectors. Insofar as social and economic growth in Ireland is predicated on the creation of a vibrant knowledge society, it is clear that knowledge transfer must be a major concern. Enabling processes to meet this challenge include:

- Fuller recognition of, and provision for, lifelong learning;
- Increased and better partnerships between higher-education institutions and cultural institutions, and industry;
- Enhanced flexibility in higher-education doctoral programmes allowing for increased provision of part-time programmes.

5 The HSS in Ireland: funding profile

This chapter examines investment in HSS R&D in the higher-education sector in Ireland and discusses key trends drawing on the measure Higher Education Expenditure on Research and Development (HERD)¹¹ as this is the key source of funding for Irish HSS research.¹² The object is to situate the HERD data for the HSS within the broader national and international data on total HERD.

Section 5.1 explores the historic Irish data and provides a brief discussion of trends in the composition of HSS higher-education researchers as a supplement to the data on expenditure. Section 5.2 provides a number of international comparisons and Section 5.3 summarises the key observations emerging from this analysis.

5.1 TRENDS IN IRISH HSS HERD

Between 1998 and 2004 total Irish HERD increased by 94 per cent from €253.6m in 1998 to €491.7m in 2004. Most of this increase occurred between 2000 and 2004, when an additional €215m (constant prices) was invested (see Table 1).¹

Actual expenditure on HSS R&D in the higher-education sector (i.e. the allocation to HSS R&D from total HERD) rose by approximately €50m from €71m in 1998 to €120.5m in 2004—an overall percentage increase of 70 per cent.¹⁴

Despite this increase in the actual amount invested, the HSS are the only field of science whose *percentage share* of total HERD declined over the period, falling from a high of 29 per cent in 2002 to 25 per cent in 2004. This decrease was proportionately more severe for the humanities, whose percentage share of total HERD fell from ten to eight per cent, while the social sciences' share fell from nineteen to seventeen per cent (see Chart 1).

¹¹ In accordance with OECD classification structures HERD in Ireland is classified into six broad academic fields: natural sciences, engineering, medical sciences, agricultural sciences, social sciences and humanities. HERD funding sources are broken down into six major categories: direct government (targeted initiatives such as the PRTL), indirect government (derived from the HEA annual 'block grant' to universities), EU, foreign sources, Irish business, 'other and own' (which refers to higher-education institutions capacity to source funds independently e.g. from philanthropic sources) (Forfás 2005a).

¹² While beyond the scope of this particular paper, philanthropic contributions and donations are widely acknowledged to have provided much support for HSS research in recent years.

¹³ Forfás supplied much of the data used in the tables in this chapter. The original data were submitted to Forfás for compilation from the universities, institutes of technology and technology centres located within colleges. The data are prepared in accordance with the OECD/Frascati Manual (1993/2002) guidelines for estimating levels of research and development in the higher-education sector (Forfás 2005a).

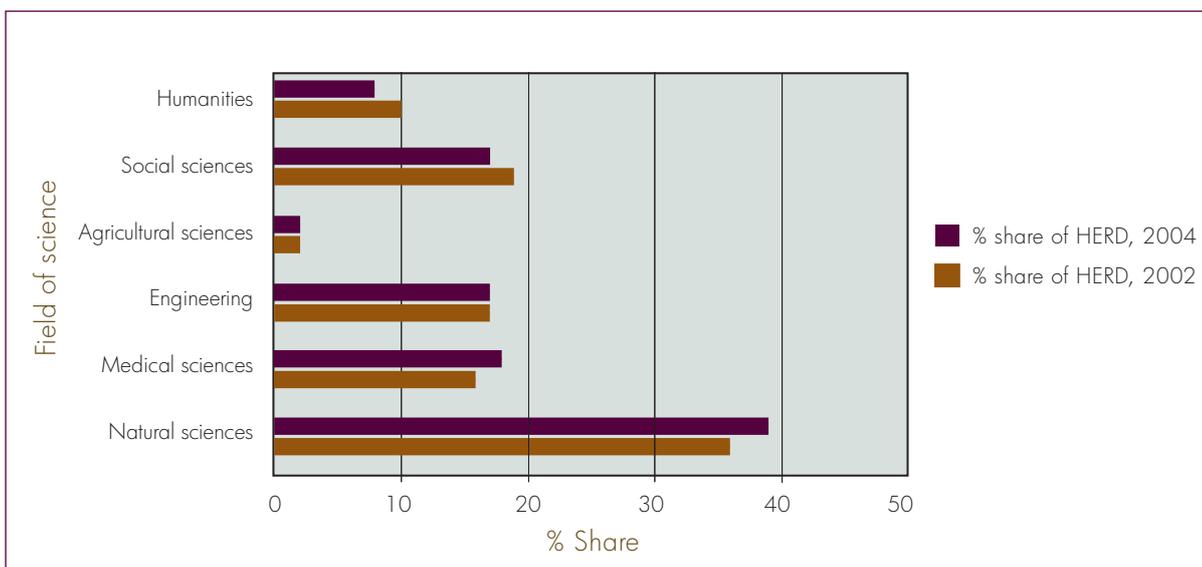
¹⁴ Based on an examination of expenditure patterns in HERD allocations to the HSS in comparison to total HERD.

Table 1—Higher Education Expenditure on Research and Development in the humanities and social sciences, 1998–2004 (€m constant 2004 prices)

	1998	2000	2002	2004	% change 1998–2004
HSS HERD €m constant (2004) prices	71.0	79.8	98.8	120.5	70%
Total HERD €m constant (2004) prices	253.6	276.3	340.9	491.7	94%
HSS as % of total HERD	28%	29%	29%	25%	

Source: Forfás 2000, 2003, 2004a, 2004b, 2005a.

Chart 1—Percentage share of total HERD by field of science, 2002 and 2004



Source: Forfás 2005a, Figure 5.

5.1.1 SOURCES OF HERD

There are significant changes in the composition of total HERD by source of funds from 1998 onwards (see Table 2). Investment in higher-education R&D by indirect government sources (i.e. the allocation to R&D made by universities from the HEA block grant) increased by approximately €100m. Despite this significant increase indirect government's actual percentage share of total HERD remained constant at 42 per cent due to substantial increases in other sources of funding, notably direct government funding sources.

By 2004 direct government funding accounted for 41 per cent of total HERD an approximate overall increase of €140m in expenditure from 1998 levels. Meanwhile, the percentage share of total HERD supplied by EU funding, foreign, Irish business and 'other and own' sources declined substantially.

Table 2—Source of total HERD funds for all fields of science expressed as a percentage share of total HERD, 1998–2004 (€m constant 2004 prices)

Source of Funding	1998 %	2000 %	2002 %	2004 %
Direct government	24	24	40	41
EU	16	12	7	6
Foreign sources	3	4	2	2
Irish business	7	5	4	3
Other & own	8	13	9	6
Indirect government	42	42	38	42
Total	100	100	100	100
Total HERD (€m)	253.6	276.3	340.9	491.7

Source: Forfás, 2000, 2003, 2004a, 2004b, 2005a.

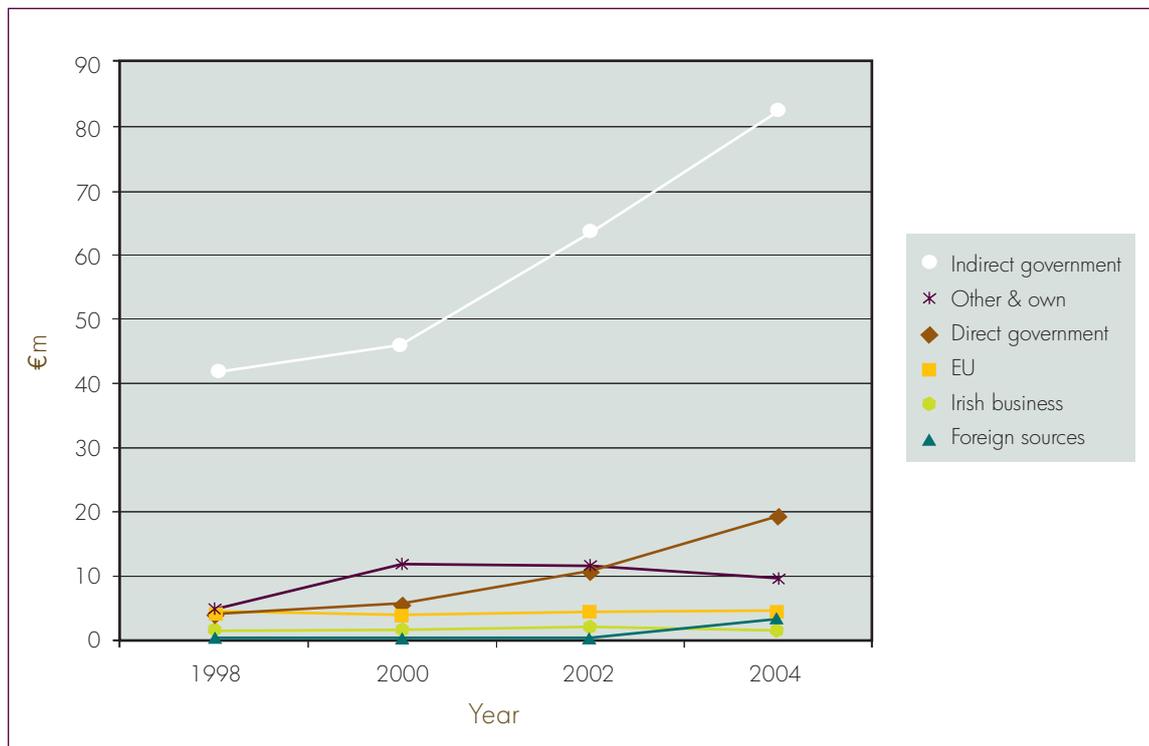
A similar pattern is reflected in the breakdown of the sources of funding for HSS HERD (see Table 3 and Chart 2). Indirect government sources of funding are historically the largest funding source for HSS HERD and while indirect government expenditure on HSS R&D increased by over 50 per cent (from €53m to €84m), its percentage share of total HSS HERD remained relatively constant at an average of nineteen per cent.

Table 3—HSS percentage share of total HERD expenditure by source of funds, 1998–2004
(€m constant 2004 prices)

Source of funding	1998 %	2000 %	2002 %	2004 %
Direct government	2	2	3	4
EU	2	2	1	1
Foreign sources	0	0	0	1
Irish business	1	1	1	0
Other & own	2	5	4	2
Indirect government	21	19	20	17
HSS % share of total HERD (based on current €m prices)	28	29	29	25
Total HSS HERD (€m constant 2004 prices)	71.0	79.8	98.8	120.5

Source: Forfás 2000, 2003, 2004a, 2004b, 2005a.

Chart 2—HSS HERD sources of funding, 1998–2004



Source: Forfás 2000, 2003, 2004, 2005a.

In contrast, the percentage share of total HSS HERD drawn from other sources including the EU, 'other and own', and Irish business sources declined. It may be that HSS researchers chose to prioritise applications for domestic rather than EU funding schemes during this period given the significant growth in domestic and national-level funding sources. Alternatively, there is some evidence that the high level of administration involved in the application requirements and the complexity of the EU collaboration mechanisms may have acted as barriers to HSS researchers' participation (IRCHSS 2005).

However, as Table 3 also shows, investment in HSS R&D by direct government funding sources (i.e. funding channelled through targeted research initiatives such as the PRTL) doubled between 1998 and 2004.

Table 4 provides an overview of direct government funding for HSS R&D by source for the period 1998–2005 (see also Chart 3). The increase in direct government funding sources of HSS HERD was channelled largely through targeted initiatives such as the:

- PRTL: €46.1m was allocated to the HSS across Cycles 1 to 3, funding, for example, twelve research programmes and centres in the HSS (HEA 2004a);
- IRCHSS: the various IRCHSS research initiatives and schemes since 1999 have seen €34.6m allocated in support of HSS research;
- Awards made to specific HSS research projects by government agencies and bodies such as the Health Research Board (HRB) (€9.8m allocated in support of HSS research), Teagasc (€13.4m) and 'other' HEA research programmes.

IRCHSS is the principal HSS funding agency in terms of its percentage allocation (at 100 per cent) to the HSS, followed by 'other' HEA awards (12 per cent), the HRB (8.2 per cent), the PRTL (8 per cent) and Teagasc (3.9 per cent).

Most of the increased investment channelled through direct government sources of funding is allocated to HSS recurrent expenditure.

Only two of the direct government-funders of HSS HERD—the HRB and the PRTL—allowed for capital expenditure and each allocated less than a third of their HSS HERD share to capital expenditure.

Table 4—Estimated HSS HERD allocation by source (direct government funding only) and percentage funding allocation, 1999–2004 (€m)

Agency	1998	1999	2000	2001	2002	2003	2004	2005
Total IRCHSS HERD	¹	0.9	1.6	2.9	6.3	7.4	7.4	8.1
HSS IRCHSS HERD		0.9	1.6	2.9	6.3	7.4	7.4	8.1
% allocation to HSS	-	100						
Total PRTL HERD ²	¹	206	50	320	²	²	²	²
HSS PRTL HERD		7.0	20.2	18.9				
% allocation to HSS	-	3.4	40.4	5.9	-	-	-	-
Total Health Research Board (HRB) HERD ³	5.58	6.60	10.00	10.84	14.78	22.20	25.70	22.69
HSS HRB HERD				2.2	0.8	1.3	1.8	3.7
% allocation to HSS	0	0	0	20.30	5.40	5.85	7.00	16.30
Total other HEA awards HERD ⁴	¹	¹	1	1.3	1.5	3.5	3.4	3.1
HSS other HEA awards HERD			0	0	0	0.84	0.80	0.43
% allocation to HSS	-	-	0	0	0	24.0	24.0	14.0
Total Teagasc HERD	29.8	28.9	35.7	43.8	51.5	46.4	50.5	55.9
HSS Teagasc HERD	1.650	1.625	1.705	1.612	1.850	1.598	1.723	1.599
% allocation to HSS	5.5	5.6	4.8	3.7	3.6	3.4	3.4	2.9
Total Enterprise Ireland(EI) HERD	12.1	12.7	34.6	32.7	32.9	25.4	20.3	⁵
HSS EI HERD	0.01	0.02	0.04	0.02	0.05	0.03	0.05	
% allocation to HSS	0.1	0.2	0.1	0.1	0.2	0.1	0.3	-
Total Science Foundation Ireland HERD	¹	¹	¹	¹	31.0	64.9	108.6	122.2
% allocation to HSS	¹	¹	¹	¹	0	0	0	0
Total IRCSET HERD	¹	¹	¹	¹	4.4	10.5	13.8	15.9
% allocation to HSS	¹	¹	¹	¹	0	0	0	0

Source: Listed agencies: data gathered directly from each agency. There are timing issues between the funding (calendar year) and HERD (academic year) and roll-overs of money into the next financial year. Allocation does not always equal expenditure and is not always picked up in the performance survey (HERD) or is assigned to incorrect areas. Consequently, these figures may not exactly match the HERD figures provided through Forfás.

Notes:

¹ Organisation/research award scheme not in existence or data not available for this period.

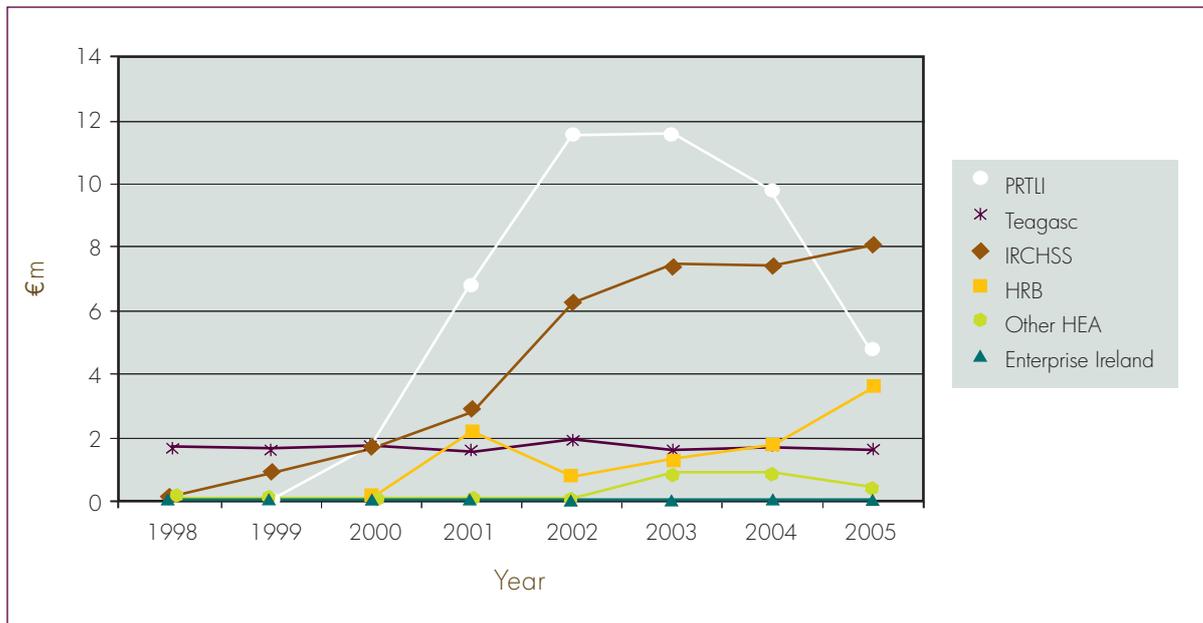
² In December 2006 three cycles of funding were announced under the PRTL: Cycle 1 (announced 1999) covered the funding period 2000–2003, Cycle 2 (announced 2000) covered the funding period 2001–2004, and Cycle 3 (announced 2001) covered the funding period 2002–2006. A call for applications to Cycle 4 was issued in January 2007.

³ The HRB does not categorise its funding awards by general field of science. Instead, it categorises all its funded activities by field of health research i.e. biomedical science, health services, population health, etc. The RIA working group estimated these figures by identifying funding awarded through two HRB schemes—the HRB non-biomedical awards (data not available prior to 2001), and the R&D section of the HRB (data not available prior to 2002)—to projects with a social-science research focus either in their research topic or primary research methodology.

