

Higher Education System Performance 2014–2016

Second Report of the Higher Education Authority
to the Minister for Education and Skills
December 2016

HIGHER EDUCATION SYSTEM PERFORMANCE FRAMEWORK



PROGRESS ON 7 OBJECTIVES FROM 2011 TO 2015



Accountability for Public Funding

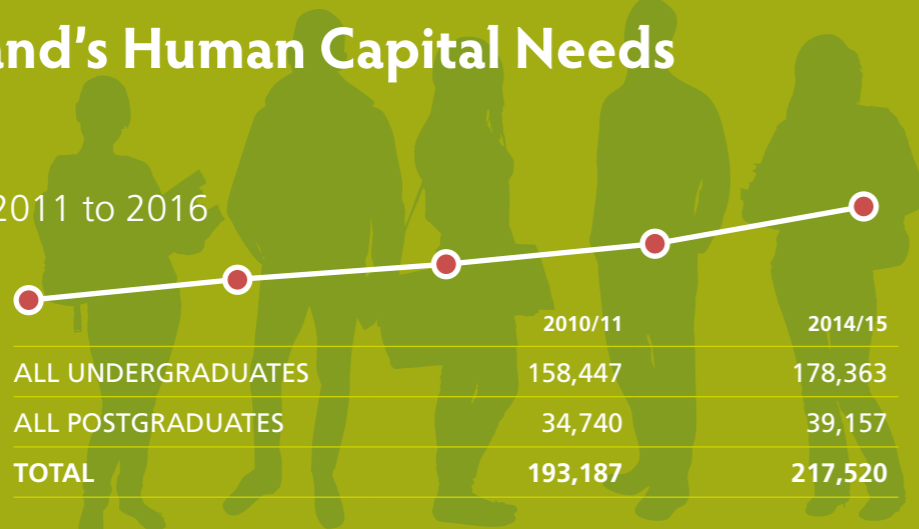


- National System Performance Framework Objectives
 - to ensure higher education meets societal needs
 - performance compact and strategic dialogue process enabling delivery of system objectives
- Improved and extended code of governance
- Shared services progress

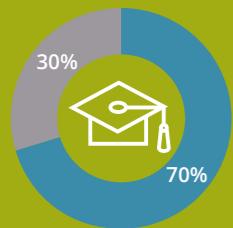
Meeting Ireland's Human Capital Needs

Student enrolments 2011 to 2016

13%
GROWTH OVER THE YEARS



Graduates 2014



Undergraduate	47,165
Postgraduate	19,790
TOTAL	66,955

STEM graduates trend 2011–2016

All undergraduate and postgraduate awards by STEM subjects, 2010–2014

	2010	2014	% change between 2010 & 2014
Science, mathematics and computing	3,497	4,623	32%
Technology	2,653	3,875	46%
Engineering, manufacturing and construction	6,258	6,092	-3%
Mathematics	386	649	68%
TOTAL	12,794	15,239	19%

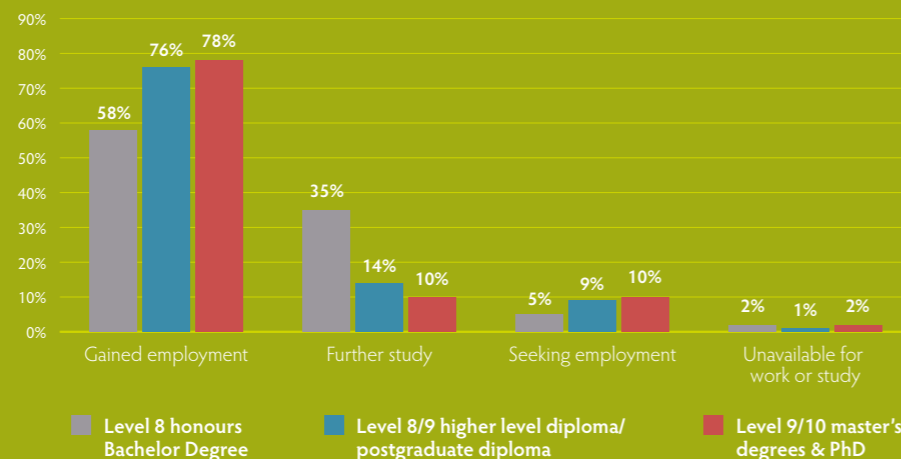
Salary differential

Difference in disposable income between third level non-degree and third level degree or higher

	2011	2014
Third level non-degree	26,254	26,051
Third level degree or higher	33,989	32,271
Difference	7,735	6,220

Graduate employability 2014

Overview of first destination of graduates by level of award 2014



Tertiary education attainment

by age group 30–34 trend 2000–2015

	EU 28	IRELAND
2000	-	27.5
2011	34.8	49.7
2015	38.7	52.3
TARGET	40	60

Equity of Access and Student Pathways

New entrants (Under-represented Groups)

	2011/12	2014/15	Projected 2016/17
New entrants	40,766	42,210	45,750
Mature entrants	5,693	5,063	6,097
Mature as % of new entrants	14%	12%	13%
Disability new entrants	2,166	3,347	3,203
Disability as % of new entrants*	N/A	11%	7%
Socio-economically disadvantaged new entrants	8,240	10,875	9,258
SEG as % of new entrants	20%	26%	20%

* All full-time students in receipt of the Fund for students with disabilities

Excellence in Teaching and Learning



Student survey
Student participation

ISSE 2014 **19,844**

ISSE 2015 **27,359**



Staff student ratios
Ratio of academic staff to students

2007/08	2011/12	2013/14	Projected 2016/17
1:15.6	1:19.0	1:19	20.6



Employer satisfaction
2014 Employers Survey
Overall satisfaction with HE graduates

72%
Workplace attributes

87%
Personal attributes



50,000 students completed a survey about their courses and learning experience in 2014 & 2015.

