



UK Council *for* Graduate Education

Ireland – UKCGE: Colloquium on Graduate Education

*Strategies for Generic Skills Training, Development of Research Supervisors
and Innovation in Doctoral Programmes*

24th & 25th October 2007

The Burlington Hotel, Dublin

embarkinitiative
Investing in People and Ideas



Higher Education and
Training Awards Council
Comhairle na nDámhachtainí
Ardoideachais agus Oiliúna



Irish Universities Association
Cumann Ollscoileanna Éireann



International Mobility of Researchers

UKCGE Dublin 24th October 2007

Dr Conor O'Carroll

www.iua.ie

International Mobility

Mobility of researchers encompasses international, inter-disciplinary, inter-sectoral, inter-institutional – focus here is on international (i.e. long term stays abroad for PhD)

Look at issues for Europe, US and Ireland in the pursuit of attracting PhD students from abroad

Does the drive towards the Knowledge Based Society and doubling number of researchers imply there will be less international mobility?

When is mobility appropriate?

Issue under consideration by Expert Group on EC Green Paper,
*“Single Labour Market for Researchers”**

PhD level – students in 22-30 age bracket across Europe and
seek an excellent location for PhD

Senior Researchers – more concerns about employment
stability, family, pensions etc

- only 6% of applicants to ERC Starting Investigator Grant willing to move
- Average number of non national researchers across EU is 6%

* See also, L. Ackers http://www.liv.ac.uk/law/elprg/docs/ELP_Green_Paper_Response_2007.pdf

What attracts PhD students?

Quality of Research Environment (people and facilities)

Structured Graduate Programmes

Funding and status

No administrative obstacles (visas etc)

Language

Subsequent job opportunities within/without academia?

Mobility in Europe

The EC Marie Curie Programme has provided major funding for PhD students

More than 50% of the total budget is dedicated to funding PhD's (e.g. through Training Networks)

Currently more than €2.4bn in FP7 that will fund a total of 36,000 PhD years (or 11,000 students for 3 years)

Mobility in Europe

Data from Marie Curie shows that there is a concentration of host groups in UK, DE and FR while a wide spread in nationalities of students

Host	%
UK, DE	12
FR	10
IT	9
NL, ES	5

Students	%
FR, IT	8
DE, ES	5
RO, PL, UK	2.5

Structures - Changing Policy in US

US Banff Principles*

Graduate education, involving both masters and doctoral programs, is the key to creating a knowledge-based economy.

The principles include,

- Promote the quality of graduate programs
- Develop global career competencies and awareness in graduates
- Encourage innovation in programs and graduates

*US Council for Graduate Studies (CGS), http://www.cgsnet.org/portals/0/pdf/mtg_BanffPrinciples.pdf

Structures - Changing Policy in Europe

EUA Doctoral Programme*

Doctoral education in Europe is facing the challenges of the fast changing global labour market, policy objectives of the EU (Lisbon) and the Bologna process.

Trend towards structured programmes and doctoral/research/graduate schools:

- 30% of institutions in Europe have established doctoral/research/graduate schools
- only 5 of 46 countries have solely individual-based programmes

*S.Bitusikova, http://www.grad.ac.uk/downloads/documents/UK%20GRAD%20and%20UK%20HERD%20Event%202007/UK%20GRAD%20Participant%20Information/Plenary%20Presentations/Bitusikova_300.pdf

Structures - Changing Policy in Europe

EC – Green Paper*

Revisiting the goals of the European Research Area focusing on an adequate flow of competent researchers and excellent research institutions. Emerging topics:

- Develop professional models for doctoral programmes including transferable skills, multidisciplinary career paths in place of the academic apprenticeship model
- Need for application of the EU Charter for Researchers and Code of Conduct for their Recruitment (e.g. open and transparent recruitment of PhD students)