⁴ 'Other' HEA research awards included in this analysis are: the HEA North South Research Programme Strand 1; the Digital Technology Fund; and the Transport Research Fund. Research funded under Strand 2 of the HEA North South Research Programmes is not included as the Special European Union Programmes Body funds it.

⁵ Data not available for 2005.

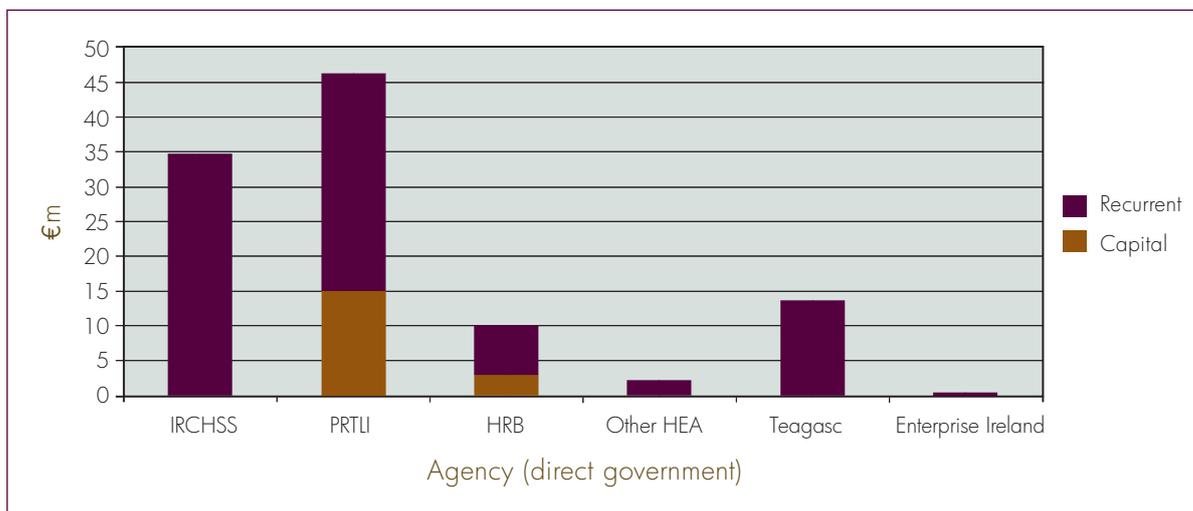
Chart 3—HSS HERD direct-government funding by source, 1998–2005



Source: Listed agencies (data supplied on request).

Notes: For the purposes of this chart, the funding allocated to the HSS under Cycles 1 to 3 of the PRTLI have been cumulatively averaged over the period from 2000 to 2005/06.

Chart 4—Capital and recurrent allocations from direct government sources of HSS HERD, 1998–2005



Source: Listed agencies (data supplied on request).

Table 5—Capital and recurrent breakdown of direct government funding by source to the humanities and social sciences (€m)

Agency	1998	1999	2000	2001	2002	2003	2004	2005
IRCHSS	1	0.9	1.6	2.9	6.3	7.4	7.4	8.1
Capital	-	0	0	0	0	0	0	0
Recurrent	-	0.9	1.6	2.9	6.3	7.4	7.4	8.1
PRTU	1	7	20.2	18.9	2	2	2	2
Capital	-	3.4	8.1	4.8	-	-	-	-
Recurrent	-	3.6	12.1	14.1	-	-	-	-
HRB	3	3	3	2.2	0.8	1.3	1.8	3.7
Capital	-	-	-			0.43	0.25	2.50
Recurrent	-	-	-	2.20	0.78	0.86	1.58	1.20
Other HEA	1	1	1	1	1	0.84	0.80	0.43
Capital	-	-	-	-	-	0	0	0
Recurrent	-	-	-	-	-	0.84	0.80	0.43
Teagasc	1.650	1.625	1.705	1.612	1.850	1.598	1.723	1.599
Capital	0.050	0.025	0.055	0.012	0.055	0.010	0.050	0.030
Recurrent	1.600	1.600	1.650	1.600	1.795	1.588	1.673	1.569
EI	0.01	0.02	0.04	0.02	0.05	0.03	0.05	4
Capital	0	0	0	0	0.003	0	0	-
Recurrent	0.01	0.02	0.04	0.02	0.05	0.03	0.05	-

Source: Listed agencies: data supplied on request.

Notes:

¹ Organisation/research award scheme not in existence at this time.

² In December 2006 three cycles of funding were announced under the PRTU: Cycle 1 (1999) covered the funding period 2000–2003, Cycle 2 (2000) covered the funding period 2001, and Cycle 3 (announced 2001) covered the funding period 2002–2006. A call for applications to Cycle 4 was issued in January 2007.

³Data on HRB non-biomedical research awards and R&D awards was not available prior to 2001.

⁴ Data not available for 2005.

5.1.2 HSS RESEARCH PERSONNEL IN THE HIGHER-EDUCATION SECTOR

The majority of HSS researchers are based within the higher-education sector but may also be employed within the state sector, non-governmental organisations or public-research agencies. This discussion draws on Forfás survey data which

measured the human resources involved in research in the higher-education sector between 1998 and 2004.

Between 1998 and 2004 the number of researchers in higher education rose by 71 per cent—from 2,425 full-time equivalent (FTEs) researchers in 1998 to 4,151 in 2004. While the number of HSS researchers (FTEs) grew from 843 in 1998 to 1,215 in 2004—an increase of 42 per cent—this growth failed to keep pace with the overall rate of increase across all fields of science. At the same time, the HSS share of total higher-education researchers (FTEs) fell from 35 per cent in 1998 to 29 per cent in 2004 (see Table 6).

Table 6—Number of HSS researchers (full-time equivalents or FTEs) by occupation compared with total researchers in all fields of science (FoS) in the higher-education sector, 1998–2004¹

Researcher Occupation	1998		2000		2002		2004	
	HSS	All FoS ²						
Academic staff	791	1394	786	1380	839	1547	716	1695
Postdoctoral fellows	8	267	31	267	22	310	146	964
Contract lecturers	3	3	3	3	26	150	196	494
Research assistants	44	764	45	501	85	790	157	998
Total researchers	843	2425	862	2148	972	2797	1215	4151
All HSS researchers as a % of total 'all FoS' researchers	35%		40%		35%		29%	

Source: Forfás's Survey of Research and Development in the Higher Education Sector (Forfás 2000, 2003, 2004a, 2004b, 2005a, 2005b).

Notes:

¹ The Forfás survey data takes the time spent on research into consideration and personnel data are supplied as full-time equivalents. For the purpose of this table the totals do not include the FTE figures for technicians and other staff.

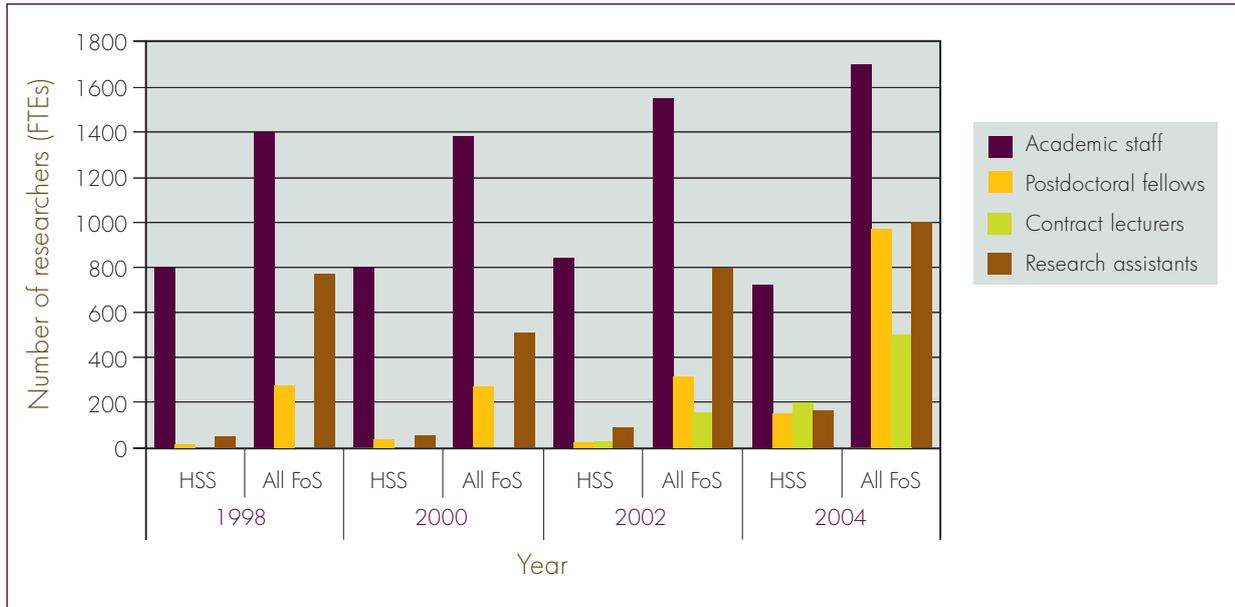
² Total includes HSS researchers but excludes technicians and other support staff.

³ Data on the occupation category 'contract lecturers' was not included in data collected by Forfás in 1998 and 2000.

Changes are also evident in the composition of the HSS higher-education researcher population with strong growth in the numbers occupying contract-lecturer, postdoctoral and research-assistant posts. The increase in contract lecturers is particularly

striking—from zero in 2000 to 196 in 2004. Academic staff in the HSS accounted for 42 per cent of the total number of higher-education researchers (FTEs) in 2004, a drop from 57 per cent of FTEs recorded in the 1998 HERD survey. This decline is in part a reflection of the increase in human resources in other scientific areas within the broad higher-education sector as result of new research-funding initiatives since 2000, particularly in the science and technology sectors.

Chart 5—Number of HSS researchers compared with total number of researchers in all fields of science in the higher-education sector, 1998–2004*



Source: Forfás Survey of Research and Development in the Higher Education Sector 2000, 2003, 2004, 2005.
 *Excludes other research personnel such as technicians, administrative staff, etc.

Given these changes and in particular the growing number of researchers occupying short-term research posts, the long-term sustainability of the HSS higher-education teaching and research community could be at risk.

5.2 EU HSS HERD: EU COMPARISONS

HERD relative to some measure of domestic output product or national income is typically one of the key metrics used in making cross-country comparisons. Due to difficulties with using Gross Domestic Product (GDP) in the Irish case, HERD relative

to Gross National Income (GNI) is used to explore how Ireland's expenditure on HERD compares with other EU countries.¹⁵

Using the GNI metric, Ireland's expenditure on HERD is relatively low—less than one per cent of the GNI value of the country with the highest GNI within the EU. Therefore, comparisons are expressed in this format; EU-average figures for the HERD share (in terms of one per cent of GNI for the years 2000–2004) are around 0.4 of one per cent, with a small number of countries displaying figures significantly above the average, namely Denmark, the Netherlands, Austria, Finland, Sweden, Iceland and Switzerland (see Chart 6, Appendix III).¹⁶ While changes to the overall EU average are modest, the pattern is upwards to 2003, with a levelling off in 2004.

Ireland's performance over the period represents a significant improvement—from less than 0.3 to exactly 0.4 per cent in 2004. Given that GNI has risen more quickly in Ireland than elsewhere in the EU over that period, it represents a significant increase in relative expenditure. Despite this increase Ireland remains below the EU average, albeit to a much lesser extent than in 2000.

The international data are much less complete for HERD spending on HSS, both by year and by country and it is not possible to compute EU averages due to difficulties arising from incomplete data. However, the Nordic countries are significant investors under this measure (see Chart 7, Appendix III). In the case of many countries, Ireland included, the share of HERD going to HSS has fallen (see Chart 8, Appendix III). This pattern may reflect greater emphasis on non-HSS areas of research in national strategies, but it may also reflect the greater capital requirements outside HSS over the time period, which would naturally bias the HSS share downwards.

5.2.1 HSS HERD: COMPARATOR COUNTRIES

It is useful to examine how countries differ in absolute funds spent on HERD and how HERD is sourced. A comparison of HERD in Ireland with the selected comparator countries of Finland, Norway, Portugal and Slovenia serves to establish the relative health or otherwise of Irish funding for the HSS in a European context. These countries were identified as important points of comparison for the Irish HSS research community. Comparisons with Finland and Norway are particularly useful as these countries are broadly similar in population terms and in scale of research activity. Portugal was chosen, as it, like Ireland, was a designated recipient of EU Structural-Fund investment from the late 1980s. Slovenia was chosen as it has developed a focused and specific research policy relatively recently (see Appendix IV).

¹⁵ GDP is a measure of the economic performance of a national economy over a given period. It indicates the value of the goods and services produced in the economic territory (value added) unless they are used as intermediate consumption for the production of other goods and services. GNI accounts for flows in and out of the country. For many countries, the flows tend to balance out, leaving little difference between GDP and GNI. However, the outflows of profits and income from multi-national corporations based in Ireland often exceed income flows back into the country. In other words, while Ireland produces a lot of income per inhabitant GNI shows that less of it stays in the country than GDP might suggest (see: http://oecdobserver.org/news/fullstory.php/aid/1507/GDP_and_GNI.html, last verified 12 January 2007)

¹⁶ See Chart 6, Appendix III. The chart has two EU measures—EU 25 and EU 15, and the data are in current prices.

Table 7 shows HERD as a percentage of GNI between 2000 and 2004 in Ireland and the selected countries used for comparison in current prices.¹⁷ In 2000 Ireland, at 0.27 of one per cent of GNI, was the second lowest of the five countries, behind all but Slovenia. By 2004 the latest year for which the international data are available, Ireland has moved up to 0.39 of one per cent of GNI and while this places Ireland above Portugal and Slovenia, it continues to lag considerably behind Finland and Norway.

Table 7—HERD as a percentage of GNI in Ireland, Finland, Norway, Portugal and Slovenia, 2000–2004 (€m current prices)

	2000 %	2001 %	2002 %	2003 %	2004 %
Ireland	0.27	0.28	0.30	0.34	0.39
Finland	0.60	0.60	0.64	0.67	0.68
Norway	n/a	0.41	0.45	0.47	0.48
Portugal	0.29	0.30	0.29	0.29	0.28
Slovenia	0.24	0.25	0.24	0.18	0.19

Source: Eurostat.

Despite the very considerable increase in HERD expenditure in recent years, Ireland still spends much less on total HERD (€351.7m) than Finland (€737.1m), Norway (€494.72m) and Portugal (€421.39m). Spending on HERD in Slovenia is increasing but remains low in absolute terms (see Table 8).¹⁸

Table 8 also shows the breakdown in the different sources of HERD for all fields of science. While there are differences in the way in which HERD is sourced in these countries, and while each country has increased its expenditure on direct government sources of HERD funding, the HSS in Ireland continue to receive a lower share of this source of funding relative to the comparator countries. Although the percentage share of HSS total HERD drawn from indirect government sources has remained constant in Ireland, the actual amount of expenditure from this source is considerably lower than in Finland and Norway, despite positive increases over the period of analysis.

It should also be noted that Irish research has traditionally been relatively successful in obtaining funding from EU sources but in recent years the Irish take from EU funds has clearly declined, particularly when compared to Finland, Norway and Portugal. Finally, local business as a source of HERD is far lower in Ireland than in Finland and Norway.

¹⁷ Current dollars means 'nominal' whereas constant dollars means 'real'. The value of output can increase for two distinct reasons. It can increase because more goods and services are being produced, or it can increase because prices of goods and services have risen. To eliminate the effects of changing prices, one must compute real or constant-dollar GDP (or GNI), which values the output of various time periods with a set of fixed prices. The current-dollar or nominal GDP (or GNI) is the value of output measured in prices which existed when the output was produced.

¹⁸ Slovenia was not eligible for EU R&D funding during this period.

Table 8—Sources of HERD expenditure on all fields of science, 1998–2004 (millions of Purchasing Power Standards (million of national currency—euro for euro area), constant 1995 prices) ¹

	Ireland	Finland	Norway ²	Portugal	Slovenia	Year
Direct government	44.44	225.48	89.30	n/a	48.48	1998
	54.80	274.89	84.53	n/a	63.40	2000
	102.89	285.21	108.73	n/a	72.47	2002
	146.58	n/a	n/a	n/a	n/a	2004
EU	30.51	17.90	n/a	9.65	n/a	1998
	24.09	24.71	7.54	13.75	n/a	2000
	17.87	39.82	8.72	14.77	n/a	2002
	22.04	n/a	n/a	n/a	n/a	2004
Foreign sources	6.09	11.53	13.12	1.95	4.10	1998
	7.60	14.60	4.55	4.84	4.99	2000
	5.20	19.84	5.21	5.24	5.60	2002
	7.23	n/a	n/a	n/a	n/a	2004
local business	12.25	25.50	24.29	5.09	7.37	1998
	10.64	36.49	23.63	4.03	6.28	2000
	8.97	45.41	26.54	4.89	8.58	2002
	9.03	n/a	n/a	n/a	n/a	2004
Other & own	14.45	12.51	22.19	21.22	0.84	1998
	18.66	13.17	23.14	20.41	0.32	2000
	15.98	26.54	25.47	17.79	2.06	2002
	22.26	n/a	n/a	n/a	n/a	2004
Indirect government	79.26	271.55	322.26	n/a	4.43	1998
	83.45	291.32	289.15	n/a	7.57	2000
	92.04	320.28	320.04	n/a	6.84	2002
	144.55	n/a	n/a	n/a	n/a	2004
Total	187.00	564.47	471.16	350.97 ³	65.22	1998
	199.24	655.18	432.54	408.49 ⁴	82.56	2000
	242.95	737.10	494.71	421.39 ⁵	95.55	2002
	351.69	n/a	n/a	n/a	n/a	2004

Source: OECD R&D database (January 2006). Conversion indices provided by Eurostat. Irish data supplied by Forfás.