Overall satisfaction levels with their educational experience (as measured by quality of academic advice, entire education experience and whether they would attend the same institution again) are broadly similar for each cohort, with the highest satisfaction levels reported by first years.

→ Excellent Public Research System



10 IRISH RESEARCHERS
among the top 1% of highly cited researchers worldwide

10th



MOST HIGHLY CITED RESEARCH PUBLICATION OF ALL TIME

SOCIAL SCIENCE & HUMANITIES OUTPUTS FROM FOUR IRISH UNIVERSITIES RANK IN THE TOP 1% OF PUBLICATIONS WORLDWIDE



1st
in Europe in knowledge transfer performance of public research organisations



8,000

students on research programmes



32 prestigious ERC grants under Horizon 2020

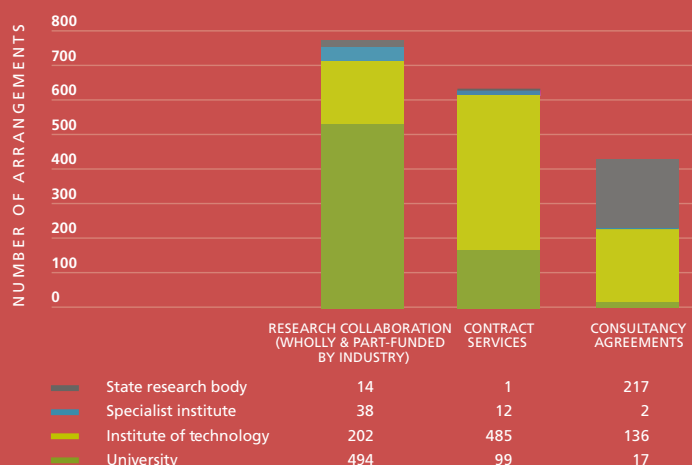
8th MOST INNOVATIVE COUNTRY IN THE WORLD

Ireland ranked 9th in the world overall in global scientific rankings

- 1st IN NANOSCIENCES & NANOTECHNOLOGY
- 1st IN IMMUNOLOGY
- 1st IN COMPUTER SCIENCE
- 3rd IN NEUROSCIENCES & BEHAVIOUR
- 6th IN MATERIALS SCIENCES
- 6th IN MOLECULAR BIOLOGY & GENETICS

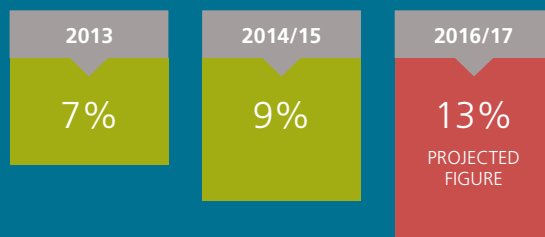
EI report data (KTI data)

Number of research, contract services and consultancy agreements in 2015 by RPO type



→ Globally Competitive and Internationally Oriented Institutions

Internationalisation of higher education
International students as a proportion



→ Restructuring for Quality & Diversity

15 ↓ 7

Landscape reform

The institute of technology sector is being restructured from 15 institutes to 7 as part of planned mergers to include technological university applications



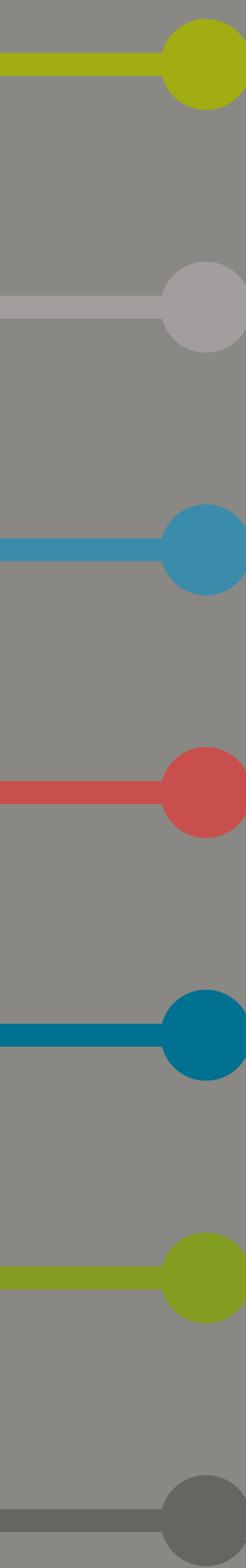
19 ↓ 6

Teacher education reform data

Initial teacher education is being restructured from 19 providers into 6 centres by 2017

Diversity within the system

Profile	Universities	Institutes of technology
Level 6 & 7 enrolments	5,172	33,777
Level 8 enrolments	75,947	40,810
Research students enrolments	8,020	1,913
% Postgraduate students (national share)	80%	20%
% Part-time undergraduate enrolments (national share)	31%	69%
% Part-time postgraduate enrolments (national share)	71%	29%



Higher Education System Performance

2014–2016

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PART 1

Overview and Context



Overview and Context

This report reviews the performance of the Irish higher education system for the years 2014 and 2015. It is the second system report prepared by the HEA and it sets out areas of ongoing progress and challenge within higher education. This report is set in a context of rapid change more widely in Irish society, and in particular the return of significant economic growth and the accompanying rapid decline in unemployment. More generally, higher education continues to evolve internationally, driven by ever-greater competition between institutions, developments in the wider geo-political environment, and a significant increase in investment in higher education globally. There is now a greater focus on institutional performance, with funding being allocated across jurisdictions on that basis.¹

The HEA is the Irish funding, regulatory and steering agency for higher education. The Minister has set out an overarching System Performance Framework for Higher Education for the period 2014–16². In that context, the HEA has radically changed the nature of its interaction with the higher education institutions, from a budget driven process to a broader approach encompassing funding but also objectives and outcomes, and has, through its funding model and strategic dialogue process, engaged with all HEIs to drive performance against that framework.