*http://ec.europa.eu/research/era/consultation-era_en.html

Structures - Changing Policy in Ireland

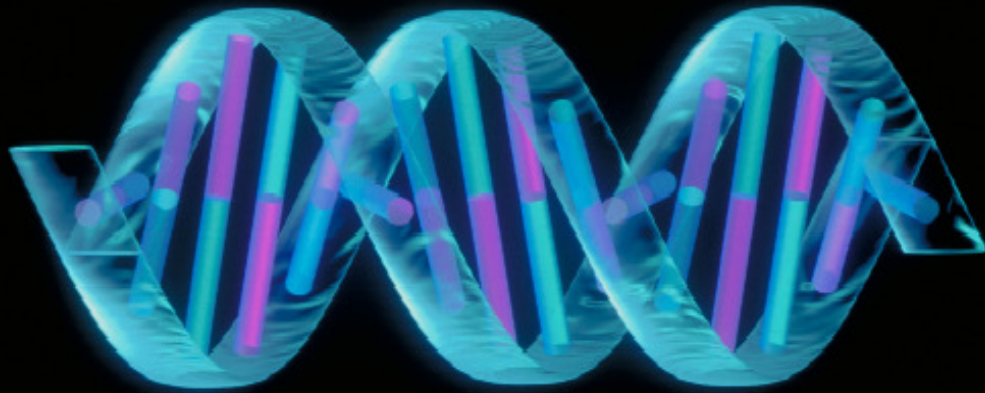
Irish Universities

Key policy document, *Reform of 3rd Level and Creation of 4th Level Ireland IUA (2005)* includes the move from traditional apprenticeship PhD to a structured programme:

4th Level Network is:

- Developing generic training learning outcomes
- Structuring at national level and promote integration of PhD generic, personal and professional skills development.
- Establishing a Graduate Education Forum for HE sector, funders, industry and stakeholders to share and embed best practice
- Promoting PhD Quality Assurance

Strategy for Science, Technology and Innovation



2006 ~ 2013



Key points:

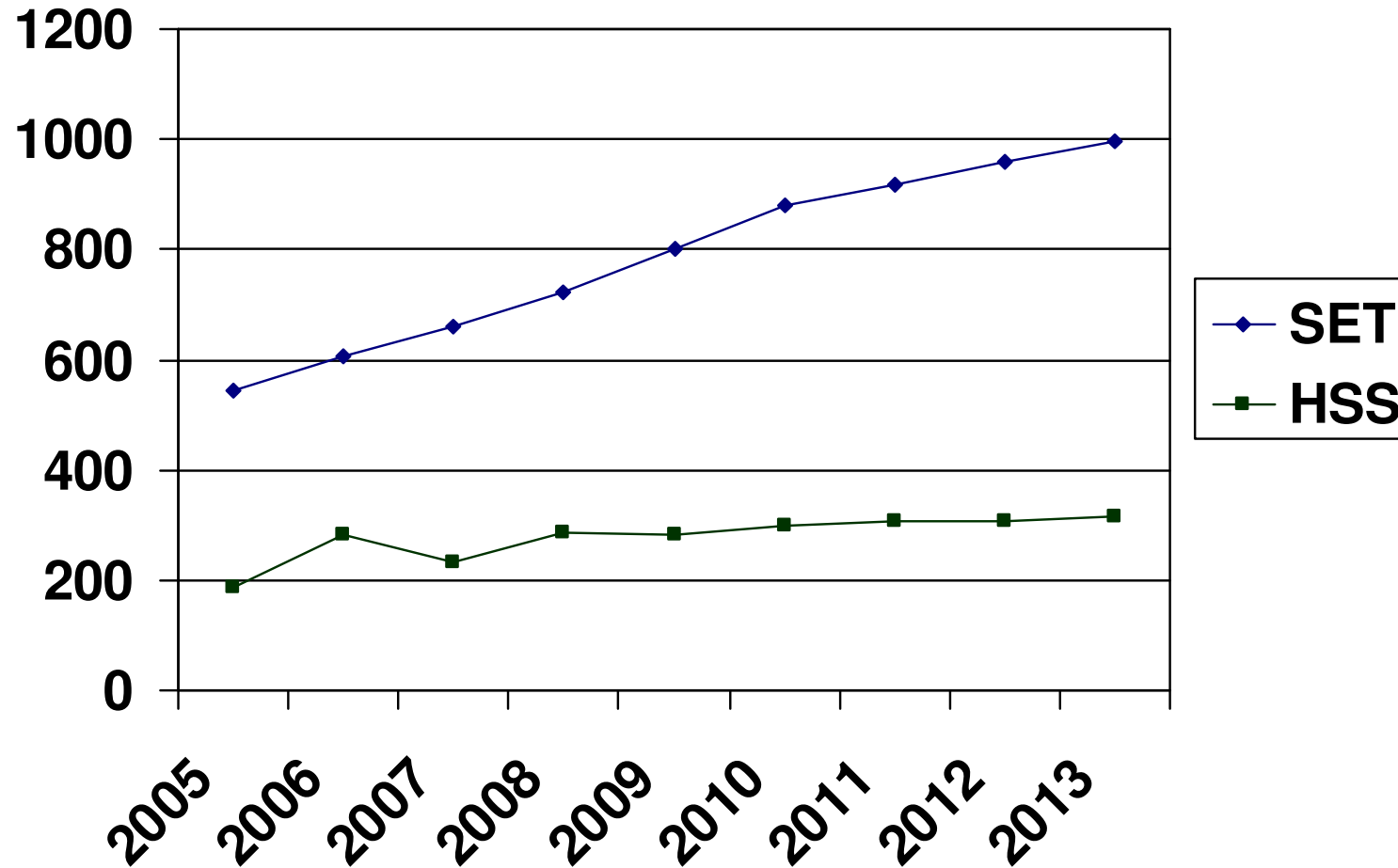
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- o Relatively under-developed STI sector in Ireland
- o Need for dramatic leap forward
- o Strategic decision to develop world-class research system in Ireland
- o Increase research capacity, quality and output
- o Develop 4th Level Ireland
- o Double PhD output, structure training, develop careers, encourage mobility
- o Estimated additional cost of €1.88 billion to 2013
- o Spending predicted of €2.7 billion to 2008 to implement strategy
- o Provision for:
 - 350 PI's
 - 1050 Postdocs
 - 3500 PhD Students

