Role of Higher Education in Supporting Economic Development

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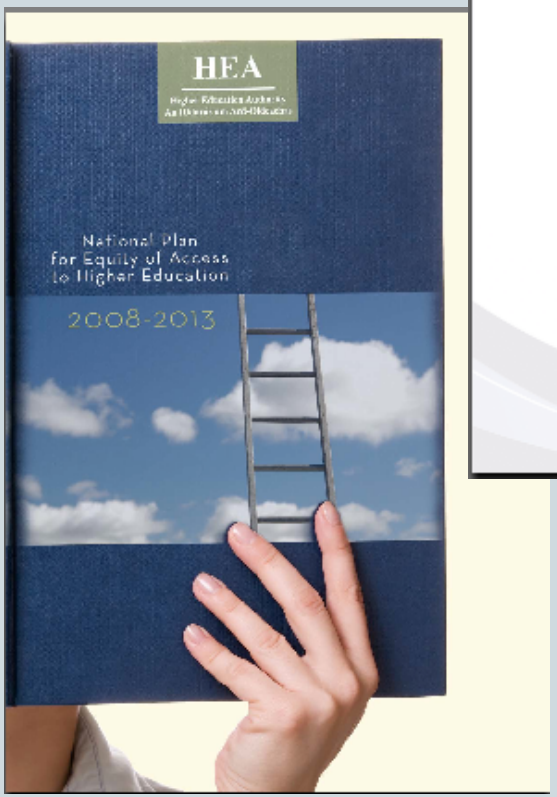
The Role of Higher Education in Supporting Economic Development

- Higher Education Landscape in 2010
- Developing Human Capital
- Transferring Knowledge
- Continuing Professional Development
- Supporting Enterprises through Economic Development Units

Reference


www.innovationtaskforce.ie
Innovation Ireland
Report of the
Innovation
Taskforce
Summary
March 2010
Ireland - The Smart Economy


HEA
National Plan
for Equity of Access
to Higher Education
2008-2013


Building Ireland's Smart Economy
A Framework for Sustainable Economic Renewal


HEA
WHO WENT TO COLLEGE IN 2004?
A NATIONAL SURVEY OF NEW
ENTRANTS TO HIGHER EDUCATION
PHILIP J. O'CONNELL, DAVID CLANCY AND SELINA McCOY

Higher Education Institutions

- 7 Universities
- 14 Institutes of Technology
- Other Colleges
- Private Colleges

- Student Enrolments in 2008
- IoTs – 54,464
- Universities – 73,098
- Total – 127,562

Future Landscape of Higher Education in Ireland

- Higher Education Strategy Group
- Rationalisation
- University of Technology?
- Funding?
- Research
- Flexible Learning