In this report, the HEA sets out the evidence of progress against that framework. This evidence shows a system that is performing strongly against many elements of the framework, described further below. However, there is also evidence of increasing risks around the sustainability of this performance. There is an evident decline in the quality of the capital stock arising from a reduction in investment in capital renewal and refurbishment. This, taken together with the decline in public current funding and the increases in student numbers creates risks for a series of policy objectives:

- Sustaining a high quality student experience and a high quality of the graduates emerging from the sector
- Broadening access to higher education for those from under-represented groups
- Enhancing research performance and its contribution to social and economic development
- Achieving a stable and sustainable financial basis for the higher education system.

Furthermore, if the higher education system were to suffer an adverse shock on foot of any of these risks materialising, it would likely have longer-term and broader reputational effects beyond Ireland, and thus damage individual institutions, the sector as a whole, and Ireland's reputation. This is a matter of acute concern for the HEA.

The HEA has sought to mitigate these risks through close financial supervision of the institutions, particularly those in a financially vulnerable position, and by requiring institutions to improve their capacity for strategic management and effective utilisation of their resources. The HEA has also strengthened the oversight process for governance of higher education institutions.

1 OECD, 2009. *Higher Education to 2030 – Volume 2: Globalisation* <www.oecd.org/edu/cei/44101074.pdf>.

2 Department of Education and Skills. *Higher Education System Performance Framework 2014–2016*.

However, some risks are outside the control of the HEA or the institutions, particularly those relating to the overall funding of the system and the management of national industrial relations issues. The HEA welcomes the commitment to refer the Expert Group report on the Future Funding of the Higher Education Sector (Cassells Report)³ for consideration by an Oireachtas committee and looks forward to timely decisions on the options set out in that report.

Highlights of system performance 2014–2015

As part of the strategic dialogue process the HEA can report on a range of successful outcomes delivered by the HE sector.

- Rising enrolments across the system, which reflects both increased student demand and increased demand from employers for high skilled graduates
- Ongoing widening of access to higher education from under-represented groups, such as those from socio-economically disadvantaged backgrounds and students with disabilities
- Evidence of ongoing improvement in teaching and learning across the system, with innovations such as the Irish Survey of Student Engagement (ISSE) and the National Employer Survey being used by institutions to review and improve the quality of the education being provided to students
- Ongoing improvement in research performance, as measured by citations of Irish research internationally
- Ongoing increase in the internationalisation of the system, particularly as measured by the intake of international students
- Far-reaching restructuring of the higher education landscape, with ongoing institutional merger projects designed to enhance the quality and sustainability of the education provided to students attending those institutions. Successful restructuring can be seen particularly in the process for reforming initial teacher education, and in the process for the development of technological universities
- Improved accountability of the system for public investment, through for example, this strategic dialogue process and the improved governance reviews introduced by the HEA.

Future directions

The context for further progress continues to be the System Performance Framework. In particular, the HEA is committed to continuing to enhance the accountability and performance of the sector. Particularly important in this regard is improving the accountability of the sector for how it uses its resources, ensuring that these resources are being used to best effect to maximise performance, and providing students and other stakeholders with confidence that the sector is delivering full impact through the efficient use of resources.

³ Department of Education and Skills, 2016. *Investing in national ambition: a strategy for funding higher education*. (Report of the Expert Group on Future Funding for Higher Education). <www.education.ie/en/Publications/Policy-Reports/Investing-in-National-Ambition-A-Strategy-for-Funding-Higher-Education.pdf>.



Executive Summary

System Objective 1: Meeting Ireland's Human Capital Needs

The higher education system continues to respond strongly to the challenge of meeting Ireland's human capital needs. While the economic recovery has created a strong and growing demand for graduate level employment, the higher education system continues to expand and enrol more students, and to provide an increasing supply of graduates for the labour market. Overall student numbers in the sector increased from 196,000 in 2011/12 to about 210,000 in 2014/15. In addition to this general growth, additional programmes have been put in place to address specific skills needs, through the Springboard+ programme and the ICT skills initiatives.

The performance of the system in meeting human capital needs is also strong by comparison with other European countries: Ireland has one of the highest rates of 30–34-year-olds with higher education attainment, and Ireland performs particularly strongly in terms of graduates with STEM qualifications when considered against fellow EU member countries.

Data from the CSO and the HEA's own data show that the investment in higher education produces strong outcomes both for the country and for individual graduates. Graduate level unemployment is low (6.5 per cent in 2014 v. 13.2 per cent for those without tertiary qualifications), while graduates continue to earn salaries that are considerably higher than those of non-graduates.

The outlook for future skills needs shows demand for higher education graduates from enterprise continuing to increase, along with growing demands from the increasing pool of school leavers. This creates an inevitable tension in terms of a long-term strategy for the funding of the system. The HEA will continue to support the expansion of the system. A key input will be decisions of Government on foot of the recently completed Cassells Report.

The HEA will continue to work to improve its data collection and analysis capability to help plan for future provision. Key elements here will be the development of an improved graduate outcomes survey, and engagement with the Department of Education & Skills, the Central Statistics Office, the Revenue Commissioners and the Department of Social Protection to see if it is possible to draw together more diverse data sources that could provide insights into graduate outcomes by institution, by discipline and over time. Such data would greatly enhance the ability of the HEA to undertake system level analysis of performance in higher education, but would also immeasurably strengthen the capacity of individual institutions to review and improve their own performance.

System Objective 2: Equity of Access and Student Pathways

Overall, equity of access for students to the higher education system continues to improve. In particular, the number and share of students from disadvantaged backgrounds and of students with a disability rose between 2012/13 and 2014/15 (from 22 per cent to 26 per cent and 7 per cent to 11 per cent respectively). In the case of mature students, the numbers and share are slightly lower, although this also reflects static levels of demand for access.