Notes:

¹ Purchasing Power Parities are based on comparisons of the prices of representative and comparable goods or services recorded in the national currency of the country in question on a specific date. As a result financial aggregates can be expressed in Purchasing Power Standards—PPS—rather than euro based on exchange rates. Source: http://epp.eurostat.ec.eu.int/cache/ITY_OFFPUB/KS-NS-05-002/EN/KS-NS-05-002-EN.PDF (23 January 2007).

² The Norwegian data are an average derived from 1997–1999, 1999–2001 and 2001–2003, as data are only available for every second year.

³ This total is comprised of the figures for other sources plus figure for total government expenditure (313.03 millions of PPS constant 1995 prices), as a breakdown of government direct and indirect funding was not available.

⁴ This total is comprised of the figures for other sources plus figure for total government expenditure (365.46 millions of PPS constant 1995 prices), as a breakdown of government direct and indirect funding was not available.

⁵ This total is comprised of the figures for other sources plus figure for total government expenditure (378.7 millions of PPS constant 1995 prices), as a breakdown of government direct and indirect funding was not available.

Table 9 shows that the Irish share of HSS HERD as a percentage of GNI has increased from 0.08 in 2000 to 0.10 in 2004.¹⁹ Nevertheless, Ireland continues to lag behind Finland (0.20) and Norway (0.15 in 2003) in the share of total HERD allocated to the HSS.

Table 9—Humanities and social sciences HERD as a percentage of GNI, 2000–2004 (current prices)

	2000 %	2001 %	2002 %	2003 %	2004 %
Ireland	0.08	0.08	0.09	0.08	0.10
Finland	0.16	0.16	0.17	0.19	0.20
Norway	n/a	0.14	n/a	0.15	¹
Portugal	0.09	0.10	0.09	0.10	¹
Slovenia	0.05	0.05	0.05	0.03	0.03

Source: Eurostat.

Note:

¹ Data for 2004 are not available for Norway and Portugal.

Table 10 illustrates sources of HERD expenditure and the percentage spend of total HERD on HSS in Ireland, Finland, Norway, Portugal and Slovenia between 1998 and 2004. It shows that the HSS in Ireland continue to receive a lower percentage share of total HERD in comparison to the allocations made by Finland, Norway and Portugal.

Table 11 illustrates HERD expenditure on HSS relative to other fields of science. Only Ireland and Slovenia have seen the HSS percentage share of total HERD fall between 2000 and 2004.

¹⁹ EU averages are not computed due to difficulties arising from incomplete data but again, Table 9 shows that the Nordic countries are significant investors under this measure.

Table 10—Sources of HSS HERD as a percentage of total HERD by country, 1998–2004*

	Ireland %	Finland %	Norway %	Portugal %	Slovenia %	Year
Direct government	2.00	7.16	5.90	n/a	14.55	1998
	2.00	7.81	6.09	n/a	14.88	2000
	3.00	8.32	6.85	n/a	n/a	2002
	4.00	n/a	n/a	n/a	n/a	2004
EU	2.00	n/a	n/a	n/a	n/a	1998
	2.00	n/a	n/a	n/a	n/a	2000
	1.00	n/a	n/a	n/a	n/a	2002
	1.00	n/a	n/a	n/a	n/a	2004
Foreign sources	0.00	0.96	0.54	n/a	1.29	1998
	0.00	1.19	0.54	n/a	1.16	2000
	0.00	1.33	0.54	n/a	n/a	2002
	1.00	n/a	n/a	n/a	n/a	2004
Local business	1.00	0.63	0.88	n/a	0.66	1998
	1.00	0.76	0.96	n/a	0.69	2000
	1.00	0.87	1.36	n/a	n/a	2002
	0.00	n/a	n/a	n/a	n/a	2004
Other & own	2.00	0.77	1.26	n/a	0.81	1998
	5.00	0.69	1.44	n/a	0.18	2000
	4.00	1.04	1.85	n/a	n/a	2002
	2.00	n/a	n/a	n/a	n/a	2004
Indirect government	21.00	17.58	21.97	n/a	2.06	1998
	19.00	15.61	22.44	n/a	3.71	2000
	20.00	15.50	25.08	n/a	n/a	2002
	17.00	n/a	n/a	n/a	n/a	2004
Total	28.00	27.10	30.55	30.95 ¹	19.37	1998
	29.00	26.06	31.47	31.93 ²	20.62	2000
	29.00	27.06	35.68	32.58 ³	21.22 ⁴	2002
	25.00	n/a	n/a	n/a	16.65 ⁵	2004

Source: OECD R&D database, accessed January 2006; conversion indices provided by Eurostat; Irish data supplied by Forfás.

Notes:

* These data are less complete than for HERD overall as some countries did not report these breakdowns to the OECD.

¹ Breakdown of HSS HERD is not available. Total HSS HERD for Portugal in 1998 taken from OECD R&D database, accessed January 2006.

² Breakdown of HSS HERD is not available. Total HSS HERD for Portugal in 2000 taken from OECD R&D database, accessed January 2006.

³ This percentage is derived from Eurostat figures for total Portuguese HSS HERD.

⁴ Annual breakdown not available for Slovenia. Eurostat figures give a HSS HERD percentage share of total HERD of 21.22 per cent in 2002.

⁵ Annual breakdown not available for Slovenia. Eurostat figures give a HSS HERD percentage share of total HERD of 16.65 in 2004.

Table 11 —HERD expenditure on humanities and social sciences as a percentage of HERD in all fields of science, 2000–2004 (constant 1995 prices)*

	2000 %	2001 %	2002 %	2003 %	2004 %
Ireland	28.98	28.9	28.95	24.58	24.55
Finland	29.50	30.33	31.60	32.28	33.72
Norway	-	44.16	-	43.08	-
Portugal	36.72	37.36	39.16	37.57	-
Slovenia	23.02	23.08	24.57	18.26	20.14

Source: Eurostat. Date of extraction: 14 July 2006.

Note:

* Prices are based on purchasing parity exchange rates; this is the exchange rate calculated to yield Purchasing Power Parity and is used to make comparisons of real values (wages, GDP) across countries with different currencies. Absolute Purchasing Power Parity is the equality of the prices of a bundle of goods in two countries when valued at the prevailing exchange rate.

5.3 OBSERVATIONS

Continued strategic investment in the HSS research community is vital to ensure a high-quality teaching and learning experience in conjunction with the pursuit of an ambitious research agenda. At the EU level, HERD expenditure on HSS research has not kept pace with expenditure on other fields of science and the Irish HSS HERD allocation remains low compared to the EU average (see Chart 6).

There are differences in the way in which HERD is sourced across the EU; the HSS in Ireland receive a lower share of direct government HERD in comparison to Finland and Norway in particular (see Chart 6). While the percentage share of Irish HSS HERD drawn from indirect government sources has remained constant (see Table 3), the actual amount of expenditure from this source is considerably lower than in Finland and Norway, countries against which Ireland often benchmarks itself as a knowledge economy.

In Ireland, the HERD allocation to the HSS has fallen compared to other fields of science (see Chart 1). However, the recent increase in funding from direct government sources for Irish HSS HERD is welcome. This increase primarily occurred after 2000, signalling the positive impact of the establishment of the IRCHSS and PRTL funding streams on HSS research funding.

In terms of direct government support, IRCHSS emerges as the largest single funder of HSS HERD *recurrent* expenditure (see Chart 4). However, the PRTL, which funds capital *and* recurrent expenditure, is clearly the largest overall source of funding for HSS research. This dual approach to supporting capital and recurrent HSS research expenditure is vital to ensure that investment in human resources is supported by the necessary capital research infrastructures.

Given the importance of the PRTL investment it is vital that the HSS continue to feature strongly in future PRTL cycles and that higher-education institutions continue to ensure the prominence of HSS research within institutional strategic research programmes. Similarly, IRCHSS research funding is very important. The success of these schemes to date points to the decisive impact of responsive funding across the HSS. In line with best practice, consideration should be given to the allocation of a multi-annual budget for research-funding agencies such as the IRCHSS and the RIA to allow a substantial increase in targeted investment in HSS research.

As neither the IRCHSS nor the RIA nor any other research-funding agency actually funds capital infrastructure it is essential that initiatives such as the PRTL should continue to fund the development of general HSS research infrastructures. The HSS typically have more general research infrastructure needs but, as demonstrated in Chapter 7, now require significant levels of investment to support participation in European research networks, to upgrade basic research facilities, to facilitate the sharing of data, and to ensure easy access to data sources. At the same time, the sustainability of the HSS higher-education research community can be questioned given the growing number of researchers occupying short-term posts (see Chart 5).

Efforts to support and increase the share of total HSS HERD must also address the decline in the HSS percentage share of research funding from business and EU sources (see Table 3). The considerable opportunity cost to researchers of developing EU funding submissions should be recognised through the provision of appropriate research and administrative supports within the higher-education institutions.

The DETE and its agencies clearly have a major role to play also and their efforts to engage actively with HSS researchers and encourage them in the development and presentation of proposals to EU instruments is particularly welcome. Similarly, efforts to promote the relationship between enterprise and education must be strengthened in order to address the noted decline in HSS research funding drawn from business sources. However, this should not be to the detriment of research projects where partners in industry cannot be found or where industry–academia partnerships would not be appropriate.

Given that sustained and substantial national investment in HSS capital and human capital infrastructures is essential for Irish researchers to effectively exploit research and funding opportunities effectively at the EU level, those who inform and manage HSS policy should:

- Monitor carefully the HSS percentage share of total HERD and ensure that expenditure in HSS HERD does not continue to lag behind the EU-15 average.
- Observe carefully the HSS HERD percentage allocation from indirect government sources so that changes in allocation mechanisms do not inadvertently damage the funding of the HSS.
- Promote responsive funding instruments and strategically targeted initiatives to fund HSS capital and recurrent research expenditure.
- Encourage and support participation in EU FP initiatives and other research structures.

It is important to identify clearly and fully the true costs of HSS research and to ensure that HERD sources recognise and meet these costs. A significant issue is the non-payment of institutional overheads by HSS funders. Consideration should be given to the development of a common and agreed protocol across all research-funding agencies and bodies for the payment of institutional overheads for research.



6. Research infrastructures for the HSS

Research cannot flourish without appropriate infrastructures. The adequacy or otherwise of such supports is a significant factor in determining both the quality and output of research and consequently, the attractiveness of Ireland as a research location.

While there has been significant investment in R&D infrastructure in recent years, ongoing investment in general and specific infrastructures is vital to overcome the historic deficit in HSS funding and to enable the HSS to make their full contribution to the cultural, intellectual, social and economic life of Ireland.

For the purposes of this report, research infrastructures (RI), simply defined, include facilities, resources, equipment or services that are needed by the research community to conduct research in any field of science, including the HSS, and the associated human resources and Information and Communications Technology (ICT). Research infrastructures may also be 'single-sited' (single resource at a single location), 'distributed' (network of distributed resources), or 'virtual' (electronic service provision).²⁰

While much of the recent discussion on RI has focused on tools and facilities associated with ICT, such as video conferencing and video streaming, digital text and data archives, and searchable electronic resources, it is also vital, if we wish to underpin research in a meaningful way, to emphasise the continuing and vital importance of more traditional 'real-world infrastructures' such as libraries, museums and archives, which can serve as inspirational and creative learning spaces as well as depositories of vital primary materials for HSS research.

6.1 KNOWLEDGE-BASED RESOURCES

No less than any other field of science, empirical research in the HSS draws on a wide range of data from both historic (libraries, museums and archives) and the emerging electronic data infrastructures. The non-digital archive remains an indispensable resource across the HSS and is of particular importance to those engaged in work and research that deals with manuscripts, archival and museum collections. Archaeologists and those who exist within the umbrella of cultural heritage illustrate

²⁰ European Strategy Forum on Research Infrastructures (2006), available online at: <http://cordis.europa.eu/infrastructures/survey2.htm> (12 January 2006).

this point usefully—they engage with digital material as a means of accelerating and improving their access to the primary resource and disseminating knowledge about their research. However, ultimately they must have direct access to the primary material, be they artefacts, buildings or manuscripts.



A key resource issue for the HSS is the availability of, and access to, data sets, including the capacity to generate new data, as well as the importance of ensuring widespread availability of, and access to, previously gathered data. Data infrastructures operate increasingly at national and European level and looking to the future, the HSS research community must continue to recognise the significance and value of transnational data collection efforts and develop appropriate instruments to engage in such efforts.²¹ This raises significant issues regarding how best to ensure that data is adequately protected and analysed in ways that both acknowledge the domestic context and facilitate the upskilling of researchers in support of Ireland's involvement in EU data infrastructures. ICT advances have increased the capacity for undertaking in-depth secondary analysis. However, secondary data sources are also vital resources for HSS research. The Irish HSS community must further develop its capacity to engage with such data sources and ensure that access to new and emerging e-science tools is properly resourced.

Linguistic barriers are also relevant here. While most of Irish HSS research is written and published in English, Ireland's participation in multilingual research, publication and dissemination efforts must be resourced if it is to engage in transnational and EU research networks. This includes much research which is policy relevant and directed at a particular national audience and accordingly, written in the specific national language.

²¹ For example, national and EU official statistical systems can also be considered part of the existing infrastructure (European Commission SSHERA 2005a).

IRELAND'S PARTICIPATION IN THE EUROPEAN SOCIAL SURVEY

The European Social Survey (ESS) is an academically driven, biennial, international survey examining changing social attitudes, beliefs and values within Europe both over time and across twenty European societies. The ESS enables researchers to examine the distribution of people's social values, beliefs and norms and how these differ across nations as well as the direction in which they are evolving.

Each round of the ESS gathers information on common core areas of socio-demographic, socio-psychological and socio-economic interest while also including different 'rotating modules' devoted to substantive theoretical or social policy themes. The core questions enable monitoring of broad social change in key variables, while the rotating modules facilitate an in-depth focus on specific issues.

Participation of Ireland in the ESS involves not only the creation of a uniquely valuable and rigorous dataset for Irish and international researchers, but also ensures an Irish presence in the European data infrastructures and research networks generated by the project. Social surveys are at their richest in terms of research potential when they enable comparisons of different sets of respondents. Optimal comparability arises when responses between different national groupings are assessed with reference to each other, and across different time frames. Thus, for Irish HSS research, interested in the trajectory of social attitudes in Ireland (and ultimately Europe), Ireland's participation in successive rounds of the survey is vital, both for its own sake and to enrich the interpretation of data gathered in previous rounds. Data from the third round of the ESS will allow direct comparison over time with the responses to the core areas while also enabling cross-national contrasts on key social concerns. This cross-national comparability also makes Ireland's participation critical for the rest of participating countries.

The European Commission, the ESF and academic funding bodies in each participating country fund the project jointly—Ireland's participation is funded by IRCHSS.

Another associated issue is the absence of a national infrastructure to support data sharing on completed and ongoing research. The establishment of a national research register linked to a repository of published work will reduce the risk of duplication of research and enable the identification of research expertise. As such, it will also facilitate cross-institutional collaboration and the preparation of EU funding proposals.

6.2 E-INFRASTRUCTURES AND DIGITISATION

HSS researchers need access to a range of resources, many of which are already digitised and available on subscription. Within the university sector, IreI (the Irish Research eLibrary) has greatly enhanced access to e-resources for specific SET disciplines, especially biotechnology and ICT. In 2006 a comparable scheme commenced for university-based HSS researchers. HEAnet (Ireland's national education and research network) provides a high-quality telecommunications network and value-added Internet services to Irish researchers.²² With the basic transmission infrastructure in place, it is important that there is continued support for the development and delivery of quality applications to exploit this investment for the benefit of the HSS community.

However, we must make other Irish resources available in digital form including material which may not be commercially attractive to publishers but which is nonetheless essential to support new research and to make Irish HSS research findings more visible internationally. A recent survey by the Consortium of National and University Librarians (CONUL) indicated a modest level of digitisation activity in its third-level member institutions (CONUL 2006).²³ The working group's sub-committee on infrastructures conducted a survey of the infrastructure needs of the Irish HSS research community.²⁴ A broad consensus emerged regarding the need to prioritise investment in the digitisation of existing print resources and strengthening the capacity of 'hard' ICT infrastructures to support research. Such investment would:

- Open up research opportunities which are not possible in a print-only environment.
- Bring the richness and variety of resources on which HSS researchers draw to create new and unique multimedia projects.
- Make scholars location independent.
- Facilitate the dissemination of research output to a world audience in a manner and timescale not possible by traditional means.
- Promote collaborative research opportunities.

Priority areas identified included:

²² HEAnet is now based on a dark fibre infrastructure, over 2,500km in length and spanning the whole country. This is scalable technology, enabling upgrades and indeed, additional point-to-point circuits throughout the network. It is currently being extended so that the same levels of service will be available in institutions and research centres everywhere (information supplied on request by HEAnet).

²³ The CONUL (2006) survey indicated a modest level of digitisation activity, with some projects undertaken on a collaborative basis, either with other CONUL institutions or with third parties. The survey relates only to those digitisation projects that have taken place within libraries and does not capture information regarding digitisation projects undertaken in other areas of universities.

²⁴ Further information on the work of the Subcommittee on Infrastructures can be obtained by contacting the Academy (hss@ria.ie).

- Continuing investment in both the national research network and in network connectivity and bandwidth at national and regional levels;
- Ensuring that consistent technical standards are set to facilitate the collective sharing of research;
- Addressing issues of intellectual property rights and privacy policies.

Yet, at national level, there is no single comprehensive roadmap to create and maintain an infrastructure that will, without recourse to periodic and systematic intervention, support the long-term preservation of and access to digital materials beyond the lifetime of the research project or organisation that created the electronic resource. This is regrettable, especially in view of the work of ESFRI over the past two years and the opportunities offered under the Seventh Framework Programme (FP7) in this area.