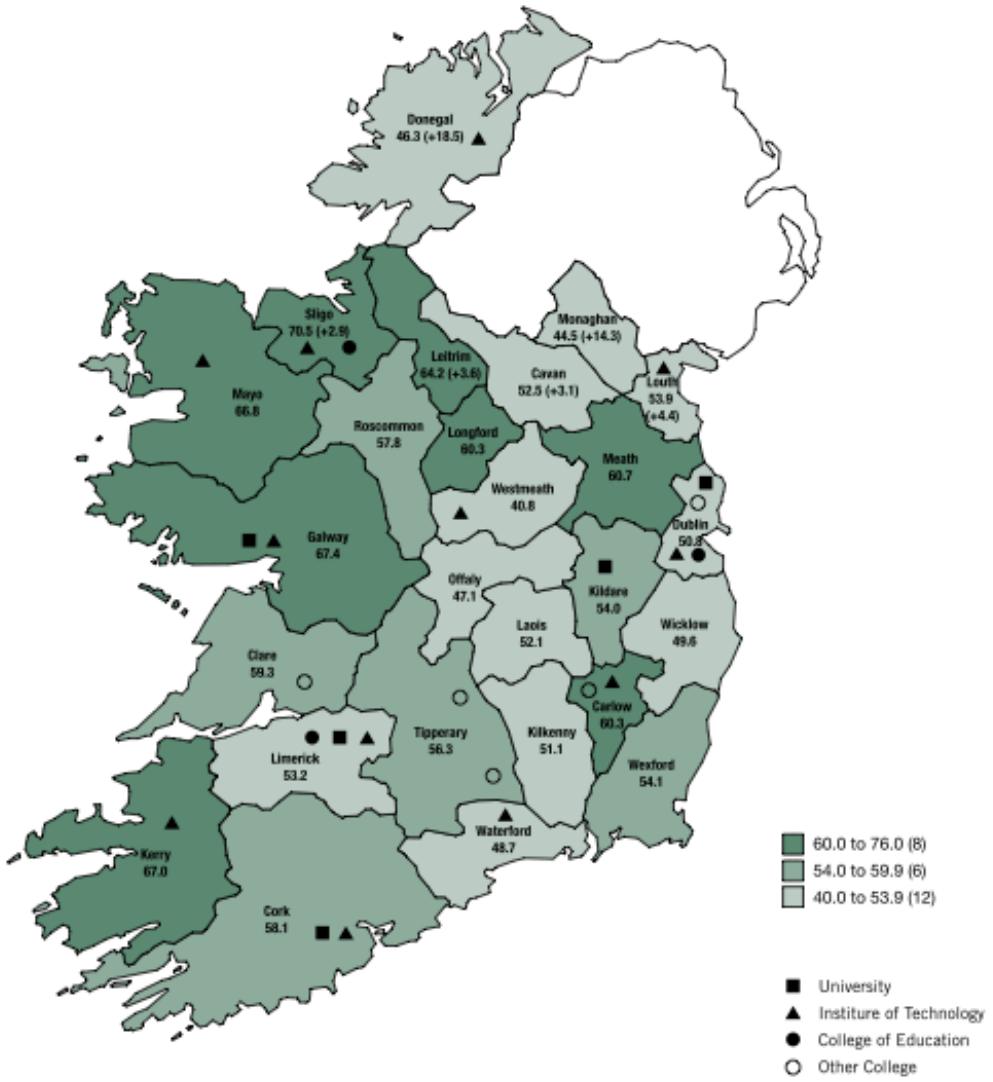
Producing Human Capital
Growing Participation in Ireland

Year	% Participation
1980	20%
1986	25%
1992	36%
1998	44%
2003	54%
2008	58%
2020	72%

New Entrants to IOTs up by 10% between 2007/08 and 2008/09
Mature Entrants to IOTs up by 20% between 2007/08 and 2008/09

Admission by County

Map 5.1 Admission Rates in 2004 by County



International Comparators

Graduation Benchmarks 2003

	Diploma/ Certificate		Degree		Postgrad
1	Japan (26.4)	1	Australia (49.0)	1	Sweden (2.8)
2	**Ireland (19.3)**	7	UK (38.2)	5	Germany (2.0)
6	UK (13.8)	**8**	**Ireland (36.8)**	8	UK (1.8)
7	Germany (10.0)	12	US (32.9)	12	US (1.2)
9	US (8.8)	18	Germany (19.5)	**13**	**Ireland (1.1)**