However, there remain marked disparities in terms of access to the system. (In Dublin alone participation rates vary between postal code regions from 16 per cent to 99 per cent⁴). Given the major benefits to the individual, the economy and society that can result from participation in higher education, the HEA is committed to continue seeking improved access into the future.

The third National Plan for Equity of Access to Higher Education 2015–2019, launched by the Minister for Education and Skills in December 2015, provides a framework for driving increased participation by target groups through targeted actions into the future to enhance equity of access.

System Objective 3: Excellence in Teaching and Learning

The main source of national data on teaching and learning – Irish Survey of Student Engagement (ISSE) – continues to show high levels of student satisfaction, with relatively little change in the findings between 2013 and 2014. This is welcome, particularly given the ongoing deterioration in the staff–student ratio, as staff numbers decline and student numbers continue to rise. This is accompanied by an ongoing process of curriculum reform under way in many higher education institutions aimed at enhancing the student experience and better preparing them for their life after graduation.

Rates of student drop-out continue to be low at a system level, with relatively little change since the last set of data. However, certain disciplinary areas remain a concern, such as Construction and Related Services, Computer Science, and Engineering, where the rates are above average. The HEA intends to engage specifically with all institutions in relation to their retention strategies during the next round of strategic dialogue.

The National Forum for the Enhancement of Teaching and Learning has continued to develop its role of supporting institutions in improving their teaching and learning, including initiatives in respect of ‘Teaching Heroes’, the new Digital Roadmap, and a framework for the career development of academic staff.

System Objective 4: Excellent Public Research System

The research system continues to perform well, as is evident from its outputs, measured by citations and also by measures of knowledge transfer in a broader sense. (Ireland ranked 1st in the EU Commission Knowledge Transfer Study in 2013.) The decline in research graduate output from 2009 to 2014 (see table 4.4) has been reversed, with some growth evident in 2014/15. There has been strong engagement by Irish institutions in European research programmes (some 63 per cent of total Irish research funding under the 7th Framework Programme was secured by the HE sector). While the major European research programme, Horizon 2020, is still at a relatively early stage of development, the record of Irish success to date is good.

4 HEA, 2015. *National Plan for Equity of Access to Higher Education 2015–2019*, Appendix A3.2.



However, the report also notes ongoing and emerging concerns. The level of investment in higher education research and development (HERD) shows a continuing decline, reflecting the competing need to address the significant increase in student enrolments while core funding has been reduced. The most recent data on citations also shows Irish citation levels declining in 2015. One year's evidence should not, however, be taken as a definitive finding – it may well be that this will reverse next year; equally institutions might be pursuing a policy of fewer outputs, but with a greater focus on publishing in particularly high-reputation journals. The HEA will, with other agencies, continue to review this position in the coming months.

System Objective 5: Globally Competitive and Internationally Oriented Institutions

The Irish higher education system has continued to create more and stronger international linkages, while also attracting a greater number of students to study in Ireland. In 2014/15, over 15,000 whole-time equivalent, full-time students in Irish HE were international – c. 11 per cent of full-time numbers, an increase from c. 7 per cent in 2012/13. While Ireland performs reasonably well in terms of some internationalisation metrics – particularly the attraction of foreign students – it is still below the OECD average and considerably below high performers such as Australia, the USA, the UK and New Zealand. Higher Education institutions will progress towards meeting the medium-term target for international students to represent 15 per cent of full-time students over the period of the new International Education Strategy for Ireland, 2016-2020 in a manner that reflects their individual situation and national needs.

A number of issues require further attention in this context. The risks inherent in internationalisation need to be identified and managed systemically by the institutions. An obvious risk, arising from the constrained resources within higher education more generally, is to put excessive focus on internationalisation as a revenue generation strategy. This would make the institution more vulnerable to sudden changes in international enrolments. On the other hand, inadequate attention to internationalisation could result in lost opportunities for enriching the international and local student experience through a more cosmopolitan learning environment, staff exchanges, research.

A further concern is the low number of Irish students who travel abroad as part of their higher education experience (2,501). The HEA notes that the EU has planned to increase the resources allocated to the Erasmus programme, and that this may lead to an increase in Irish students travelling abroad as part of their studies.

System Objective 6: Restructuring for Quality and Diversity

One of the most ambitious objectives of the System Performance Framework is an extensive restructuring of the higher education landscape, involving institutional mergers and new collaborative arrangements.

A range of initiatives are under way to transform the historic position with nineteen different providers of initial teacher education into six new centres of provision. By the end of 2014 there was clear evidence of good progress in delivering this strategy, although considerable work remains to be done. Full details are set out in the report.

In respect of technological universities, two consortia (Dublin and Munster) have progressed beyond Stage 3 of the process for designation. Both consortia have been assessed by an international expert panel appointed by the HEA and have been approved to proceed to Stage 4 of the process. Stage 4 requires consortia to meet the very robust performance and quality criteria that have been set down for merging institutes who wish to apply for the new technological university status.

Two other consortia (the South East and the Connacht–Ulster alliance) are also aiming for technological university status. The Connacht–Ulster consortia was approved by the Minister for Education and Skills to proceed to Stage 2 of the process for designation in October 2015; the South East consortium had already been approved to proceed to stage 2.

In addition to the merger projects, work is ongoing on greater inter-institutional collaboration, through regional clusters and skills fora, in order to enhance the ability of the institutions to respond to regional needs. Progress has been made in respect of academic planning and student pathways, although the extent of progress varied between clusters of institutions. Higher education institutions are also participating in the newly established regional skills fora, which will be responsible for bringing together higher and further education providers to better align education provision with skills needs.