The lack of leadership for the Irish digitisation programme has emerged as a significant issue in researching this report. This is compounded by the fact that no single department or agency is charged with responsibility for the overall digitisation agenda or for coordination of the digitisation projects occurring presently in a range of sectors.²⁵ Moreover, few national agencies provide substantial funding for HSS digitisation projects. Although the IRCHSS did include infrastructures as a fundable theme within its 2005 call, this was not continued in 2006. Consequently, important European and international initiatives, especially those which involve the



²⁵ Organisations involved in digitisation projects span a range of sectors with the majority of such funding provided by public-sector sources. Responsibility is spread across many departments, including the departments of An Taoiseach (the Information Society); Arts, Sport and Tourism (national cultural institutions and cultural policy); Education and Science (education at all levels, the HEA and by extension the higher-education sector); the Environment, Heritage and Local Government (the local library, archives and museums sector); and Communications, Marine and Natural Resources (broadband provision as well as the technological aspects of communications policy).

collaboration of the Irish HSS research community with international networks, do not have either a secure or predictable source of domestic funding from module to module. This policy absence contrasts sharply with other European countries that typically have a defined policy on digitisation for higher-education research.

6.3 TECHNICAL AND ADMINISTRATIVE SUPPORT

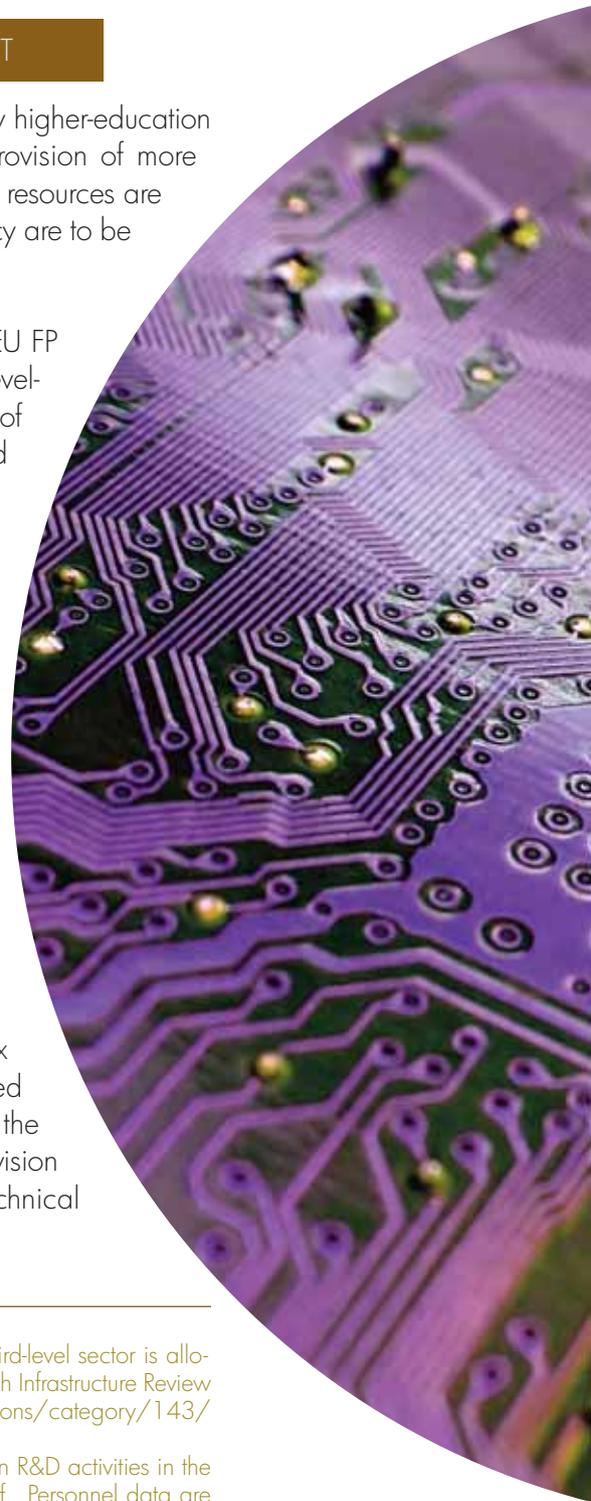
Basic research facilities would appear to be at a premium in many higher-education institutions. Particular needs were identified in regard to the provision of more research and office space, computer and other IT access.²⁶ These resources are necessary if the more general and holistic aspirations of R&D policy are to be realised.

This is especially important in view of the recent shift within the EU FP towards recognising the integrity of the HSS in informing the development of the European Research Area (ERA). The importance of providing appropriate supports, including administrative and management supports, to enable HSS researchers to access EU funding opportunities emerged as a strong need. There was strong support for the provision of funding to enable researchers to take 'time-out' from teaching and administrative duties to prepare major EU research proposals.

In 2004 there were 33 technicians and associated research support staff for the HSS disciplines compared to 349 for the SET disciplines (Forfás 2005a).²⁷ The limited provision for HSS technical and research support within existing national strategic frameworks emerged as a clear weakness. While the SSTI (2006) allows for an additional 350 technicians and 350 research assistants to support SET R&D over the lifetime of the strategy it fails to provide for any such supports for HSS research. Such supports are becoming more necessary to support participation in an increasingly methodological and technically complex transnational R&D environment. This oversight should be addressed and the equal importance of research and technical assistants to the general HSS community recognised through, for example, the provision of specific funding lines to enable the provision of targeted technical supports for the HSS higher-education research community.

²⁶ Less than nine per cent (or 21,408 m²) of total research space within the third-level sector is allocated to the arts, humanities, psychology and social sciences. See HEA 'Research Infrastructure Review Site Visits Briefing' accessed online at: www.hea.ie/index.cfm/page/publications/category/143/section/details/id/1107 (12 January 2007).

²⁷ The Forfás HERD survey provides data on the number of personnel involved in R&D activities in the higher-education sector including all associated support staff and technical staff. Personnel data are supplied for the survey as full-time equivalents by each field of science.

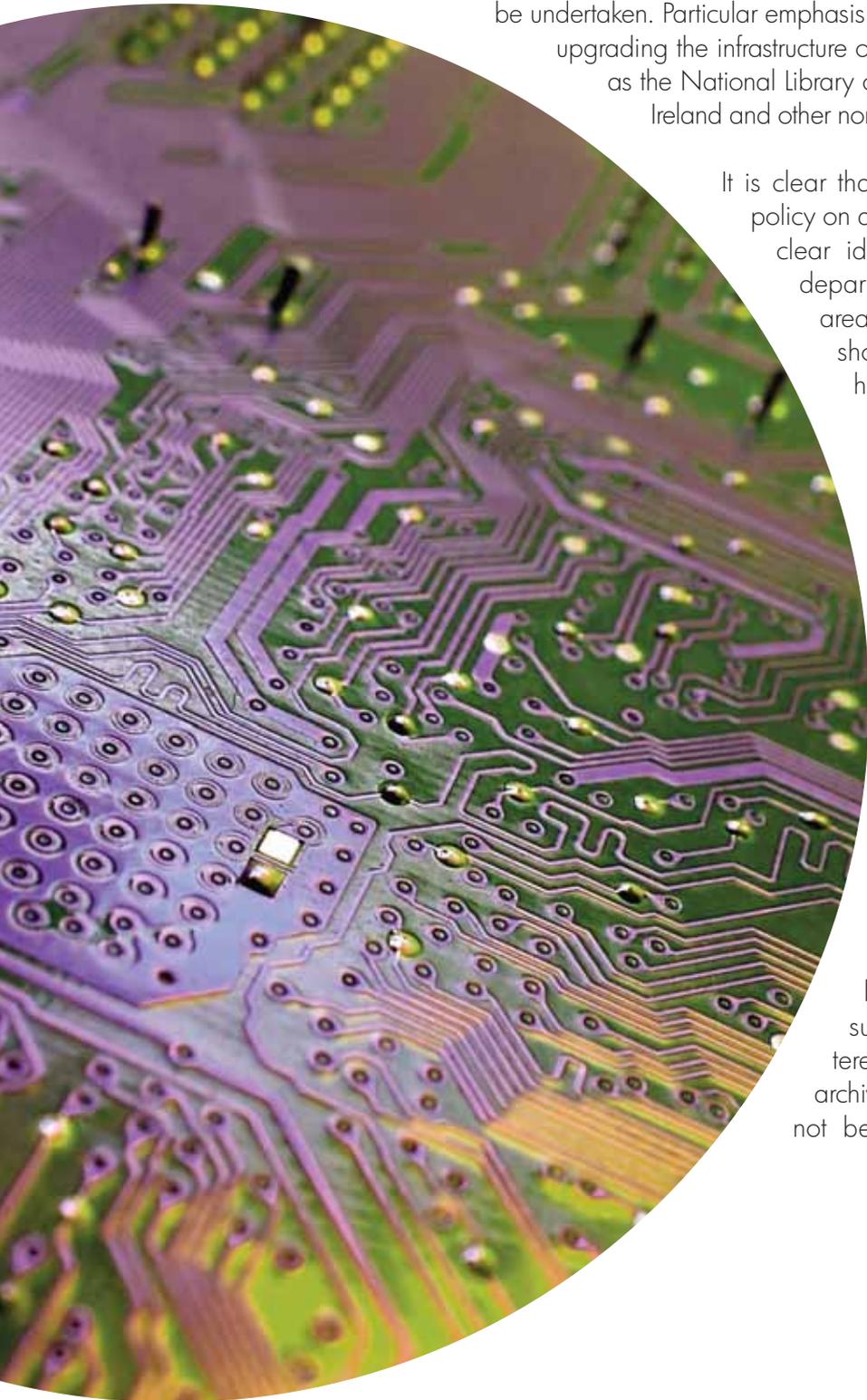


6.4 OBSERVATIONS

It is important to emphasise the value of resources such as libraries, archives and museums as physical, inspirational and creative learning spaces in the HSS. A full review of the needs of non-digital archival resources for HSS research should be undertaken. Particular emphasis should be given to supporting and upgrading the infrastructure of libraries and public archives such as the National Library of Ireland, the National Archives of Ireland and other non-digital national archival resources.

It is clear that Ireland needs a more coherent policy on digitisation and access, including a clear identification of which agency or department has responsibility for the area. At the very least, such an agency should have a coordinating 'digital hub' with an appropriate distributed expertise and strategy and a system, which might offer data storage for digitised and electronic material as well as set standards for the formats, metadata and quality of primary source material.

In any discussion of national/international digitisation projects, it is essential to recognise that no such project can justify digitisation of all potential material. Equally, many Irish researchers are engaged in research that is so specific as to have no material of significance located within Ireland and with the supporting primary material scattered over one or more institution, archive, museum or library where it may not be a priority for digitisation. The



importance, therefore, of providing an environment in which print/non-digital material can be preserved and consulted will continue in tandem with the urgency for increased access to, and availability of, digitised resources. The preservation of research resources is a welcome by-product of digitisation, but very often much of the source material for digitisation projects is in itself a unique and valuable asset. Such material also needs to be preserved.

Broadband high-capacity networks are essential to ensure speedy access to resources and to support collaborative research. The basic transmission infrastructure is already in place in Ireland. However, it is important that there is continued support for the development and delivery of quality applications to exploit this investment and to provide real benefits to the HSS community. The expansion of the Irel scheme to the HSS community within the university sector is welcome but it must be made more accessible to the broad community of researchers.

There is much to be done at national level in supporting the development and delivery of quality applications to exploit the basic infrastructure and especially to provide the requisite authorisation and authentication infrastructure (AAI). This will provide researchers with access to both appropriate resources and roaming access nationally and globally. Such AAI is already in place for the Grid community. However, the scope needs to be extended to the research community as a whole and integrated with AAI at international level if only to ensure that such automated tools will lead to the semiautomatic transfer of digitised resources into high-capacity storage facilities with associated quality control and validation. Also critical is the need to consider storage and preservation of digital data to ensure continued future accessibility, and the need to address complex issues surrounding the preservation of the integrity of artefacts and data represented and stored digitally.

With respect to the HSS community, there is also a need to heighten awareness of both existing digitised resources available to it and current national and international digitisation projects. A national programme of awareness building and training is desirable. This would support the maximum return from the investment in data developed institutionally and data accessed on a fee-paying basis. It is suggested that training/promotional tools should draw on existing national and international best practice.

The growth in transnational research collaboration has served to highlight existing weaknesses in the capacity of the domestic statistical infrastructure for long-range studies of Irish population, economy and society. It is suggested that this capacity should be further developed to enable Ireland to reap the maximum benefits for its

involvement in transnational, particularly EU-level research. This requires funding to support the development of methodological tools, approaches and the upskilling of the HSS research community to enable them to use these tools. A national seed fund to support HSS methodological studies and participation in transnational infrastructure initiatives should be established.



7 HSS research and the European Union

The significance of research is growing rapidly within the EU as evidenced through the commitments expressed within the Lisbon Agenda: the EU promotes R&D mainly through the work programmes of its multi-annual Framework Programmes (FPs). With FP7, the EU for the first time recognises the humanities explicitly and expands its commitment to the social sciences. The ERC will also dedicate substantial funding to research at the highest level (SSHERA 2005a). Other mechanisms for the promotion of HSS R&D include the European Strategy Forum on Research Infrastructures (ESFRI),²⁸ NORFACE, HERA and the ESF.

In seeking to respond to these trends, present and anticipated, Ireland is at a notable disadvantage relative to other European states, large and small. Countries such as the United Kingdom, France, Germany, the Netherlands and the Nordic countries, have all invested much more decisively in the HSS than we have done, and have a more highly developed infrastructure for research support at all levels. As a result, Ireland is at present less well-placed than these and other countries to participate in international research collaborations, access EU funding, retain its best graduates in the HSS, or attract graduates from other countries here as PhD students.

Barriers to the participation of Irish HSS researchers in EU and international research opportunities include:

- Inconsistencies in the level and type of support offered by the National Contact Point (NCP) for previous FPs—it was widely agreed that the NCP role should be more proactive in explaining commission documents and FP information as well as providing practical advice on costing and other technical issues to the HSS community;
- Low levels of awareness amongst the HSS community of supports offered by state agencies such as Enterprise Ireland and other NCPs;
- Perception that support and information offered by NCPs is primarily SET focused (IRCHSS 2005).

²⁸ ESFRI is charged with the development of roadmaps of infrastructure requirements across a range of fields of science, including the HSS. Its report was published in November 2006 (ESFRI 2006). Available online at: <http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/05/115&format=HTML&aged=0&language=EN&guiLanguage=en> (16 January 2007).

STRENGTHENING IRISH HSS RESEARCH BY PARTICIPATION IN EU PROGRAMMES

With the support of funding through the EU FP6 and FP5, a project is researching the issue of political and civic participation on a Europe-wide basis. The project, which began with nine partners and now numbers sixteen, has brought together some of the leading European and American researchers in this field, resulting in significant theoretical innovation. In terms of improved databases, the project has gathered large volumes of existing aggregate data and brought about the collection of newly designed individual-level data.

The project is leveraging the opportunities provided by cross-national comparison to identify the effects of system-level variables (historical traditions, institutional structure, economic conditions and political cleavages) on individual behaviour. This contributes to improvements in the quality of the research itself and substantial benefits in terms of the development of the research capacity of Irish researchers and the third-level sector overall.

7.1 HSS PARTICIPATION IN EU RESEARCH-FUNDING INSTRUMENTS

The FP includes a variety of instruments to support research and researchers' mobility but these instruments have not always been 'friendly' to the HSS. A report by the European Commission's Advisory Group on Social Sciences and Humanities in the European Research Area (2005b, 2005c) suggested that:

- The strategies of EU funding agencies were diverse and when taken with the absence of national research registers led to the risk of duplication and overlap in the funding of research.
- European research infrastructures were, relative to other areas, fragmented and poorly developed making it difficult to promote collaborative and comparative research.
- Access to data is often restricted.
- The organisation of 'big science' type research projects often reflects a lack of experience in such initiatives.²⁹

²⁹ Available online at: http://ec.europa.eu/research/social-sciences/society/article_3269_en.htm (16 January 2007).

A snapshot of the depth and breadth of Irish HSS research participation in key European research initiatives is provided below. Where possible, comparisons are again made with Finland, Norway, Portugal and Slovenia as in Section 5.2.

7.1.1 EU FRAMEWORK PROGRAMMES

EU FPs support the expansion of transnational research and the development of European multi-disciplinary research, and address scientific and technological challenges in strategic policy areas for Europe and its citizens.³⁰ Ireland's draw on FP funding has been relatively poor in recent years especially in the HSS. However, as the nature and activities of the FP were not particularly welcoming to the HSS, the figures presented in Table 12 should be read with caution.

Table 12—Ireland's participation in the EU FP4, FP5 and FP6

Programme	Priority	No. of HSS projects	€m	No. of Irish partners involved in FP projects	No. of FP projects with Ireland as coordinator
FP4, 1994–98	Targeted socio-economic research	162	112	24	3
FP5, 1998–2002	Improving the socio-economic knowledge base	185	155	5	2
FP6, 2002–2006	Citizens and knowledge in a knowledge-based society	144	270 ¹	18	2

Source: European Commission 1999, 2003a, 2003b, 2003c, 2006a.

Note:

¹ Two per cent of the total FP budget was allocated to this priority.

Human resources and mobility activities are an integral element of the EU FPs and are known as the Marie Curie actions (European Commission 2006b). Marie Curie instruments are largely based on the financing of training and mobility activities for researchers.³¹ As such, they emphasise mobility of researchers, transnational networking and sharing of expertise across countries. Approximately ten per cent (or €1,580m) of the FP6 budget was assigned to Marie Curie initiatives providing

³⁰ Available online at: ftp://ftp.cordis.lu/pub/era/docs/fp7_irish_final.doc (16 January 2007).

³¹ 'Marie Curie Actions: Overview', available online at: http://ec.europa.eu/research/fp6/mariecurie-actions/action/level_en.html (16 January 2007).

funding for Research Training Networks and Transfer of Knowledge initiatives as well as for individual and collective research training. The HSS are included under a number of headings, sometimes under the heading of economics and social sciences and sometimes under specific discipline headings such as 'cultural studies', 'literature' and 'philosophy'.