Application Patterns
Science, Engineering, Technology

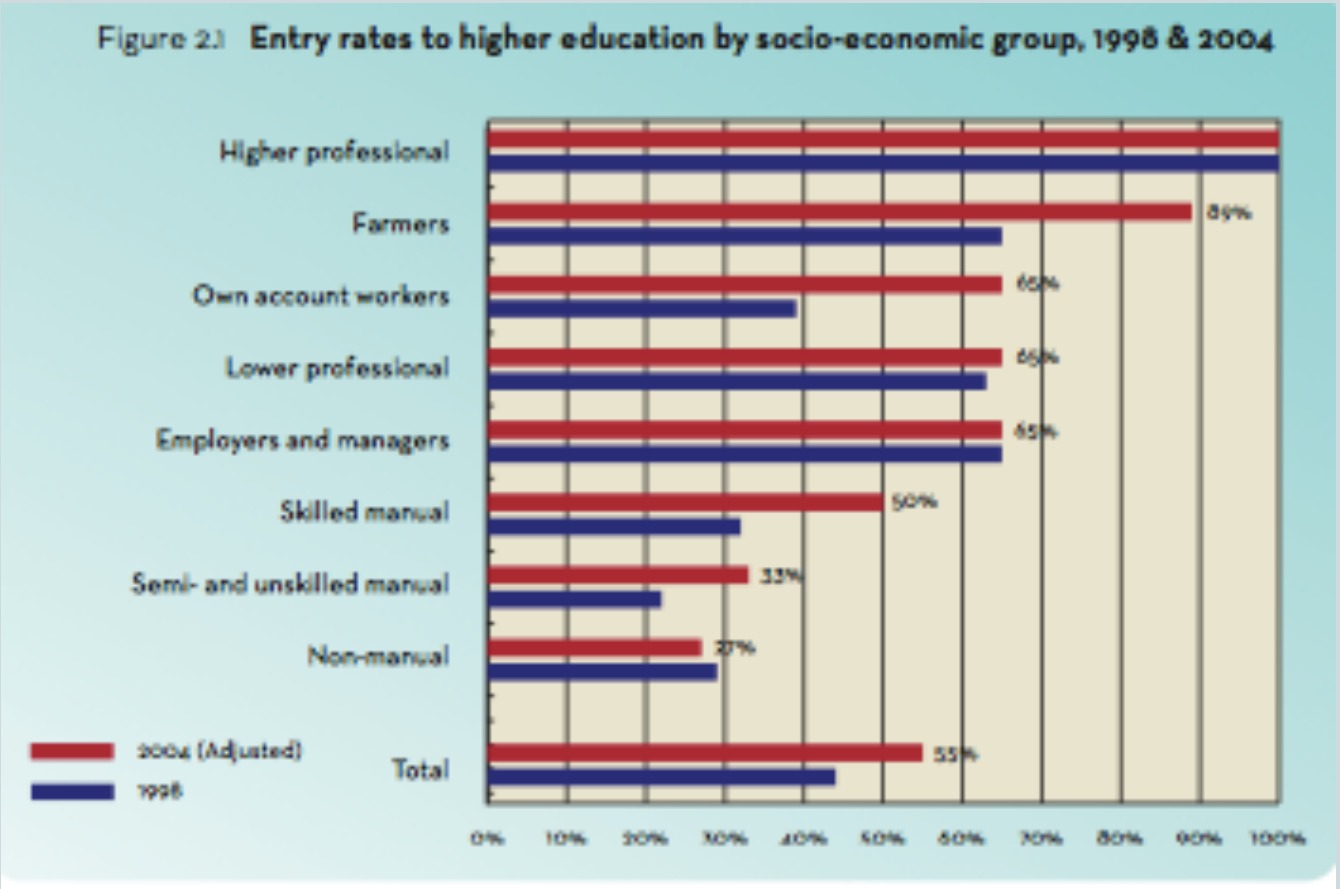
Application Patterns
Arts, Social Science, Business