The HEA continues to monitor overall system diversity. While there is considerable evidence of diversity between the sectors (i.e. universities and institutes of technology), there is less evidence of diversity within the sectors. The HEA will continue to engage with the institutions in strategic dialogue to encourage them to set their strategic priorities to focus on the areas where they can achieve excellence.

System Objective 7: Accountability for Public Funding

The public funding invested in higher education is delivering a strong performance against the Minister's policy framework. This performance is being achieved at a time of ongoing decline in funding per student. This decline is reflected in the audited accounts for the sector, which show a significant number of institutions running operational deficits. It is also reflected in the significant difficulties in the capital infrastructure of the sector, as very little public investment has been available in recent years for maintenance, upgrading of equipment, or new facilities.

This presents a dual challenge. Firstly, at a national level, there is a need to review the system of funding for higher education, and the ways in which regulation constrains the ability of the HEIs to raise more funding from commercial activity. Secondly at an institutional level there is a need to continue the focus on performance improvement within existing budgets and systems. In respect of this latter point, the HEA will engage with institutions to review the current approach to systems for workload management in the next cycle of strategic dialogue and to identify any further steps needed to enhance the effectiveness of the system.

The ongoing process of strategic dialogue is helping to clarify the outcomes being achieved in the sector on foot of their public funding. The introduction of a direct connection between institutional performance and funding in the second cycle of strategic dialogue has been a significant development, and the HEA will continue to use this lever for change, as appropriate, to encourage progress towards the performance objectives.





PART 2

System Objectives



System Objective 1

Meeting Ireland's
Human Capital Needs



Meeting Ireland's human capital needs, across the spectrum of skills, by engaged institutions, through a diverse mix of provision across the system and through both core funding and specifically targeted initiatives.

Policy context

The role of higher education in the creation of human capital and as a driver of economic development is well understood. This is particularly evident in Ireland where over the last 50 years ongoing economic development has benefited substantially from the development of a skilled workforce to support job creation as well as indigenous and foreign investment. This investment in human capital has also been fundamental to the strategy to support Ireland's recovery from the economic crash of recent years. Indeed, commentators have pointed out how a better educated population has enabled the recent recovery to be much faster than for example that from the recession of the later 1980s and early 1990s,⁵ while agencies such as IDA Ireland have stressed high levels of educational attainment as a key marketing point for Ireland abroad.

Higher education sector enrolments have continued to increase throughout the economic crisis and the sector has provided a range of opportunities for study and training for both school leavers and mature learners.

Numbers in the sector increased overall from 196,000 in 2011/12 to about 210,000 in 2014/15. Between 2011 and 2015, over 30,000 places have been filled on 1,000 courses through Springboard+,⁶ a programme that offers free courses at certificate, degree and master's level leading to qualifications in areas where there are employment opportunities in the economy.

It is also most welcome that national data shows that the labour market prospects for graduates are strong in income and employment terms. More focused surveys of recent graduate cohorts in the university sector are showing returns to pre-crisis levels of employment and a reduction in previously high levels of graduate migration.

Indicators relating to human capital needs (System Objective 1)

The indicators relating to System Objective 1 of the Higher Education System Performance Framework deal with three broad areas:

- Overall educational attainment and graduate output
- Alignment to the needs of the labour market
- Student outcomes following participation in higher education.

Progress in each of these areas is discussed below.

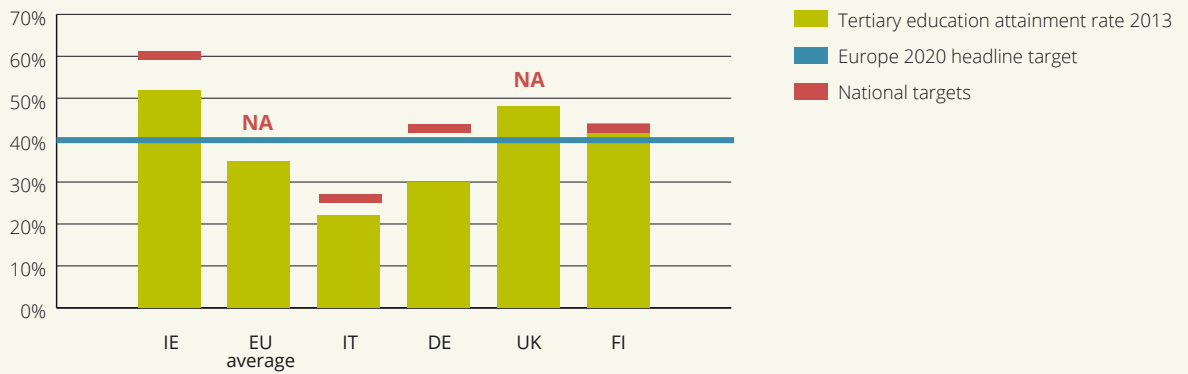
⁵ See for example John Fitzgerald, 2015. Education key to rapid fall in long-term jobless rate. *Irish Times*, 8 December 2015.

⁶ Springboard+ is managed by the Higher Education Authority and co-funded by the Irish Government and the European Social Fund as part of the ESF Programme for Employability, Inclusion and Learning 2014–2020.

Overall educational attainment and graduate output

International benchmarks show that Ireland continues to be a leading European country in overall educational attainment at tertiary level, and particularly so for younger cohorts of the population (see figures 1.1 and 1.2 below). This reflects both the strong demand for tertiary education in Ireland and the strong incentives that are built into the funding model to encourage institutions to seek higher enrolment numbers.