Europe's HSS researchers have engaged relatively little with Marie Curie instruments. A 2005 audit indicated that only five per cent of the total Marie Curie fellowships awarded in FP4 and FP5 went to the HSS (European Commission 2005a, 11). Irish institutions have coordinated 78 Marie Curie-funded projects of which 6 (7.7 per cent) are in economics and social sciences. The equivalent figure for all of Europe is 2,256 projects, with 145 projects (6.42 per cent) in economics and social sciences. A search among vacancies for researchers in August 2006 yielded 19 'hits', of which none are in the HSS. The equivalent figures for Europe are 458 with 74 (16 per cent) in HSS.³²

7.1.2 ERA-NET

The ERA-NET scheme was undertaken under FP6 to promote the cooperation and coordination of research and innovation programmes carried out at national or regional level and will be continued under FP7. For the HSS, the relevant ERA-NETs are HERA (for the humanities) and NORFACE (for the social sciences).

HERA—a partnership between fifteen humanities research councils across Europe and the ESF—was established to promote and support the humanities within ERA and FP instruments. It also seeks to establish best practice in funding mechanisms, research priorities, and humanities research infrastructure, and to develop a transnational funding programme. HERA was originally promoted by the European Network for Research Councils in the Humanities (ERCH), of which the IRCHSS was a founding partner, and is financed through FP6. To date, HERA activities have focused on the technical rather than the research aspects of the ERA-NET. These include peer review, for which the IRCHSS has been responsible, and on which a report has been completed. It is expected that a transnational programme will be announced in 2007.

NORFACE is a partnership between twelve research councils for the social sciences to increase cooperation in research and research policy in Europe. It also receives funding under FP and is supplemented by contributions from its constituent councils. Irish participation in the second call for seminars and programmes has increased (see Table 13).

³² Available online at: <http://cordis.europa.eu/mc-opportunities/index.cfm?fuseaction=dataForm.doSearch&typeSearch=PI> (16 January 2007). These figures are merely indicative of initial 'hits', and are not absolute, since there is considerable cross-listing in the vacancies section.

Table 13—Participation by Irish HSS researchers in NORFACE activities, 2005–2006

Activity	No. applications with Irish participation		No. successful applications with Irish participation		Totals	
	PI ¹	Co-Applicant	PI	Co-Applicant	Total No. applications	Total No. successful
Seminar series 2005	2	4	0	2	11	
Seminar series 2006	2	4	1	2	12	
Pilot research programme ²	5	7	2	5	63	26
Total	9	15	3	9	86	26

Source: Data supplied on request from NORFACE.

Notes:

¹ PI = Principal Investigator.

² The application and decision-making process for the most recent round of the NORFACE Pilot Research Programme is ongoing. Irish researchers were involved in five applications as the PI and in seven applications as a co-applicant. Sixty-three proposals were submitted in total and twenty-six of these were invited to submit a full proposal; two applications led by an Irish PI and five applications involving an Irish co-applicant were invited to submit a full proposal. Final funding decisions were expected in late 2006/early 2007.applications as the PI and in seven applications.

7.1.3 ESF INSTRUMENTS (2001–2005)

The ESF is the only major European agency where the humanities have their own committee, the Standing Committee for the Humanities (SCH).³³ As with the Standing Committee for the Social Sciences (SCSS), it seeks to bring added value to research funded nationally through European collaboration between ESF member organisations and their researchers. Both committees also play a central role in initiating and coordinating ESF scientific activities and provide expert advice on issues of science policy in this field.³⁴

Table 14 gives an overview of the level of participation of Ireland, Finland and Portugal in the principal ESF HSS instruments between 2001 and 2005. Finland was the most active of the three countries in terms of submissions and successes.

It should be added that Irish participation in the HSS activities of the ESF is directly informed by the ability of the national member to finance successful projects and, because of the incremental way in which the IRCHSS has developed its schemes, it has been possible only recently for Ireland to include the opportunities offered by the ESF within its budget.

³³ The ESF assists its member organisations by bringing scientists together in its Forward Looks, Exploratory Workshops, Programmes, Networks, EUROCORES and ESF Research Conferences to work on topics of common concern. It also conducts joint studies on issues of strategic importance in European science policy and manages grant schemes such as the European Young Investigator Awards (ESF 2005).

³⁴ Available online at: www.esf.org/esf_domain_home.php?section=2&language=0&domain=4 (16 January 2007).

Table 14—Summary of participation of Ireland, Finland and Portugal in ESF instruments in the HSS, 2001–2005¹

ESF instrument	Ireland	Finland	Portugal
	No. of participants	No. of participants	No. of participants
Exploratory Workshops in the humanities ²	0	2	0
Exploratory Workshops in the social sciences ²	1	1	0
EUROCORES CNCC ³	Not a signatory to the programme.	Yes, a signatory to the agreement	Yes, a signatory to the agreement
EUROCORES BOREAS ³	Not a signatory to the programme.	Yes, a signatory to the agreement	Not a signatory to the programme.
EUROCORES OMLL ³	Not a signatory to the programme.	Yes, a signatory to the agreement	Yes, a signatory to the agreement
European Collaborative Research Projects (ECRP) ⁴	1	4	0
EUROCORES ECRP 2005 ⁵	2 PL; 9 PI	1 PL; 8 PI	0
Forward Looks in the humanities	1	2	0
Forward Looks in the social sciences	1	2	0
Programmes in the humanities	2	3	0
Programmes in the social sciences	3	7	4
Networks in the humanities	0	1	0
Networks in the social sciences	2	2	2

Source: The group would like to thank Ms Reija Tuomala for her efforts in making these data available. Where possible, besides indicating the number of funded projects the analysis shows the number of applications and rejected projects. A key difficulty with these data is that the number of funded projects is rather low each year so there is little variation. To gain more meaningful insights a more in-depth study of all member countries, proportioned to the population, would be needed.

Notes:

¹ Slovenia was not eligible for EU funding during this period.

² Exploratory workshops enable researchers to explore an emerging and/or innovative field of research or research infrastructure at a European level. The numbers displayed in the table comprise only the main applicant, since other scientists that are mentioned in the applications are considered as participants of workshops.

³ EUROCORES (European Collaborative Research Schemes) provide a flexible framework allowing national basic research-funding organisations to support top-class European research in and across all scientific areas. Researchers' participation is dependent on their national funding agency agreeing to be the signatory to the EUROCORES agreement as the research funding remains with the participating national funding agencies.

⁴ The number of applicants refers to Project Leaders (PLs) and Principal Investigators (PIs).

⁵ The final funding decisions on the 2005 ECRP scheme will be made by mid February 2006. The number of Project Leaders (PLs) and Principal Investigators (PIs) refer to eligible applicants.

7.1.4 COST

COST is a Europe-wide network, comprising over 30 countries. It encourages cooperation between nationally funded basic-research activities from participating countries to address common research goals. COST is particularly advantageous to Irish research scientists in the access it provides to a large network of European researchers. The Office of Science and Technology provides funding for Irish membership of COST. Enterprise Ireland has responsibility for the coordination of Irish participation in COST actions and represents Ireland at the COST Committee of Senior Official meetings.

The social sciences have been a COST domain since 1989, the humanities were added in 2003 and related actions in these areas fall within the domain *Individuals, Societies, Cultures and Health* (ISCH). As of 2005, ISCH had supported 36 research networks ('actions'): Ireland has participated in 19 COST ISCH actions. Across the 17 domain areas, however, Ireland has participated in 262 COST actions, which means that the HSS account for just 7.25 per cent of Ireland's COST actions.³⁵



³⁵ See www.cost.esf.org (16 January 2007).

7.2 OBSERVATIONS

Given the increasing role of international collaboration as a crucial driver of research, Ireland's HSS researchers must engage more actively with international research opportunities. However, Ireland must provide the appropriate structural and financial resources to enable this.

As it is, Ireland is at a notable disadvantage relative to other EU member states. Countries such as Finland and Norway, to name but two, have invested more decisively in the HSS than Ireland (see Chapter 5, Table 8). Ireland is consequently less well-placed to participate in collaborative projects networks, foresight exercises, workshops and conferences, retain its best graduates in the HSS, or to attract and retain world-class researchers from other countries.

Although many informal links exist between Irish HSS researchers and their European colleagues, there is a strikingly low level of Irish participation in European research projects. Examining Ireland's participation levels in ESF instruments suggests that, although the small numbers involved require cautious interpretation of the data, on average, Ireland seems to perform less well than her comparator Nordic countries but somewhat better than Portugal.

Administration and management issues feature prominently in the discussions on participation in EU projects and networks. The common view is that the bureaucratic aspects of EU initiatives are more a hindrance than an encouragement. There is a strong view among Irish FP participants that Integrated Projects and Networks of Excellence require specialised management skills and that the allocations made for





management time and resources are not sufficient to cover all of the work that is usually involved in managing these large and complex networks.³⁶

There also appears to be a low level of awareness amongst the HSS research community regarding the support provided by National Contact Points and agencies with a European remit.

Recognising the international, and more specifically, the European dimensions of HSS research, each of the four countries which the group looked at most closely (Norway, Finland, Portugal and Slovenia) have sought to ensure the continued vitality of their national research cultures through international research cooperation, collaboration and participation in transnational research networks and schemes (see Appendix IV).

Portugal, Norway and Finland have sought to develop the critical mass of their HSS research communities by identifying specialised areas of expertise and channelling additional funding into these areas through mechanisms such as Centres of Excellence. Ireland has also pursued this practice by providing funding streams through the IRCHSS and PRTL I to support R&D in specific research priority areas

leading, for example, to the establishment of a number of PRTL I-funded interdisciplinary research centres. In Slovenia, the development of a strong research culture in the HSS is seen as the basis for economic competitiveness, social cohesion and regional security. Furthermore as a country with a small population base, it has targeted the HSS as an area which can generate significant returns in terms of international prestige and enhancing the internationalisation capacity of indigenous research.

³⁶ Available online at: ftp://ftp.cordis.lu/pub/era/docs/fp7_irish_final.doc (16 January 2007).

8 Doctoral studies and research careers in the HSS

There has been a shortage of analysis of postgraduate and postdoctoral research opportunities in Ireland in general. While recognising that a full analysis of postgraduate activity and prospects is needed, and would involve close attention to first postgraduate degree systems and their supports, the primary focus here is on HSS doctoral education and early research careers.

If Ireland's economy is to develop to meet the objectives expressed within the SSTI (2006), it will have to draw on a skills base of the highest quality and capacity. Increasing the capacity for postgraduate teaching and research within the higher-education sector is critical. A more coordinated approach is necessary to maximise HSS research potential and develop research careers in higher education as well as careers in non-academic areas where research skills are required.

8.1 GROWTH PATTERNS IN DOCTORAL STUDIES, 1999–2004

Since 2000 there has been a steady climb in annual PhD enrolments in HSS and SET disciplines. In 2005 there were 4,574 university-based doctoral students, of whom the majority were engaged in full-time studies (see Table 15).³⁷

The majority of HSS postgraduates are engaged in full-time studies and the percentage of part-time HSS doctoral students has declined since 2000. There has been an increase of 29 per cent in the number of HSS PhD awards from 1998 to 2003/2004.³⁸

The greatest increase in PhD enrolments has taken place in the HSS disciplines, where a growth of 92 per cent in enrolled doctoral students was recorded between 1999 and 2004. This represents a greater rate of increase than that proposed in the SSTI (2006), which commits to a doubling of PhD students between 2007 and 2013 (from a 2003 base level). These projections, if achieved, would lead to 2,312 new PhD awards to HSS and 6,546 awards to SET graduates (DETE 2006, 30). However, for the HSS, this would actually represent a decrease on current growth trends.

³⁷ All percentage increases expressed in the tables presented in this section of the discussion have been rounded to the nearest figure.

³⁸ Source: HEA yearly statistics available online at: www.heai.ie/uploads/excel/AwardsAllPGPhDField04.xls (16 January 2007).

Table 15—PhD enrolments: distribution between HSS and SET, with year on year percentage growth, 2000–2005

	1999/2000 ¹		2000/2001		2001/2002		2002/2003		2003/2004		2004/2005 ²	
	HSS	SET	HSS	SET	HSS	SET	HSS	SET	HSS	SET	HSS	SET
FT	661	1615	749	1644	865	1822	995	2178	1175	2487	1367	2631
PT	199	355	194.5	334.5	212	354	215.5	273.5	228	277	285	291
	860	1970	943.5	1978.5	1077	2176	1210.5	2451.5	1403	2764	1652	2922
Total	2830		2922		3253		3662		4167		4574	
% change	-	-	10%	0.4%	14%	10%	12%	13%	16%	13%	18%	6%

Source: HEA statistics for 1999–2004/2005 compiled from online data on full and part-time PhD enrolments available online at www.heai.ie/index.cfm/page/sub/id/710 (16 January 2007) and HEA (2006b).

Notes:

¹ 2000–2004 inclusive: nursing studies has been assigned to SET (although having HSS elements and being affiliated to arts faculties in some instances); communications and information studies have been assigned to HSS; computer and IT studies have been assigned to SET; education has been assigned to HSS, despite the science focus of some research; combined studies has been divided between HSS and SET; architecture has been assigned to SET.

² In 2005 the HEA presentation of statistics was re-aligned with the International Standard Classification of Education developed and used by the OECD and Eurostat to code students' fields of study, services have been assigned to HSS except for combined environmental protection; health and welfare have been assigned to SET, except for combined social services, child and youth counselling, social work and counselling (HEA 2006b).

8.2 FUNDING OPPORTUNITIES FOR HSS DOCTORAL STUDIES

The arrangements and structures supporting doctoral education in Ireland need to be placed on a more professional footing. The manner in which doctoral students are financed and funded is a central issue within this broader process. Of particular concern is the low level of scholarship funding and stipends available to HSS doctoral students in comparison to those in SET.

Table 16 illustrates the level of demand for the principal postgraduate-funding schemes, which are administered by IRCHSS and the Irish Research Council for Science, Engineering and Technology (IRCSET). Between 1998 and 2006 29 per cent of total applicants to the IRCHSS postgraduate scheme were successful compared to 22.5 per cent of applicants to IRCSET schemes. While a relatively higher percentage of IRCHSS applicants receive an award, the lower level of stipend compared to that available to IRCSET awardees offsets this.

The level of funding available to IRCHSS award holders is currently considerably less than that available to IRCSET award holders. IRCSET awards provide funding of €24,003 for each of the three years assigned for doctorate-level research (maximum amount for an individual stipend of €72,009) and one year for Masters-level research (IRCSET 2006). Of the €24,003 maximum stipend per annum, €16,002 goes directly to the student, with the remainder available to fund other forms of support such as fees, appropriate travel and other expenses. The IRCHSS scholarship is valued at a maximum of €12,700 per annum in maintenance, plus fees. Scholarships are awarded initially for one year, but may be renewed for up to two additional years, giving a maximum living stipend over three years of €38,100 (IRCHSS 2006/2007).

Table 16—IRCSET and IRCHSS postgraduate scholarship scheme: number of applications for scholarships and awards granted, 1998–2006

Year	IRCHSS		IRCSET ¹	
	No. applications	No. awards	No. applications	No. awards
1998–1999	380	47		
1999–2000	217	83		-
2000–2001	276	96		-
2001–2002	314	176		-
2002–2003	340	110	1222	218
2003–2004	359	77	790 ²	149
2004–2005	316	84	716 ²	157
2005–2006	359	94	725 ²	226
2006–2007 ³	93	9	552	152
Total	2654	776	4005	902
% Successful applicants to IRCHSS	29.24%			
% Successful applicants to IRCSET	22.5%			

Source: Figures supplied on request by IRCSET and IRCHSS.

Notes:

¹ The first IRCSET postgraduate awards were made in 2002.

² The IRCSET figures presented for 2003–2004, 2004–2005 and 2005–2006 reflect the overall totals for all applications received and awards made in the first and second annual call of each year.

³ The IRCSET figures for 2006–2007 refer only to the first call for applications to the scheme in 2006. The second and final call for applications was underway at the time of writing and no data could be provided in relation to the call.



SET postgraduates also have access to a wider variety of funding schemes including opportunities offered by the SFI, the HRB and the Environmental Protection Agency. Meanwhile, HSS disciplines have benefited significantly less than SET from other postgraduate-funding opportunities such as those provided by the PRTL. As of March 2004, the PRTL had funded 969 postgraduates of whom only 125 (or thirteen per cent) were from HSS disciplines (HEA 2004a, 23).

Little is known of the 1878 unsuccessful applicants to the IRCHSS postgraduate schemes. It is reasonable to assume that a considerable number of HSS postgraduates are engaged in employment to fund the costs of their doctoral studies, whether full- or part-time. Participation in non-academic employment carries clear opportunity costs for postgraduate students in terms of their ability to complete doctoral studies within a three-year timeframe, as well as their capacity to develop the necessary additional research outputs (such as publications) to support their future research careers.

Higher-education institutions should consider the establishment of a part-time fees structure in recognition of these constraints.

FOSTERING LINKAGES BETWEEN ACADEMIA AND THE PUBLIC/BUSINESS SECTOR: COMBAT POVERTY PhD FELLOWSHIP AWARD FOR POVERTY RESEARCH

The Combat Poverty PhD Fellowship Award for Poverty Research is an innovative example of the benefits that can accrue through partnerships between academia and the public sector. It seeks to match the needs of the doctoral student (funding to complete studies, access to advice and support from non-academic as well as academic sources) with the needs of the public sector (specific research to inform agency's activities, ensuring that initiatives are informed by high-quality research).

The Combat Poverty Award supports postgraduate research that is directly related to poverty and that might not normally be considered for funding by mainstream sources. Priority is given to proposals that relate to the research priority themes of Combat Poverty's strategic plan and to proposals that are of an applied nature, have a policy focus or contain a comparative dimension.