Application Patterns
Art, Design, Built Environment

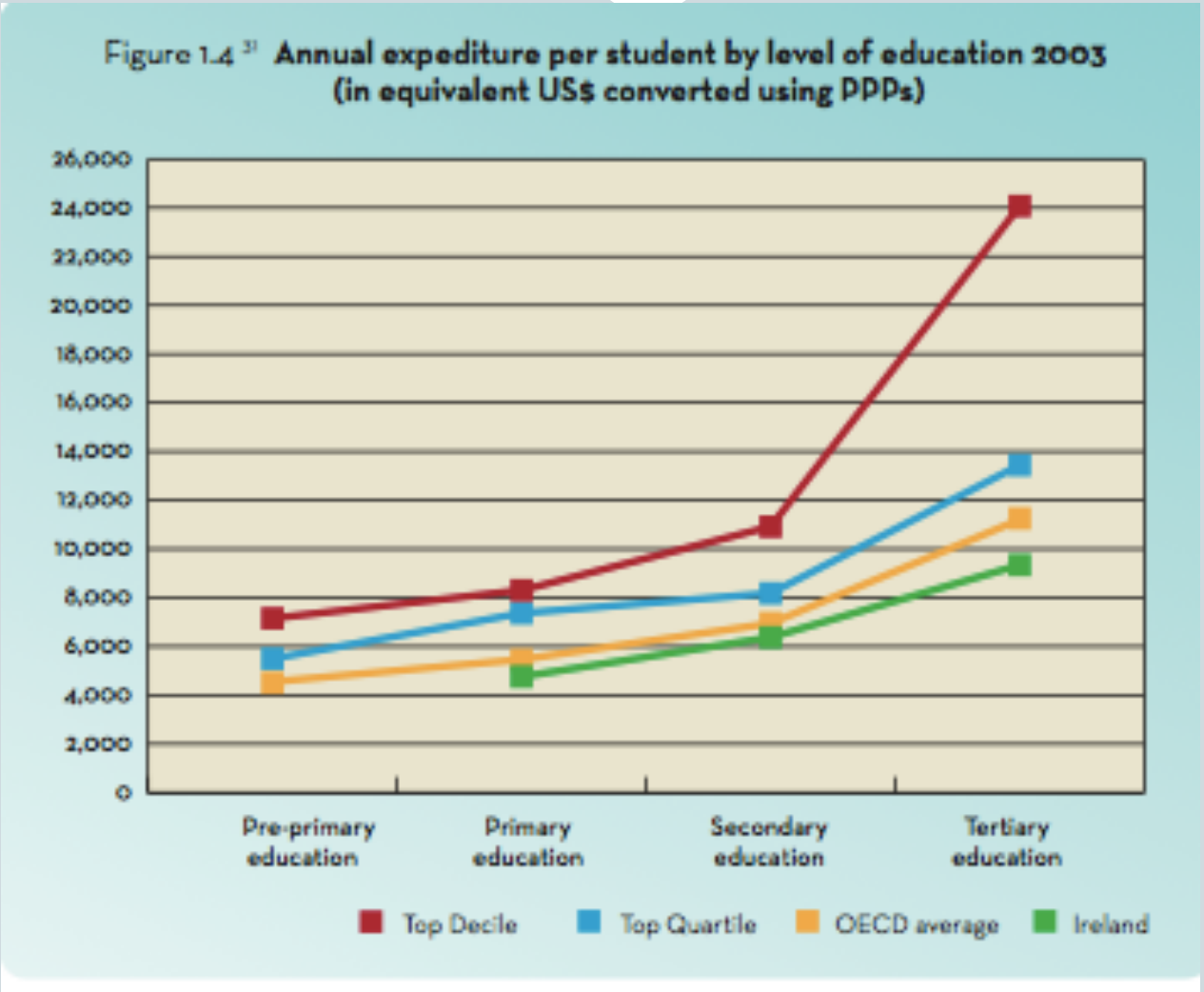
Participation Targets

- 72% of population by 2020
- All socio economic groups 54% by 2020
- Mature students 20% of FT by 2013
- Non Standard entry 30% by 2013
- Part time to reach 17% by 13
- Students with Disabilities to double

Participation by Socio Economic Groups



Spend on Education



Source:HEA

iEconomy

"What we need to do now is to place innovation at the heart of enterprise policy. Our future economic success depends on increasing levels of innovation across all aspects of irish enterprise – from large Irish owned multinationals to foreign multinationals located here to established SMEs in services and manufacturing as well as start-ups and existing companies with high growth potential"