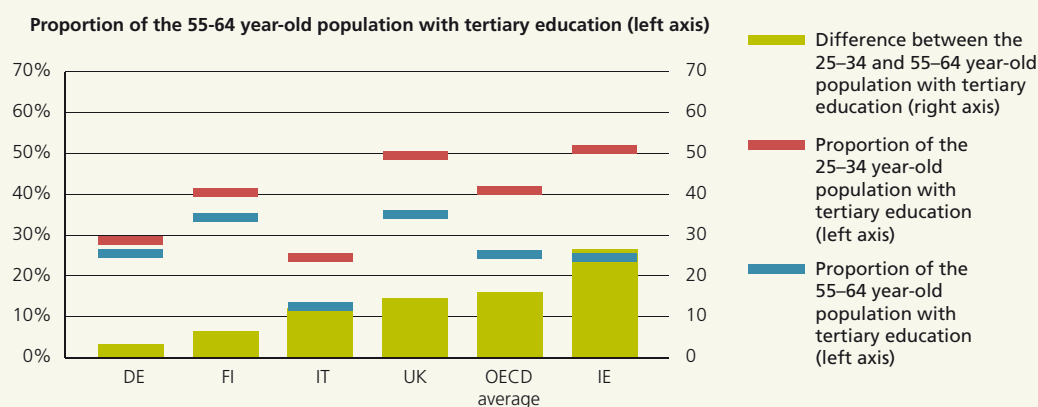
Figure 1.1 Tertiary education attainment (2013) and target levels (per cent) across Europe⁷



Source: Eurostat (LFS), European Commission Education and Training Monitor 2014.

⁷ Source: Eurostat (LFS). Online data code: t2020_41. Note: The indicator covers the share of the population aged 30–34 years having successfully completed ISCED level 5 or 6. Fig 2.2.1 from Taken from European Commission Education and Training Monitor 2014. <http://ec.europa.eu/education/library/publications/monitor14_en.pdf>.

Figure 1.2 Tertiary education attainment (5B and 5A and total tertiary) of adults aged 25–34 and 55–64 and percentage point difference between the groups⁸



Source: OECD, *Education at a Glance 2015*.

Graduate output has continued to increase since the publication of the *2014 System Performance Report*.⁹ Across the system, annual graduate output increased by 15 per cent between 2010 and 2014, from 58,222 to 66,655 graduates. The increasing number of entrants means that this upward trend will continue into the future.

Key Highlights 2014–15: educational attainment and graduate output

TERTIARY ATTAINMENT	<p>Tertiary attainment for the population stands at 41 per cent compared to the OECD average of 33 per cent¹⁰</p> <p>With a target of 60 per cent tertiary attainment among the 30–34 age group by 2020, Ireland has set itself the second highest EU2020 goal within the European Union, surpassing the headline target of 40 per cent. Ireland has been moving steadily towards this target from an initial 27.5 per cent in 2000 to 52.3 per cent in 2015.</p>
TOTAL GRADUATE OUTPUT	<p>Annual graduate output increased by 15 per cent between 2010 and 2014 from 58,222 to 66,655.</p>
PARTICIPATION OF SCHOOL LEAVERS	<p>In 2014 the participation rate of 18–20 year olds in higher education had risen to 56 per cent.</p>

⁸ Source: OECD (2015) *Education at a glance 2015: OECD Indicators* <http://www.oecd-ilibrary.org/education/education-at-a-glance-2015_eag-2015-en>.

⁹ HEA, 2014. *Higher education system performance report 2014–16*.

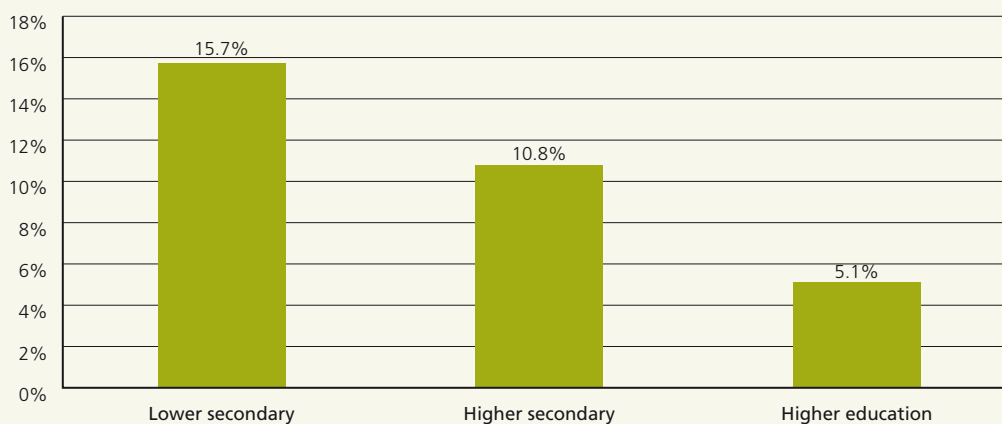
¹⁰ OECD, 2015. *Education at a glance 2015: OECD indicators*.

Alignment to the needs of the labour market

There is a critical need to ensure that the higher education system aligns well with national and regional labour market needs. The HEA uses a variety of means to test this, including a National Employer Survey and a review of graduate outcomes nine months after graduation.¹¹ In addition, the HEA also considers other information such as that collected by the CSO in its series of regular surveys and data collection. Overall, the data provides a positive message in relation to the alignment of higher education with labour market needs.

- The employer surveys convey a strong positive message on employers' satisfaction with the quality of graduates – consistently achieving around 70 per cent for workplace attributes, with higher levels of satisfaction exhibited by large and/or foreign-owned employer organisations. This provides important assurance in relation to the quality of the higher education system, as required by System Objective 3.
- The survey of graduate outcomes shows that unemployment rates among graduates have declined significantly to pre-crisis levels. This is complemented by CSO data which shows that graduates consistently enjoy higher rates of employment than those without tertiary education.

Figure 1.3 Unemployment rate (per cent) in Ireland by highest level of education, 2015



Source: CSO Quarterly National Household Survey (Q3 2015) as cited in HEA (2016)

¹¹ The review of graduate outcomes is currently rolled out in the university and college sectors, with plans for further roll-out to the institute of technology sector.