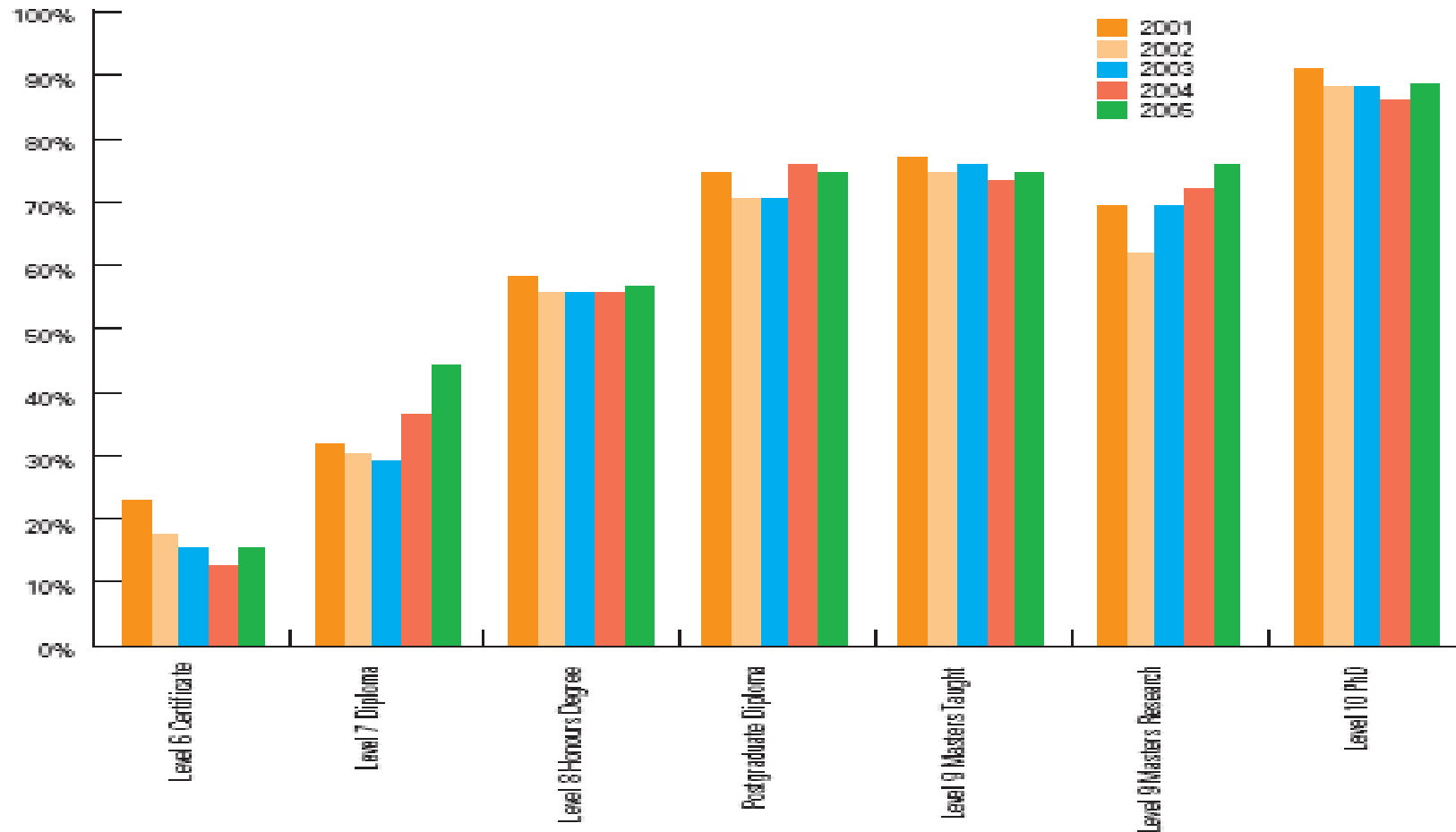
To implement SSTI Ireland needs (about):

- ~7000 PhD students (3500)
- ~4000 Postdoctoral Researchers (3000)
- ~1650 Principal Investigators (1300)