The fellowship is administered, and the student supervised, within the university/institution. Combat Poverty assesses applications using a panel of external experts as well as the expertise of in-house staff, and a relevant member of staff from Combat Poverty is identified for each fellow to provide ongoing advice and support over the fellowship period. Fellows are invited to base themselves within Combat Poverty for a period of four weeks during the fellowship period and to present an in-house seminar to Combat Poverty staff after the first year of their studies. This provides an opportunity to develop research ideas in consultation with relevant members of staff and to link in with particular aspects of Combat Poverty's work. Fellows also have access to Combat Poverty's library and are required to present their research at a research seminar, and to prepare a working paper for Combat Poverty's research working-paper series within six months of completing their doctorates.

8.3 RESEARCH TRAINING AND CAREERS

HSS graduate programmes should facilitate young researchers in the development of a skills base to support their participation in research careers in the public and private sectors. A strong argument exists for the inclusion of generic skills as an

integral element of HSS doctoral education including training in quantitative and qualitative research methodologies, lecturing experience and pedagogic training, publishing skills, and communication and project management skills. The support expressed for the development of graduate education programmes in strategic statements such as the SSTI (DETE 2006) and the SIF (HEA 2006c) are clearly intended to encourage higher-education institutions to address the provision of structured graduate education.

Table 17—Number of HSS PhD awards compared to HSS postdoctoral fellowship posts in the higher-education sector, 1998–2004¹

	HSS PhD awards	HSS postdoctoral fellowships
1998	132	8
2000	281 ²	31
2002	307 ²	22
2004	318 ²	146
Total	1038	207

Source: Statistics on awards compiled from online data on awards to PhD graduates of HEA institutions available online at: www.heai.ie/index.cfm/page/sub/id/702 (19 February 2007); also, HEA annual statistics and Forfás Survey of Research and Development in the Higher Education Sector, 2000, 2003, 2004, 2005.

Notes:

¹ Figures were not available for 2005 as of 19 February 2007.

² The figure for HSS PhD awards in 2000 include awards made in 1999, the 2002 figures include awards made in 2001, and the 2004 figures include awards made in 2003. Different classifications were used in reports from 1998 to 2003 with social sciences, business, commerce and law tallied separately (with a separate category of business, economics and social studies for TCD). These separate categories are combined for the purposes of this table.

Postdoctoral fellowships are typically the first step to an academic career. There has been a substantial increase in such fellowships within the HSS from 8 in 1998 to 146 in 2004. This increase is largely attributable to funding opportunities generated by IRCHSS and the PRTLII measures to support postdoctoral researchers (funding 197 and 64 fellowships respectively as of 2005).³⁹ Despite this, a significant gap remains between the number of PhD graduates and postdoctoral fellowships available per annum (see Table 17). The fact that Ireland, unlike some other European countries, has not chosen to develop national research teams, such as those developed under the aegis of the Centre National de la Recherche Scientifique in France, is another limitation on the number of research posts available.

³⁹ In 2000 IRCHSS inaugurated a scheme to support postdoctoral scholars in the HSS. The award is valued at €31,745 per annum for the academic year 2006–2007, and may be held, subject to stated terms and conditions, for up to two years. IRCSET offers a similar postdoctoral scheme with 176 awards since 2002/03. IRCSET's postdoctoral awards are valued at a maximum of €33,000 per annum (although this is under review as of July 2006) with an additional contribution to laboratory costs and travel to a maximum of €5,000 per annum.

While the SSTI acknowledges that a proportion of the proposed increase in HSS PhD graduates will have to be incorporated into tenured posts within the higher-education sector, it does not make any specific proposals as to how this will be supported.

It is probable that the present trend, which sees the majority of PhD graduates following non-academic career paths at least initially, will continue into the future. Approximately 50 per cent of Irish PhD graduates across all disciplines move directly out of academia upon completion of their studies (IUA 2004). This echoes trends in the United States of America and the wider EU whereby doctoral-level training has become the norm for participation in key areas of private and public sector employment.

The importance of developing an agreed career structure for researchers within the higher-education sector and in research organisations (public and private) is well-recognised. Such a structure would consider specific issues such as remuneration, pensions and other entitlements, as well as contract conditions.⁴⁰ The European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (European Commission 2005b) seeks to increase the attractiveness of research careers and marks a first step in the process of developing a recognised career structure for researchers.⁴¹

8.4 MOBILITY ISSUES

Mobility is key to the advancement of research careers. Participation in research networks, conferences and research programmes promotes Irish HSS research and increases its attractiveness to international researchers. The availability of international exchange awards and travel bursaries is essential to encourage greater mobility and the internationalisation of HSS research.

At present there are a limited number of domestic funding opportunities for HSS mobility and exchange programmes.⁴² In particular, early career researchers and postgraduates have limited opportunities to access funding to enable participation in international networks or conferences. For example, IRCHSS postgraduate awards do not offer financial support for participation in international networking opportunities or international travel.

⁴⁰ See also the discussion in Downey (2003) and the 2004 proceedings of an IUA conference on research careers.

⁴¹ The Charter recommendations aim to provide equal rights and obligations for individual researchers throughout Europe by specifying the roles, responsibilities and entitlements of researchers, as well as those of funders and/or employers of researchers. The guidelines of the Charter and Code address all European research organisations and universities, both public and private, and are to be implemented on a voluntary basis. The IUA is the Irish signatory to the Charter.

⁴² For example, the RIA receives considerable interest in the range of international exchange schemes it administers.

A GATEWAY TO INTERNATIONAL RESEARCH NETWORKS: MOBILITY GRANTS IN THE HSS

The RIA administers a number of international exchange schemes. One such scheme is organised jointly with the British Academy to enable HSS scholars to visit universities and research institutes in Great Britain. The scheme is open to all scholars of postdoctoral or equivalent level. Independent researchers and those based in museums, galleries, libraries and similar organisations may apply, as well as scholars in any third-level institution in Ireland, including Northern Ireland.

Grants may be used for the direct costs of research, research assistance, travel and maintenance. Such schemes are very valuable and in many cases have enabled researchers to leverage significant additional funding and build international collaborations, which last well beyond the initial grant.

The exchange allowed me time to spend time developing working relationships with colleagues in my specific field in the UK, while also allowing me to gain new research skills in areas still developing in Ireland ... I feel that I have gained considerably from the experience.

(Participant A)

The visit has led to significant opportunities to develop my research interests in this area through further invitations to speak and participate at invited workshops and conferences internationally ... I now have the contacts and the expertise to seek funding for further research.

(Participant B)

Furthermore, Irish HSS postgraduate training typically has a limited international dimension. Higher-education institutions should consider implementing structures such as the *co-tutelle* and the *label européen*. The *co-tutelle* is a system whereby directors from two universities, normally in different countries, supervise a postgraduate thesis and the degree is formally recognised in each country. This is a particularly suitable route for multidisciplinary and comparative research and would encourage overseas postgraduates to study in Ireland in the knowledge that their degree would have formal recognition in their country of origin. For a thesis to be awarded a *label*

européen, the material covered must involve substantial research in two countries, normally of different languages, the viva must be conducted in more than one language, and the viva examiners must be drawn from more than one country.

8.5 OBSERVATIONS

In international terms, participation in HSS doctoral studies in Ireland is developing from a low base. There is a clear capacity for growth and the significant increase in HSS PhD enrolments since 2000 is therefore encouraging.

The commitment expressed in the SSTI to increase the number of HSS PhD awards is welcome, but it must first be discussed against the present low outputs. When distributed across the various HSS disciplines the SSTI projections of 2,499 HSS doctoral awards represent a relatively modest increase in PhD graduates per discipline per annum, over the SSTI time-span, and across all higher-education institutions.⁴³ Indeed this prediction, in comparison with the current level of growth, would mean a slowing down of the growth in the sector. In any case it is unlikely that the aspirations expressed by the SSTI could be fulfilled with such a low level of increase.

Additional short-term targets should be set to increase the number of doctoral students in HSS disciplines which historically have low rates of research post-graduates such as business studies or law, but which are nonetheless important to strategic long-term development.

The actual number of HSS doctoral students is low compared to the numbers of undergraduates engaging in HSS primary degrees. While recognising that many first-class graduates are not drawn to research and are needed for other roles in society, we need to study why relatively few choose to progress to doctoral studies.⁴⁴ Higher-education institutions should consider how best to strengthen links between doctoral and undergraduate studies in the HSS as this is a key mechanism to increase the numbers participating in doctoral programmes.

There is little discussion in the SSTI as to how it proposes to fund the projected increase in HSS doctoral students. The limited funding currently available to HSS postgraduates may act as a disincentive to progression to doctoral studies.

The success of the IRCHSS scholarship scheme points to the decisive impact that responsive funding has had in increasing PhD enrolments. But even here HSS post

⁴³ Based on an estimate of twenty broad disciplines within the HSS, as per the proposed OECD Standard Practice for Surveys on Research and Experimental Development, OECD (Frascati Manual 1993, 2002, as cited in Forfás 2003, 29).

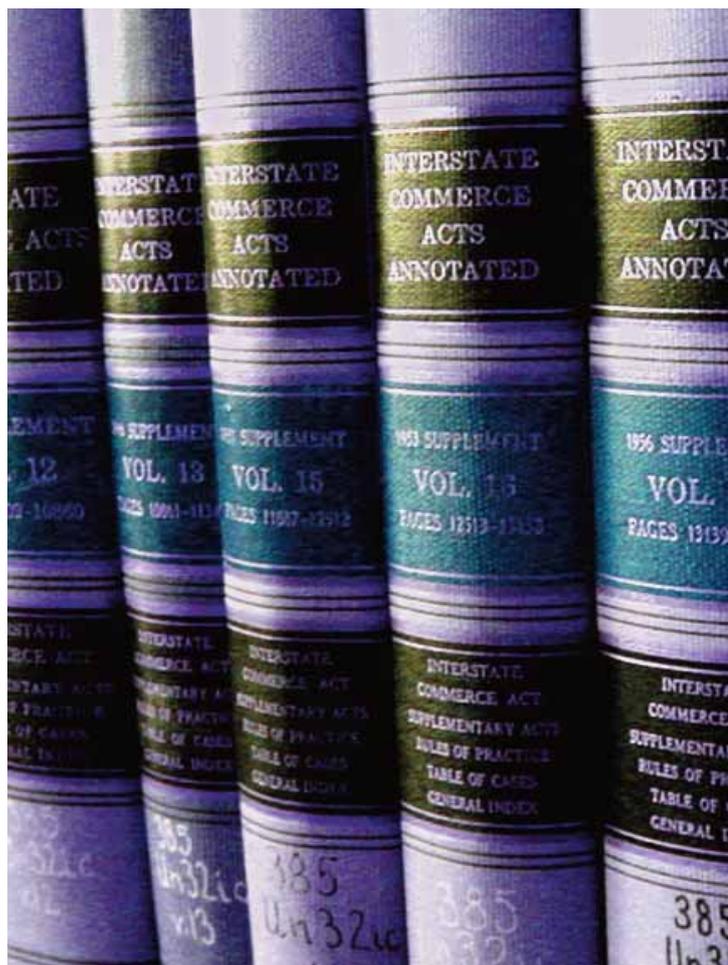
⁴⁴ Anecdotal evidence suggests that key factors contributing to this include: the shortage of available fellowships/scholarships; the relatively low number of research teams; the scarcity of postdoctoral fellowships and research positions available after completion of the doctorate and shortage of academic posts; and, the lack of structured training programmes and institutional support for HSS postgraduates.

graduates are at a disadvantage when compared to those in receipt of IRCSET awards.⁴⁵ The group supports previous proposals by IRCHSS and the IUA for a commonality of postgraduate studentship funding across national funding agencies, including agreement on a national standard for studentships.⁴⁶ Higher-education institutions should also consider the establishment of a part-time fees structure, in recognition of these constraints.

The negative impact of socio-economic factors in determining undergraduate participation in third-level education is well-documented. Issues of equity of access and participation may also arise in relation to participation in doctoral studies. The HEA (2006d) has expressed its intention to undertake further analysis of the equity aspects of third-level access and it is hoped that this can be broadened to include an analysis of access to postgraduate degrees.

It is vital that national science policy considers the issue of research careers clearly: the vision to increase the number of PhD graduates must be matched with a vision for research careers if the national R&D strategy is to be successful. Organisations such as the HEA and the research councils should play a central role in bringing together key stakeholders to set out a career structure for researchers with reference to remuneration, pension and other entitlements, as well as contract conditions.⁴⁷ Funding agencies should also explore the provision of 'bridging funding' to support the transition from PhD training to postdoctoral fellow employment within higher-education institutions.

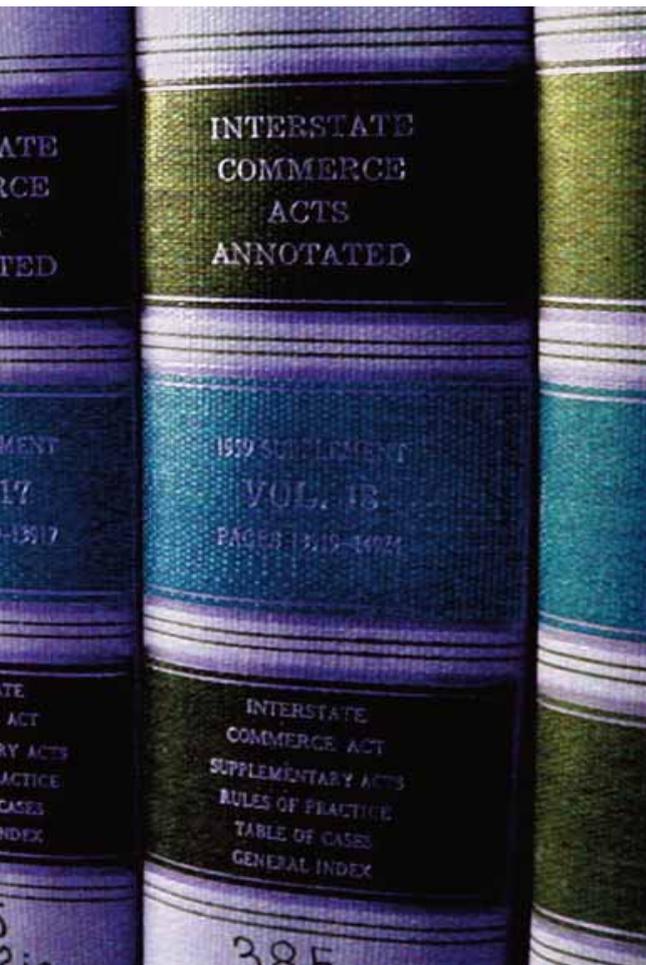
Enhanced doctoral training would generate a cadre of multi-skilled, adaptable humanities and social-science researchers ideally equipped to participate in knowledge and technology transfer. Higher-education institutions must promote the contribution of the HSS to enterprise and innovation. The HSS community itself should draw on learning from the experiences of the natural and life sciences in developing industry-academia partnerships in research, teaching and learning.



⁴⁵ The current IRCSET living stipend has increased twice within 12 months: from €12,700 in 2005 to €14,351 in January 2006, and to €16,002 in October 2006. This increase of 26 per cent would not have been introduced unless warranted, and the same logic should, it is suggested, apply to HSS postgraduates, whose living and research-related expenses are broadly comparable.

⁴⁶ The IRCHSS is currently in discussion with the HEA to raise the living stipend for IRCHSS postgraduate awards to €16,000 and increase the eligibility threshold for higher-education grants (HEG) to the same amount. If granted, this would increase the living stipend to €16,000 for all postgraduates in receipt of scholarships and to €19,300 for those award holders in receipt of additional HEG. 2002/2003 data show 24,180 students in receipt of HEGs and 9,987 receiving 'top-up' grants (out of a total of 77,287 full-time HE enrolments inclusive of undergraduates and postgraduates) (HEA 2004b, 27; 2006b, 6).

⁴⁷ See also HEA and Forfás (2003).



Participation in European and international networks and research is vital to raise the profile of the Irish HSS community and attract world-class researchers to Ireland. There are very limited domestic funding opportunities for HSS human resource mobility activities and this should be addressed through enhanced investment in international travel schemes and exchanges such as those offered by the RIA.

In conclusion, the group's work was hampered frequently by the absence of a coherent database or centralised information source on the HSS with, for example, little collated information available on participation in HSS postgraduate and postdoctoral studies and research. Responsibility for data collection in these areas is assigned across the individual higher-education institutions and various state agencies including the HEA and Forfás. The group supports the development of a coherent data strategy to assist in the preparation of a strategic training and career framework for HSS postgraduate and postdoctoral researchers. Such a strategy requires the establishment of a centralised database containing information on the numbers enrolled in PhD studies, awards granted, postdoctoral positions available/occupied, and a register of PhD research. This database should be integrated into the general register of HSS research previously suggested in section 5.6.

9 Recommendations

- 1 Undertake a **Foresight Exercise** for the humanities and social sciences (HSS) with a brief to provide an objective assessment of the role of the HSS in interacting with current research and strategic policies, map past and present research, identify research priority areas and research funding, supports and services to drive humanities and social sciences research in Ireland.
- 2 Develop a **national register of research** and a **repository for published research papers** and **address the lack of major data repositories** for HSS research.
- 3 **Increase the HSS percentage share of Higher Education Expenditure on Research and Development (HERD)** drawn from industry and other sources by exploring the possibilities of developing knowledge partnerships between academia and the public, private and business sectors.
- 4 Provide **targeted funding** through the Programme for Research in Third Level Institutions (PRTLII), the Irish Research Council for the Humanities and Social Sciences (IRCHSS) and other appropriate agencies such as the Royal Irish Academy (RIA) for initiatives to explore strategic research priority areas in the HSS.
- 5 **Develop the resource base** of the IRCHSS and other bodies which administer HSS research funding to enable a responsive and comprehensive engagement with the needs of all levels of HSS researchers.
- 6 Commission a **review of the needs of non-digital archival resources** for the HSS with a particular emphasis on supporting and upgrading the infrastructure of libraries, museums and public archives. This review might also comment on awareness of, and capacity to use, research support resources (both digital and non-digital) at individual and inter-institutional level across the HSS community.
- 7 **Establish a Digitisation Stakeholders Forum** to provide a direct mechanism for the input of all relevant stakeholders in the development and implementation of a national digitisation policy. Such a forum might inform the establishment of a **national policy on digitisation** for the HSS, which should also make proposals for curation and preservation, ensuring that data remains readable and renderable for current

and future technical systems, and that common standards and formats are adopted in line with international best-practise and support continued **investment in the research network infrastructure**.