Key Highlights 2014–15: Alignment to the needs of the labour market

<p>EMPLOYER SATISFACTION RATES</p>	<p>The National Employer Survey results, published in 2015, show that overall satisfaction with higher education graduates' workplace attributes averaged 72 per cent and personal attributes 87 per cent. The satisfaction rates for personal and workplace attributes of graduates are particularly high among large and foreign-owned businesses.</p> <p>The survey results indicate that collaboration between education and industry is high, as reported by 72 per cent of all respondents. Of those employers that engage in collaboration, there is a high level of satisfaction (63 per cent). Work placements were the most popular form of collaboration.</p>
<p>STEM GRADUATE OUTPUT</p>	<p>In 2012, Ireland had the second highest level of maths, science and computing graduates aged 20–29 per 1,000 of the population in the EU, a level that was nearly double that of the United States.</p> <p>Eurostat data shows that in 2014, Ireland had the second highest percentage of students in tertiary education studying science, maths and computing in the EU – 16.7 per cent, compared to the EU-28 average of 11.4 per cent (Eurostat data¹²).</p> <p>There was a 59 per cent increase in ICT, natural science, maths and construction graduates from 2009 to 2014.</p> <p>Since 2012, ICT graduate numbers in particular have continued to increase (see SPOTLIGHT on page 22).</p>
<p>DEVELOPMENT OF REGIONAL SKILLS FORA</p>	<p>In 2015, the Department of Education and Skills commenced work on the establishment of nine Regional Skills Fora which saw all universities and institutes of technology working with the Education and Training Boards to enhance employer engagement on skills needs in each of the regions and to establish how these needs can best be met by the education and training providers. The Regional Skills Fora are now up and running and Regional Skills Forum Managers have been appointed – see www.regionalskills.ie.</p>

12 Cited in: National Competitiveness Council, 2015. *Ireland's Competitiveness Scorecard 2015*.



SPOTLIGHT: Responding to demand for ICT graduates

The higher education system as a whole has performed very strongly in recent years in graduate output from ICT related programmes.

- ➔ In 2012, (the most recent year with comparable data), Ireland had the second highest level of maths, science and computing graduates per 1,000 of the population aged 20–29 in the EU, a level that was nearly double that of the United States.
- ➔ In 2014, Ireland had the second highest percentage of students in tertiary education studying science, maths and computing in the EU – 16.7 per cent, compared to the EU-28 average of 11.4 per cent (Eurostat data¹³).
- ➔ The number of graduates from ICT-related programmes at levels 8 to 10 has increased from 2,362 in 2012 to 3,341 in 2014.
- ➔ Through Springboard+ and ICT conversion courses, more than 3,500 graduates achieved ICT qualifications at levels 6 to 9 in 2014 and 2015.
- ➔ While the proportion of first preference applications for level 8 computing courses has remained relatively stable over the past three years (2013–15), first preference applications for level 6 and level 7 computing courses has declined in that time (this level 6/7 decline is not unique to computing).
- ➔ Among honours bachelor degree graduates, computer science – ICT graduates are the highest earning, with 62 per cent earning €29,000 or more, nine months post-graduation¹⁴.

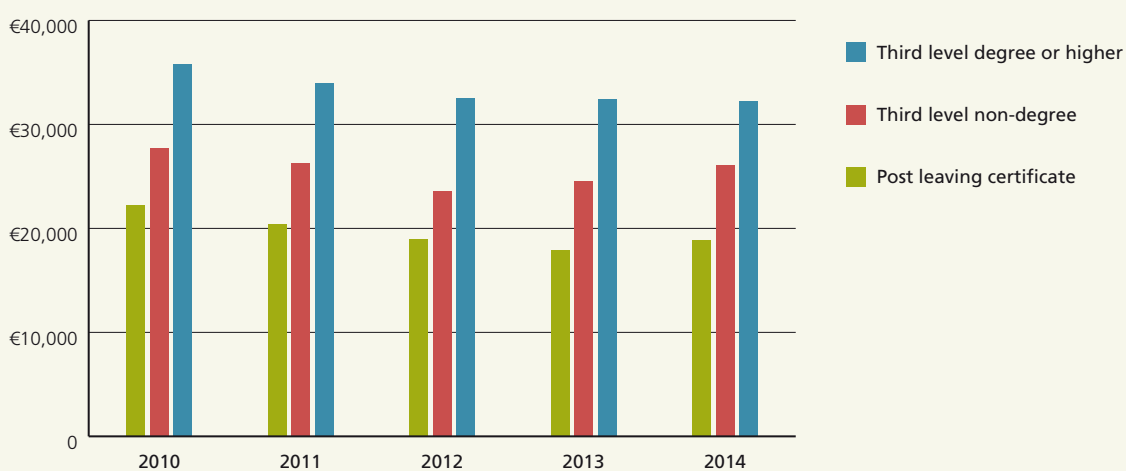
¹³ Eurostat, December 2015. *Tertiary education statistics*. Number of tertiary education students, 2013.

¹⁴ HEA, 2016. *What do graduates do? The class of 2014*.

Student outcomes from participation in higher education

The lower unemployment rates among graduates have already been cited, but there is also strong data showing that graduates earn more than those without higher education, as figure 1.4 shows.