Source: Innovation Taskforce

Innovation Ecosystem

① Entrepreneur and enterprise at centre of efforts
② Establishing, attracting, growing, transforming enterprises must be focus of coherent national effort
③ Availability of smart capital is crucial
④ **An education system which fosters independent thinking, creativity and innovation is vital to achieving the Smart Economy**
⑤ The State to provide infrastructure
⑥ Sharpen the focus of our national research system for economic advantage to Ireland

Source: Innovation Taskforce

Innovation Taskforce Recommendation

- The development of a national IP protocol as a priority, so that entrepreneurs and companies have predictability about the terms on which they can access IP created at Higher Education Institutions in order to turn it into products and services
- Meaningful metrics to measure performance of HEIs and Technology Transfer Offices should reflect this protocol and a portion of state funding for HEIs might be linked to these metrics

Source: Innovation Taskforce

Innovation Taskforce Recommendation

- Our future human capital is significantly shaped by our education system. Innovation and creativity must be promoted at all levels in the education system. In the HEI sector the delivery of scale and capacity through rationalisation, collaboration and new alliances

Source: Innovation Taskforce

Improving Human Capital
Higher Education

① Undertake excellent research, scholarship and teaching across all disciplines

② Develop strong research groups in areas of strategic priority

③ Strengthen the commercialisation function and generate economic value from the IP

④ Collaborate with and support entrepreneurs

Source: Innovation Taskforce

Cultivating Entrepreneurship in HEIs

- All HEIs should introduce initiatives to cultivate innovation and entrepreneurship at both undergraduate and postgraduate level
- SIF II ACE project led by DKIT

Source: Innovation Taskforce

Transferring Knowledge

- Place recent graduates in companies (Knowledge Transfer Partnership Programme in UK)
- Targeted work placement programme for STEM graduates
- Establish a national undergraduate internship programme with greater involvement from industry

Source: Innovation Taskforce

Transferring Knowledge

- Implement new suite of HR and performance management policies
- Full-time and part-time secondments to industry
- Staff on leave/sabbaticals not to be penalised in academic career
- Career advancement should value commercialisation work as well as research and teaching

Source: Innovation Taskforce

Transferring Knowledge

- Introduce a scheme to ensure greater access by industry to HEI specialist equipment and laboratories
- Increase the placement of “entrepreneurs in residence” into relevant R&D laboratories and centres of the HEIs

Source: Innovation Taskforce

Transferring Knowledge

- Establish a national office with knowledge of current research projects and access to all IP created throughout the HEI system and with mandate to bundle, market and facilitate speedy commercialisation of IP from HEIs in accordance with IP Protocol
- Provide through this office a single point of contact, for the entrepreneur, to all IP
- Ensure full support of the activities of this office by the HEIs/TTOs

Source: Innovation Taskforce

How successful is TT?