- 8 Provide **increased technical support and research assistance** for HSS research. In particular, such an initiative should support the participation of HSS researchers in transnational opportunities and assist scholars in the preparation of funding submissions to European Union (EU) and international funding instruments, and where necessary to provide short-term teaching replacement for academic staff to enable their participation.
- 9 Commission a **review of postgraduate training** across HSS disciplines to include a review of the research activity, conditions and prospects of HSS postgraduates, arrangements for the promotion of *co-tutelle* supervision, the introduction of the *label européen* to Irish higher-education institutions, and a review of the projected rates of increase in HSS postdoctoral numbers having regard to current growth rates and necessary supports.
- 10 Establish a **part-time fee structure** across higher-level institutions to encourage and promote greater numbers of HSS PhD enrolments and allow HSS postgraduates greater flexibility in managing their research.
- 11 Develop an improved **career structure** for researchers in the HSS by means of an agreed national career structure for academic researchers.
- 12 Promote **wider recognition of the transferable skills** of HSS graduates as part of the development of career pathways for researchers in the public and private sector.
- 13 Develop domestic opportunities further to access **international mobility funding** to support participation in international networking opportunities, travel grants, international exchanges and to promote international networks. Such schemes should provide a 'mix' of supports for early career researchers and principal investigators.
- 14 Enable the Department of Enterprise, Trade and Employment, both in its own right and through its system of **National Contact Points**, to engage more actively with HSS researchers to better facilitate HSS researchers in the development and presentation of proposals to EU instruments.
- 15 Establish **an agency presence at the European Commission** to assist and inform Irish HSS researchers in regard to research opportunities within the EU.

- 16 Provide incentives to encourage the HSS **participation in transnational collaborative research** through:
- Provision of dedicated administrative support for the preparation of EU funding proposals
 - Ongoing management support for those participating in EU research networks
 - Encouragement of Irish HSS experts to assume management and evaluation roles in EU projects
 - Inclusion of senior staff with HSS expertise within higher-education research offices.
- 17 Ensure adequate **representation** of HSS researchers, including postgraduate and postdoctoral fellows, on boards and committees developing and overseeing the implementation of national research policy and initiatives, including the Higher Education Research Group.

Appendix I: Membership of the Royal Irish Academy Working Group on the Humanities and Social Sciences

WORKING GROUP MEMBERS

DR MAURICE BRIC, MRIA, School of History and Archives, University College Dublin (*Chair*)

PROFESSOR JANE CONROY, MRIA, Department of French, National University of Ireland, Galway (*Vice-Chair*)

PROFESSOR KEVIN BARRY, Department of English, National University of Ireland, Galway

DR NIALL BRADY, Discovery Programme, Fitzwilliam Square, Dublin 2

PROFESSOR HOWARD CLARKE, MRIA, Secretary, RIA

PROFESSOR MICHAEL CRONIN, MRIA, Director of the Centre for Translation and Textual Studies, Dublin City University

PROFESSOR MARY DALY, MRIA, Principal, College of Arts and Celtic Studies, University College Dublin

DR AIDAN KANE, Director of CISC, National University of Ireland, Galway

PROFESSOR ÁINE HYLAND, Vice-President, University College Cork

DR EVELYN MAHON, Department of Sociology, Trinity College Dublin

PROFESSOR ANDREW MAYES, MRIA, Department of Religion and Theology, Trinity College Dublin

PROFESSOR ELIZABETH MEEHAN, MRIA, Emeritus Professor of Politics, Queen's University Belfast

DR MUIRIS Ó LAOIRE, Irish Department, Tralee Institute of Technology

PROFESSOR SEÁN Ó RIAIN, Department of Sociology, National University of Ireland, Maynooth

MS MARIE REDDAN, Librarian, National University of Ireland, Galway

PROFESSOR NICK REES, Department of Politics and Public Administration, University of Limerick

PROFESSOR DAVID SINGLETON, Centre for Language and Communication Studies, Trinity College Dublin

ROYAL IRISH ACADEMY SECRETARIAT TO THE WORKING GROUP:

Ms Vanessa Berman, Programme Manager

Ms Sinéad Riordan, Senior Research and Policy Officer

Ms Deirdre Stritch, Researcher (to July 2006)

Appendix II: Membership of the RIA Sub-Committees of the Working Group on the Humanities and Social Sciences

SUB-COMMITTEE ON INFRASTRUCTURES

Chair: Ms M. Reddan (NUI, Galway)

Dr N. Brady (Discovery Programme)

Ms C. Crowe (National Archives)

Mr C. Horton (Chester Beatty Library)

Mr A. Ó hAonghusa (National Library of Ireland)

Ms A. Kelly (An Comhairle Leabharlanna)

Mr J. McDonough (UCD)

Ms A. Neligan (NUI Maynooth; Chair, Consortium of National and University Libraries (CONUL))

Dr S. Ryder (NUI, Galway)

Dr E. Bhreathnach (UCD)

Dr M. Ó Laoire (IT Tralee)

SUB-COMMITTEE ON EUROPEAN AND INTERNATIONAL STRATEGIES

Chair: Professor M. Cronin (DCU)

Professor A. Chambers (UL)

Professor F. Ruane (ESRI)

Dr V. Crosbie (DCU)

Professor E. Meehan (QUB)

Professor N. Rees (UL)

Professor K. Sidwell (UCC)

Professor C. Whelan (ESRI)

Professor D. Singleton (TCD)

Professor R. Sinnott (UCD)

SUB-COMMITTEE ON DOMESTIC STRATEGIES

Chair: Professor M. E. Daly (UCD)

Dr M. Caball (UCD)

Mr C. O'Briain (National College of Art and Design)

Dr E. Mahon (TCD)

Professor N. Grene (TCD)

Professor P. O'Donovan (UCC)

Professor Seán Ó Riain (NUI, Maynooth)

Professor Séamus Mac Mathúna (University of Ulster)

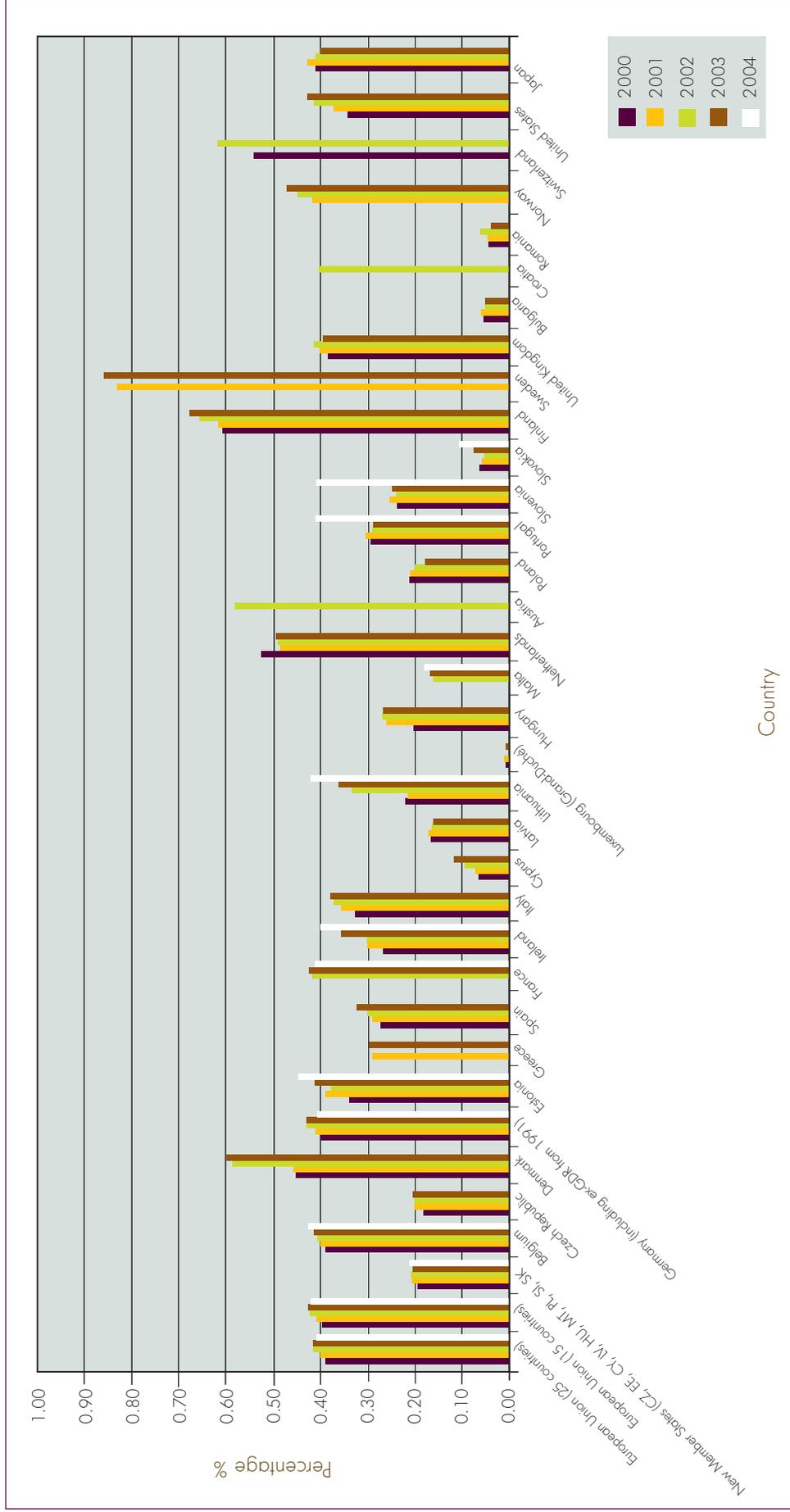
Dr S. P. Donlon (UL)

Professor A. Hyland (UCC)

Professor K. Barry (NUI, Galway)

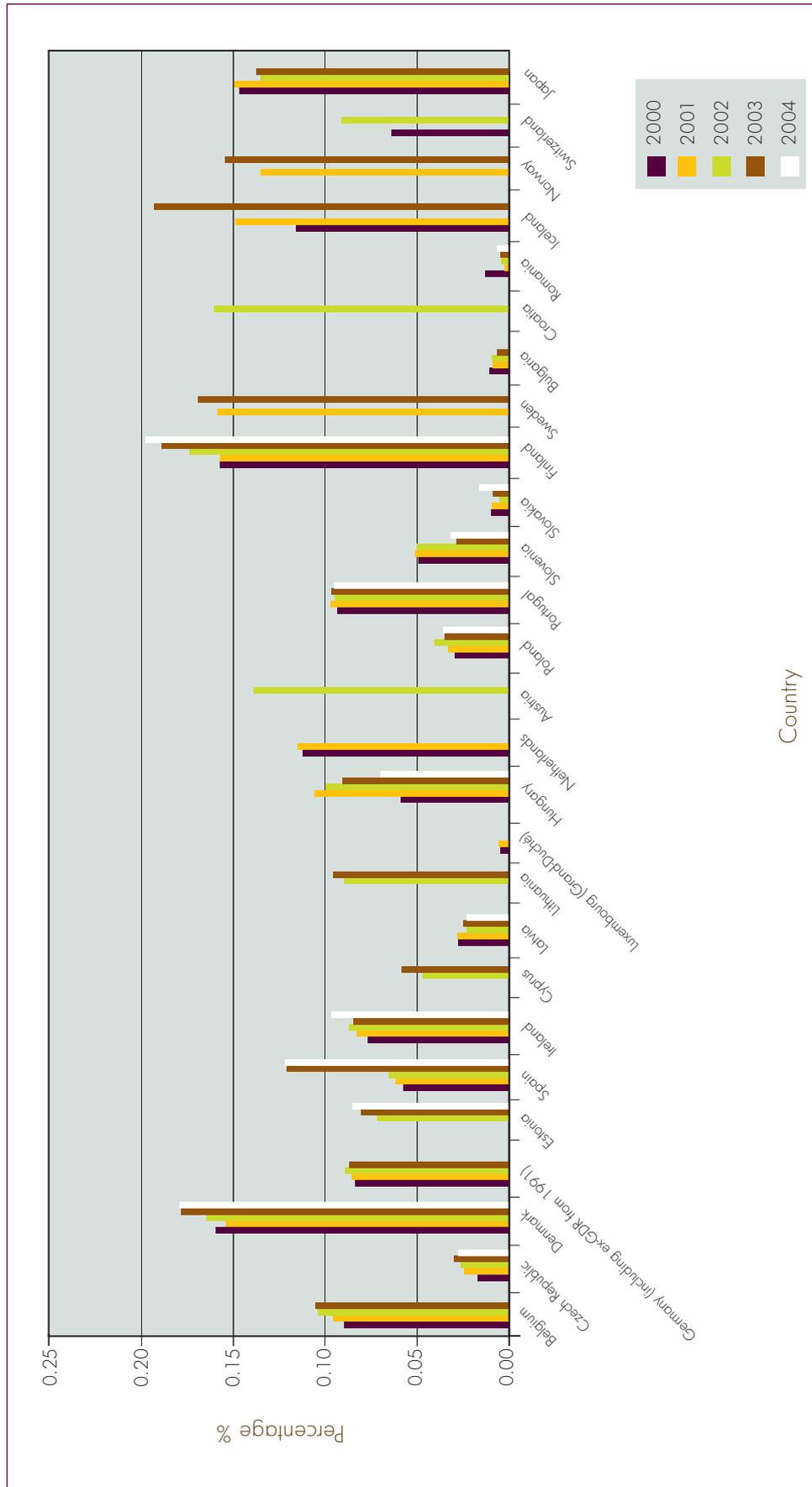
Appendix III: EU HERD Comparisons

Chart 6—HERD as a percentage of GNI 2000–2004*



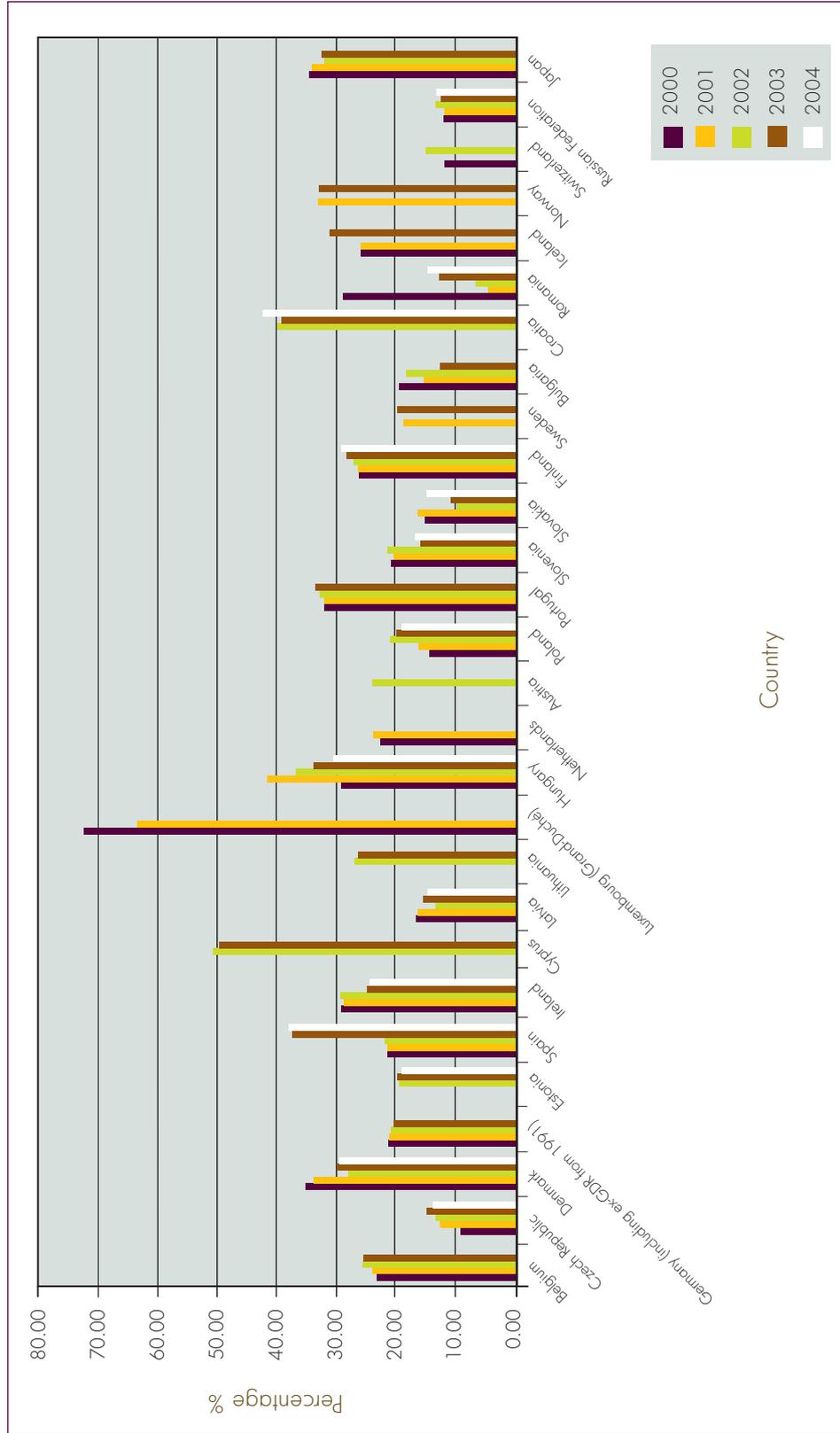
Source: Eurostat, extracted 11 April 2006.
 *Current prices; Millions of euro (from 1 January 1999)/Millions of ECU (up to 31 December 1998).

Chart 7 — Humanities and social sciences HERD as a percentage of GNI, 2000–2004



Source: Eurostat, extracted 16 July 2006.