Growth in PhD graduates predicted in SSTI

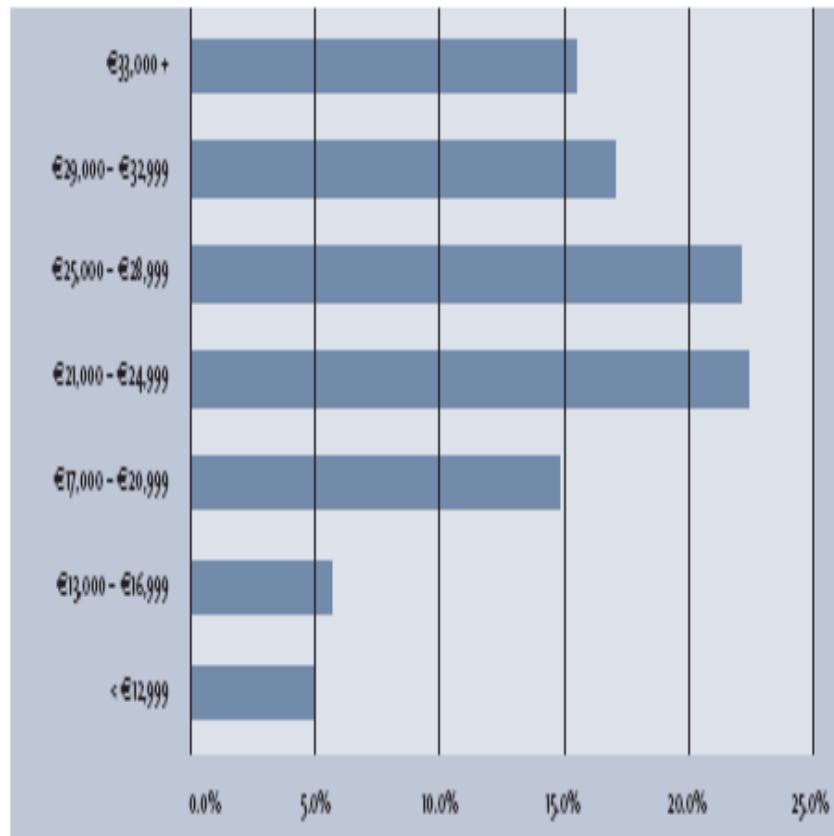


Note: HSS numbers include post-docs



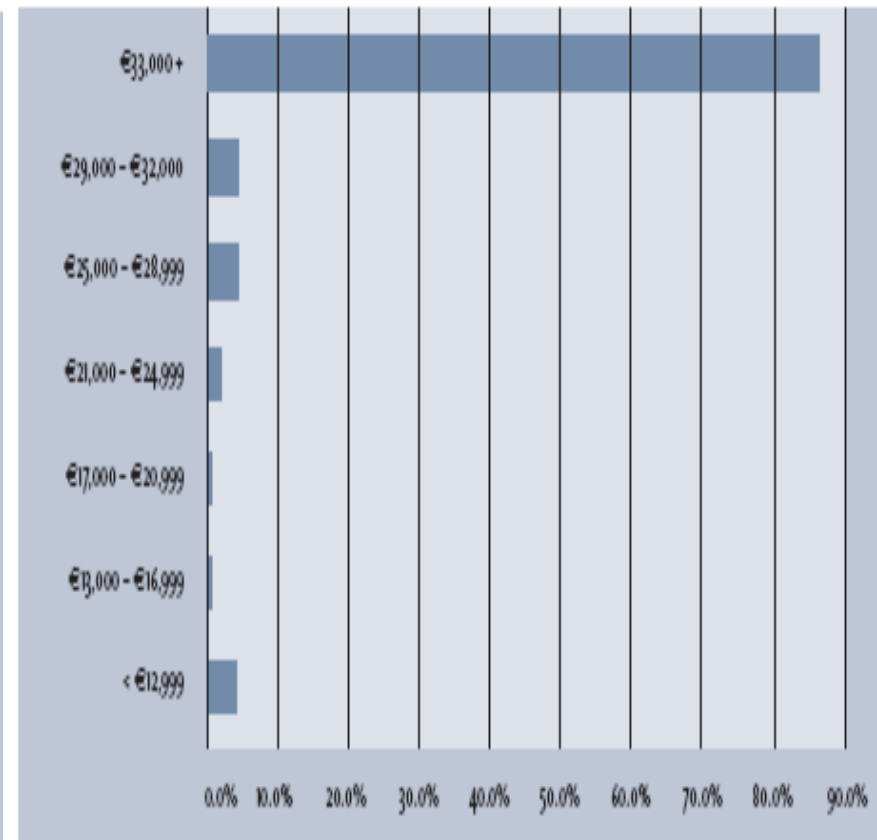
% of award recipients in employment 9 months after graduation (01-05), HEA

Figure 2.4 Honours Bachelor Degree (Level 8) Graduate Salaries



Total Respondents: 4,501 Response Rate: 36%

Figure 2.8 PhD (Level 10) Graduate Salaries



Total Respondents: 140 Response Rates: 24%

Initial Salary comparison between 2005 Honours Bachelors and PhD graduates HEA

Will the changing structures for the PhD encourage or dissuade potential international PhD Students?

Will they view it as a dissolution of the traditional PhD or will they see it as a better means to secure employment within/without academia?

National funding policy is driving towards a doubling of PhD graduates and this will necessitate attracting students from abroad but will they be retained?

Should Ireland therefore focus more on retaining its own graduates to do PhD's instead of attracting from abroad?