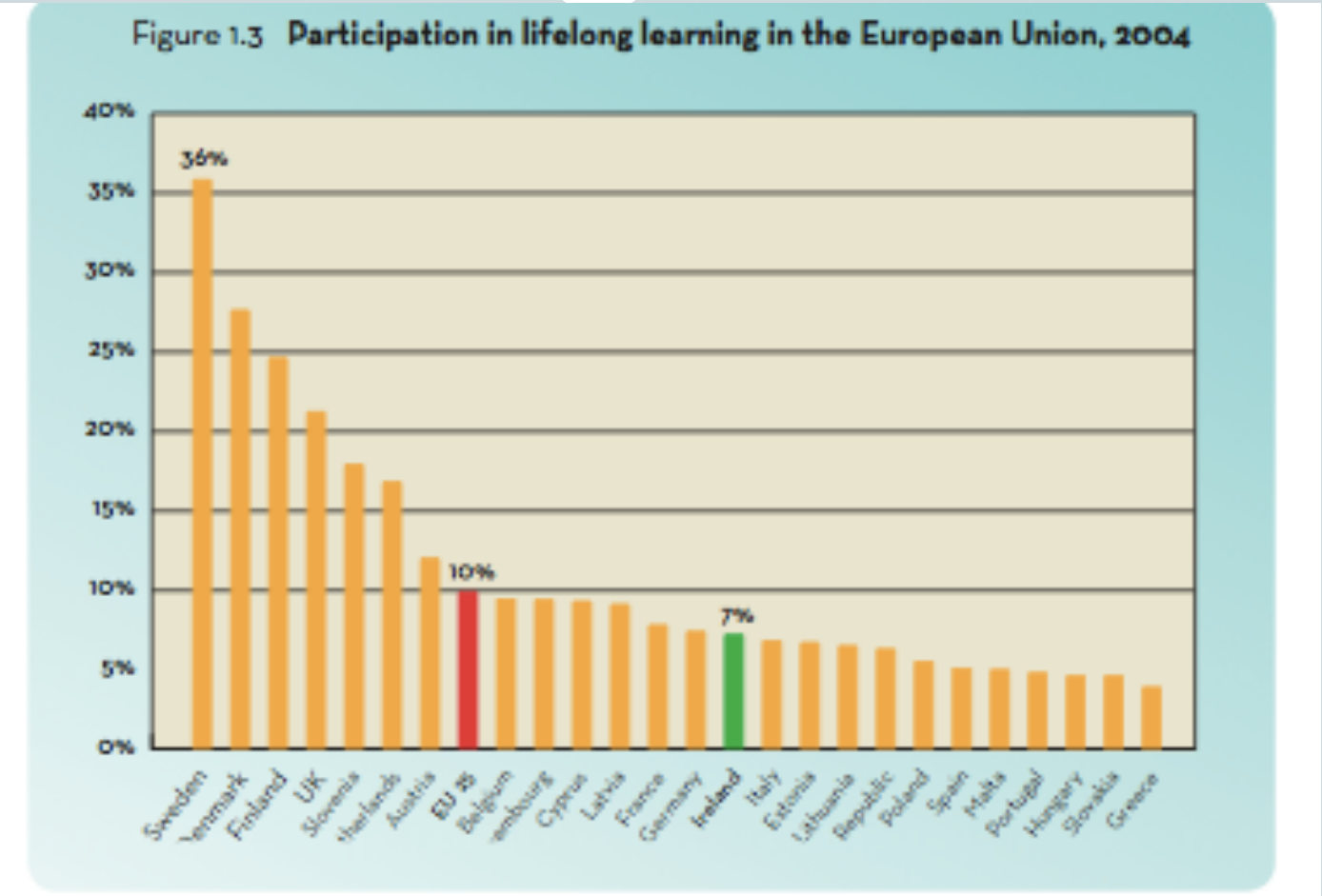
- In 2008 Stanford University's annual operating budget made up of 2% from licence royalties
- In 2008 MIT's income from royalties was only 4% of annual operating budget
- 40 years of equity disposals at Stanford was worth 9% on one years annual budget
- "secret is to couple insightful world-class research with deep knowledge of specific global markets"

Source: Chris Horn, Innovation, IT, April 2010

Lifelong Learning

- Learning throughout the lifecycle from childhood to retirement
- Ireland's participation rate is low (7%)
- Increasingly critical to a country's competitiveness
- In Ireland self funded
- Viewed by many Institutions as an aside/secondary activity
- More flexible learning models required
- More online learning required

Lifelong Learning



Source: HEA

Bluebrick Portal

Enterprise Support Units

- Research & Development and Technology Transfer
- Entrepreneurial Development Programme
- Incubation Facilities for Technology Based Businesses
- Applied Research
- Sectoral and Regional Development Initiatives
- Spearheading and Supporting EU and Cross Border Development Initiatives
- Networking with Agencies and Organisations

Enterprise Support Units
Applied Research for Industry

- FUSION Programme
- Innovation Partnerships
- Innovation Vouchers
- Encouraging Academics to Commercialise-early days: Finding the Market ?
- Managing Innovation -SMEs