Chart 8—HERD expenditure on humanities and social sciences as a percentage of HERD all fields of science, 2000–2004*



Source: Eurostat, extracted 18 July 2006.
 * Current Prices: Millions of euro (from 1 January 1999)/Millions of ECU (up to 31 December 1998).

Appendix IV: Research Councils in Finland, Norway, Portugal and Slovenia

In most European countries, funding for research is primarily managed by research councils in parallel with significant other agencies or instruments, as is the case in Ireland with the IRCHSS, IRCSET, SFI and the PRTL, such as their national academies.⁴⁸

FINLAND

The Academy of Finland is the main research-funding body for all scientific disciplines and it operates under the aegis of the Ministry for Education. It has four constituent research councils of which one is in the HSS (*Culture and Society*) and an annual budget of approximately €200m. The Academy supports a range of funding instruments including research projects and programmes, centres of excellence, researcher training, international cooperation as well as Research Academy Professors and Research Fellows.

Its main focus is on:

- The internationalisation of the Finnish science community;
- Supporting the development of innovative research environments;
- Promoting professional careers in research to ensure a sufficient supply of professional researchers;
- Advancing gender equality in research;
- Strengthening international cooperation and interaction;
- The creation of new kinds of expertise clusters to ensure the viability of the research system.⁴⁹

Annual Academy support for research at Finnish universities and research institutes amounts to €257m. This represents more than fifteen per cent of total government research funding. R&D funding increased in Finland all through the 1990s. In 1991 R&D stood for 2.1 per cent of GDP, whereas in 2005, the share is estimated at 3.5 per cent. In the state budget for 2006, state allocations for R&D amounted to €1.68 billion, in comparison to €1.59 billion in 2005. In recent years the Academy has

⁴⁸ In some countries, separate councils for HSS, founded at different dates, have been maintained. The United Kingdom is one such instance where there has been a separation of humanities from social sciences. The Social Science Research Council (now the Economic and Social Research Council) was first founded in 1965, and the Arts and Humanities Research Board, being created comparatively late in 1998, and since 2005 replaced by the Arts and Humanities Research Council. Similar separation occurs in the Czech Republic. In certain countries there are two councils, each with different funding roles covering the same disciplines, for example in Estonia with the Estonian Science Foundation, founded in 1990, and the Ministry for Education's Research Competence Council which manages certain large-scale awards.

⁴⁹ As part of this broad strategy, the Academy became a funding partner in the establishment of Nordic Centres of Excellence with the explicit aim of increasing the visibility of Nordic research in Europe, to create Nordic added value and further increase the scientific quality of Nordic research. The Joint Committee for Nordic Research Councils for the Humanities and Social Sciences has selected four Nordic Centres of Excellence, the first of which will run between 2005 and 2010.

put more money into R&D activities in the social sciences than in engineering (€24m against €16m) (ESF 2005).

In spite of the greater resources made available, competitive research funding in Finland finds itself in an increasingly difficult position because the continuing qualitative and quantitative growth of the science community means that competition for funding is increasingly fierce.

No more than between ten and twenty per cent of the number of applications for funding through the Academy's key funding instruments are now being accepted. Too many research projects are being turned down and not getting the money that they need, even though they are rated as excellent. In 2005 research projects received 42 per cent of total Academy research funding in 2004. Research programmes accounted for twelve per cent of all research-funding decisions, researcher training for nineteen per cent, research posts for eleven per cent, international cooperation for eight per cent and centre of excellence programmes for eight per cent.



NORWAY

The Research Council of Norway (RCN) was established in 1993 and plays a central role in Norwegian research. The RCN mandate is to promote and support basic and applied research in all areas of science, technology, medicine and the humanities. The RCN is the principal research-policy adviser to the government. In 2004 the RCN published its strategy document, *Research Expands Frontiers*, that identified five main goals for the RCN to 2010:

- Enhancing the contribution of research to social development;
- Increasing research for innovation;
- Promoting professional careers in research;
- Committing to the creation of a quality-research basis at national level in the HSS to support effective international networking and research cooperation;
- Increasing the internationalisation of Norwegian research.

Funding from the RCN increased considerably between 1999 and 2003 in line with government intentions to channel a larger proportion of R&D funding through the council. In 2003 the RCN's annual budget was more than NOK5 billion and it financed more than one-fifth of the higher-education sector's public R&D expenditure. The Ministry of Education and Research and the Ministry of Trade and Industry are the most important contributors to the budget of the Research Council of Norway.

The total R&D expenditure in 2003 in Norway amounted to NOK27.3 billion or 1.73 per cent of GDP. Of this total R&D expenditure, fifteen per cent was allocated to the HSS. The higher-education sector spent 27 per cent of the total R&D expenditure in 2003. Looking at the higher-education sector expenditure on R&D we see that 87 per cent (or NOK6.5 billion) came from public sources, including the RCN.⁵⁰ R&D expenditure in the higher-education sector on the HSS posted an annual real growth of seven per cent in the two-year period from 2001 to 2003.

In 2002 the Norwegian government created a national network of Centres of Excellence to promote long-term basic and applied world-class research over periods of between five and ten years. These centres are seen as a way of maximising the small scale of the Norwegian research community and a way of engendering more funding, competition, interaction and internationalisation. Thirteen centres were established, of which three promote research in the HSS.⁵¹

Norway attaches great strategic importance to international collaboration as a complement to its national programmes. The RCN is responsible for managing

⁵⁰ Research Council of Norway (RCN 2006, 21), 2005 Report on Science and Technology Indicators for Norway, available online at: www.forskningsradet.no/servlet/Satellite?blobcol=urlvedleggfil&blobheader=application%2Fpdf&blobkey=id&blobtable=Vedlegg&blobwhere=1150814000724&ssbinary=true (16 January 2007).

⁵¹ A 1999 report on research priorities identified a number of HSS issues as crucial to the development of Norwegian society and economy and pointed to the need to achieve world-class research in these areas. Available online at: http://odin.dep.no/kd/english/doc/white_paper/014005-990480/dok-bn.html (16 January 2007).

Norway's involvement in the EU FP. Since October 2005, it has maintained permanent representation in Brussels to facilitate participation in the FP and keep its own scientists informed on research policy and opportunities. Norwegian scientists are involved in every fourth contract within FP6 and in nearly every second contract in ERA-NET.⁵²

PORTUGAL

The Fundação para a Ciência e a Tecnologia (FCT)—Foundation for Science and Technology—is the Portuguese governmental agency for non-applied research funding and is integrated in the Ministry of Science and Higher Education.⁵³ It is the main research-funding agency for all fields of science and all the actors from research teams in public sector and universities to the private sector. In 2002 FCT had an overall budget of €194.6 million.⁵⁴

The main objective of Portuguese research funding is to create critical mass at national level to increase the impact of Portuguese research internationally and to enable it to compete more effectively for European funding. FCT supports research centres and institutes of higher education through its R&D Units Pluri-annual Funding Programme. The FCT provides the institutional framework for the state and associate laboratories. The laboratories research programmes are closely linked to government research priorities.

Although there are currently no state laboratories in the HSS, two out of the fifteen *associate* laboratories are dedicated to the HSS. Its commitment to long-term, strategic funding, primarily in the social sciences, is based on the belief that Portuguese research groups need to be sufficiently strong nationally to compete internationally, and that national and EU research priorities should complement each other.

SLOVENIA

Like Ireland, Slovenia developed a focused and specific research policy relatively recently. The Slovenian Research Agency (AzRD) was established in 2003 to promote international cooperation, target opportunities for young researchers, and infrastructures. The AzRD provides permanent, professional and independent decision-making on the selection of programmes and projects financed from the state budget and other financial sources.

⁵² Available online at: http://cordis.europa.eu.int/norway/eu_en.html (16 January 2007).

⁵³ It was created in July 1997 on the basis of two ancestors from which it inherited functions, competences, and the tradition: JNICT, the National Board for Scientific and Technological Research (1967–1997), and INIC, the Portuguese Research Council (1929–1992). Available online at: www.norface.org/norface/publisher/index.jsp?&nlID=93&plD=95&nlD=195 (16 January 2007).

⁵⁴ Available online at: www.eurobiodiversa.org/FCT-2C-Portugal_68.html (16 January 2006).



The AzRD manages three types of research instruments, which fund research programmes, research projects or targeted research programmes. *Research programmes* typically reflect the concerns of the Slovenian National Research and Development Programme. In 2004 262 research programmes were funded, comprising some 831.9 FTE researchers, of which 80 relate to HSS research areas. *Research projects* are not specifically linked to issues of national interest and can be either of a basic or applied nature. In 2004 113 of a total of 415 FTE researchers funded and assessed were in HSS areas. Finally, *targeted research programmes* are problem-oriented and aimed at improving the standard of living in Slovenia. In 2004 the budget for the targeted research programmes was nearly €3m, of which some €1.7m was awarded to HSS applications.⁵⁵

⁵⁵ Available online at: www.arrs.gov.si/en/progproj/rprog/obseg.asp (16 January 2006).

References

Bric, M.J. 1999 *The humanities and the social sciences: a case for a research council*. Dublin. Higher Education Authority (HEA).

British Academy 2004 *'That full complement of riches': the contributions of the arts, humanities and social sciences to the nation's wealth*. London. British Academy.

Consortium of National and University Libraries (CONUL) 2006 *Research support survey*. Dublin. CONUL. Available online at: www.conul.ie/publications/ (accessed on 23 January 2007).

CIRCA Group 1996 *A comparative international assessment of the organisation, management and funding of university research in Ireland and Europe: report for the Higher Education Authority*. Dublin. HEA.

Department of Education and Science (DES) 2005 *Statement of strategy 2005–2007*. Dublin. Department of Education and Science.

Department of Enterprise, Trade and Employment (DETE) 2006 *Strategy for science, technology and innovation 2006–2013*. Dublin. Government Stationery Office.

Downey, L. 2003 *Creating Ireland's innovation society: the next strategic step*. Dublin. HEA and Forfás.

Enterprise Strategy Group 2004 *Ahead of the curve: Ireland's place in the global economy*. Dublin. Enterprise Strategy Group and Forfás.

European Commission 1999 *Targeted socio-economic research programme: synopses of projects funded as results of the three calls for proposals*. Brussels. European Commission Directorate-General for Research.

European Commission 2003a *Communication from the Commission: Investing in research: an action plan for Europe*. Brussels. European Commission Directorate-General for Research.

European Commission 2003b *Improving the socio-economic knowledge base: synopses of key action projects funded as a result of the three calls for proposals (1999–2002)*. Brussels. European Commission Directorate-General for Research.

European Commission 2003c *An agenda for a growing Europe: making the EU economic system deliver*. Brussels. European Commission Directorate-General for Research. Available online at: www.euractiv.com/ndbtext/innovation/sapirreport.pdf#search=%22Sapir%20%2B%20Report%20%2B%20Europe%22 (15 January 2007).

European Commission 2005a *Impact assessment of the Marie Curie fellowships under the 4th and 5th Framework Programmes of Research and Technological Development of the EU (1994–2002)*. Brussels. European Commission Directorate-General for Research.

European Commission 2005b *The European charter for researchers and the code of conduct for the recruitment of researchers*. Brussels. European Commission Directorate-General for Research. Available online at http://ec.europa.eu/eracareers/index_en.cfm?l1=29&CFID=5619985&CFTOKEN=beeab1704176db6c0F46C760-0EEF-3693-1BAF47818D1804BA (15 January 2007).

European Commission 2006a *Sixth framework programme research in the social sciences and humanities: projects' synopses*. Brussels. European Commission Directorate-General for Research.

European Commission 2006b *Structuring the European Research Area. Human resources and mobility Marie Curie actions, work programme*. Brussels. European Commission Directorate-General for Research. Available online at: http://ec.europa.eu/research/fp6/mariecurie-actions/action/level_en.html (15 January 2007).

European Commission's Advisory Group on Social Sciences and Humanities in the European Research Area (SSHERA) 2005a *Position Paper (PP8): Developing infrastructures for social sciences and humanities in FP7*. Brussels. European Commission Directorate-General for Research. Available online at: http://ec.europa.eu/research/social-sciences/pdf/research_infrastructures_ssh_en.pdf (15 January 2007).

SSHERA 2005b *Position Paper (PP11): Social sciences in technology platforms: methodological and practical reflections*. Brussels. European Commission Directorate-General for Research. Available online at: http://ec.europa.eu/research/social-sciences/pdf/social_sciences_technology_platforms_en.pdf (15 January 2007).

SSHERA 2005c *Position Paper (PP6): institutional framework of the European Research Area: some critical notes*. Brussels. European Commission Directorate-General for Research. Available online at: http://ec.europa.eu/research/social-sciences/pdf/insti_framework_era_en.pdf (15 January 2007).

European Science Foundation (ESF) 2005 *An ESF Standing Committee for the Social Sciences (SCSS) report: Social sciences in Europe*. Available online at: www.esf.org/publication/191/BrochSocialScience.pdf (15 January 2007).

European Strategy Forum on Research Infrastructures (ESFRI) 2006 *Roadmap for European Research Infrastructures. Report of the Social Sciences and Humanities Roadmap Working Group*. Available online at: ftp://ftp.cordis.europa.eu/pub/esfri/docs/ssh-rwg-roadmap-report-2006_en.pdf (23 January 2007).

Forfás 2000 *Survey of Research and Development in the higher education sector 1998*. Dublin. Forfás.

Forfás 2003 *Survey of Research and Development in the higher education sector 2000*. Dublin. Forfás.

Forfás 2004a *Building Ireland's knowledge economy: the Irish action plan for promoting investment in R&D to 2010. Report to the Inter Departmental Committee on Science, Technology and Innovation*. Dublin. Forfás.

Forfás 2004b *Survey of Research and Development in the higher education sector 2002*. Dublin. Forfás.

Forfás 2005a *Survey of Research and Development in the higher education sector 2004*. Dublin. Forfás.

Forfás 2005b *Research and Development in Ireland, 2005—at a glance*. Dublin. Forfás.

Forfás 2006 *Forfás innovation survey. The fourth community innovation survey—first findings*. Dublin. Forfás.

Government of Ireland 2000 *National Development Plan 2000–2006*. Dublin. The Stationary Office.

Government of Ireland 2007 *National Development Plan 2007–2013: Transforming Ireland*. Dublin. The Stationary Office.

Higher Education Authority (HEA) 2003 *What do graduates do?* Dublin. HEA.

HEA 2004a *The Programme for Research in Third Level Institutions (PRTL) impact assessment: executive summary*. Dublin. HEA. Available online at: www.heai.ie/index.cfm/page/publications/category/143/section/details/id/781 (15 January 2007).

HEA 2004b *Achieving equity of access to higher education in Ireland. Action plan 2005–2007*. Dublin. HEA.

HEA 2006a *What do graduates do? The class of 2004*. Dublin: HEA.

HEA 2006b *Higher education key facts and figures 2004–2005: HEA funded institutions*. Dublin. HEA.

HEA 2006c *Graduate education forum—Key guiding principles*. Dublin. HEA. Available online at: www.heai.ie/uploads/pdf/Key%20Guiding%20Principles.pdf (15 January 2007).

HEA 2006d *Who went to college in 2004?* Dublin. HEA.

Hegarty, J. 2006 'Our academic community could lead world'. Opinion piece, the *Irish Times*, 23 November 2006.

Inter Departmental Committee on Science, Technology and Innovation (IDC) 2004 *Building Ireland's knowledge economy—The Irish action plan for promoting investment in R&D to 2010*. Dublin. Department of Enterprise, Trade and Employment (DETE).

Irish Council for Science, Technology and Innovation (ICSTI) 1999 *Technology Foresight Ireland: an ICSTI overview*. Dublin. Forfás. Available online at: www.forfas.ie/icsti/statements/tforesight/intro.htm (15 January 2007).

Irish Research Council for Humanities and Social Sciences (IRCHSS) 2004 *Submission to the OECD review of higher education in Ireland*. Available online at: www.irchss.ie/xdownloads/oecd.doc (15 January 2007).

IRCHSS 2005 Report on the Humanities and Social Sciences Focus Group on National Support Structure Requirements for FP7. Workshop at the IRCHSS, 16 November 2005. Unpublished, IRCHSS.

IRCHSS 2006/2007 *Government of Ireland research scholarships in the humanities and social sciences: terms and conditions: assessment procedures*. Available online at: www.irchss.ie/xdownloads/s1terms06.pdf (15 January 2007).

Irish Research Council for Science, Engineering and Technology (IRCSET) 2006 *Government of Ireland research scholarships in science, engineering and technology: terms and conditions*. Available online at: www.ircset.ie/grant_schemes/postgrad/terms_conditions_0607.pdf (15 January 2007).

Irish Universities Association (IUA) 2004 *'The future of the PhD in Ireland': attracting and retaining postgraduate researchers in Irish universities*. Proceedings of a conference held by Conference of Heads of Irish Universities, 9/10 November 2004, IUA. Dublin.

Martin, B. 1995 *Technology foresight ó: a review of recent overseas programmes*. London. HMSO.

Organisation for Economic Co-operation and Development (OECD) 2004 *Review of national policies for education: review of higher education in Ireland*. Available online at: www.education.ie/servlet/blobServlet/oecd_review_national_policies_education.doc (15 January 2007).

Research Council of Norway (RCN) 2006 *Report on science and technology indicators for Norway 2005*. Oslo. Research Council of Norway. Available online at: www.forskningsradet.no/servlet/Satellite?blobcol=urlvedleggfil&

blobheader=application%2Fpdf&blobkey=id&blobtable=Vedlegg&blobwhere=1150814000724&ssbinary=true (15 January 2007).

Royal Irish Academy (RIA) 2004 *Sustaining and Enhancing Research Investment in Ireland*. Dublin: Royal Irish Academy.

Royal Irish Academy 2005 *Cumhacht Feasa: Report of the Working Group on Higher Education*. Dublin: Royal Irish Academy.

Solow, R.M., Oakley F., Franklin, P. *et al.* 2002 *Making the humanities count: the importance of data*. Cambridge, MA. American Academy of Arts and Sciences.