Figure 1.4 Earnings compared: post Leaving Certificate, third level non-degree, third level degree or higher



Source: CSO, SILC data¹⁵

15 CSO, 2012. *National employment survey 2009 and 2010: supplementary analysis.*



Key Highlights 2014–15: Student outcomes from participation in higher education

<p>GRADUATE EMPLOYMENT TRENDS</p>	<p>The <i>First Destinations</i> report indicates that graduate employment levels have improved (particularly in Ireland) and fewer graduates are going overseas for work – 65 per cent of all graduates of universities and colleges of education are in employment nine months after graduation, and of those, 82 per cent are employed in Ireland.¹⁶</p> <p>Nationally, those with higher education were recorded as having unemployment rates of 6.5 per cent in 2015, compared to 13.2 per cent for those with secondary or post-secondary education only.¹⁷</p> <p>A survey of all Springboard+ graduates for the years 2011 to 2014 indicates that within two years of completing a Springboard+ course, 60 per cent of respondents are employed or self-employed, with progression to employment steadily increasing over time. Ninety-five per cent of respondents' jobs are in Ireland and 49 per cent are located outside Dublin. The quality of employment is also improving, with 85 per cent of respondents employed full-time and 62 per cent in managerial or professional roles.¹⁸</p>
<p>GRADUATE REMUNERATION</p>	<p>With higher educational attainment comes higher income: over half of honours bachelor degree graduates have an annual salary of €25,000 or more. This increases to 91 per cent for those with doctorates and 31 per cent of doctorate graduates earn over €45,000¹⁹ a year.</p>

Areas for future focus

Higher education will continue to play a central role in delivering on Ireland's human capital needs into the future. In its latest forecasts, the European Centre for the Development of Vocational Training (CEDEFOP) predicts that over half of all job opportunities in Ireland over the period to 2025 will require higher education qualifications. This will require a further expansion of the system – both for school leavers and for those who wish to engage in lifelong learning. (The low rate of participation among adult learners is discussed further in the chapter on System Objective 2). The Government's response to the *Report of the Expert Group on Future Funding for Higher Education* will be key to the higher education sector's ability to respond to the needs of society and the economy and to continue to increase student numbers without impacting on quality.

There is also a need for better skills intelligence and engagement between the higher education sector and employers in relation to future skills requirements. In the National Employer Survey (May 2015)²⁰, employers were asked how likely is it that there will be an adequate supply of graduates with the necessary skills needed to meet their organisations' need in the next three to five years.

16 HEA, 2016. *What do graduates do? The class of 2014*.

17 SOLAS, 2015. *Monitoring Ireland's skills supply: trends in education and training outputs*.

18 HEA, 2015. *Where is Springboard taking jobseekers? Employment outcomes 2011–2015*.

19 HEA, 2016. *What do graduates do? The class of 2014*.

20 HEA, DES, QQI, SOLAS, 2015. *National Employer Survey*.

More than a quarter of foreign employer organisations, and more than 40 per cent of their indigenous counterparts, expressed the view that there would not be an adequate supply.

Aside from the supply of graduates, employers were also surveyed on their views as to whether there were skills not currently available that are required now or in the next three to five years. Approximately 40 per cent of all employers indicated that this was the case. The areas most frequently cited as having skills gaps included engineering and technical specialisms, specific languages, business analytics, data analysis, software, IT and programming.

Further evidence of these skills gaps and a requirement for the higher education sector to increase participation in these areas (and in higher education more generally) is also provided in employer responses to the level of graduate recruitment from outside of Ireland. In their responses, employers indicated that 16 per cent of the total number of graduates recruited came from outside Ireland. Further, some 42 per cent of foreign organisations and 32 per cent of indigenous organisations indicated they were likely to recruit from outside Ireland. This in itself is not a negative feature – many companies have a policy of recruiting from both Ireland and abroad, particularly in sourcing native speakers of foreign languages. However, it is important to consider this in terms of risk management – it would not be desirable to move to a position where employers feel that a majority of future recruits have to be sourced abroad because of lack of supply in Ireland.

The implementation of actions in the *National Skills Strategy*²¹ including the further development and work of the Regional Skills Fora and higher education clusters, the planned entrepreneurship education policy statement and foreign languages in education strategy and implementation of the *ICT skills action plan*²² and ongoing engagement between higher education and employer interests will all contribute to addressing these issues in the coming years.

In ICT and STEM in particular, but not just in these areas, there is growing concern about the need for adequate resources to provide and maintain the environment necessary to support quality teaching and learning, and also the student experience and the ‘near to market’ technical familiarity that employers require. To be really effective, skills intensive programmes require significant laboratory time in high-quality space with up-to-date and market-relevant ICT and software.

In addition, further data is required on graduate outcomes to inform future planning and provision. The existing CSO data, while very helpful, is necessarily at a high level of aggregation, and covers all graduates. The HEA graduate outcomes data is, at present, restricted to the universities and colleges of education, and limited to a one-off survey of graduates nine months after graduation. The HEA plans two further initiatives in this area:

- From 2017, the HEA intends to finalise and put in place a new graduate survey across all institutions, to provide insights into the outcomes of all HEI graduates.
- The HEA intends to work with the Department of Education and Skills, the Central Statistics Office, the Revenue Commissioners and the Department of Social Protection to investigate whether it is possible to draw together more diverse data sources that could provide insights into the outcomes of graduates by institutions, by discipline and over time.

21 Department of Education and Skills, 2016. *Ireland's National Skills Strategy 2025*.

22 Department of Education and Skills and Department of Jobs, Enterprise and Innovation, 2014. *ICT Skills Action Plan*.



System Objective 2

Equity of Access and
Student Pathways



To promote access for disadvantaged groups and to put in place coherent pathways from second level education, from further education and other non-traditional entry.

Policy context

Since its establishment the HEA has maintained a focus on enhancing access to higher education for students from all backgrounds. In its funding model for the higher education institutions, the HEA specifically recognises and provides extra weighting to institutions in respect of their enrolment and retention of students from under-represented groups.²³ The third *National plan for equity of access 2015–2019* has recently been published and this sets out a framework of objectives and targets to steer work both nationally and institutionally to support increased access to higher education over the next five years.

The economic and social rationale for the continuing prioritisation of access remains strong and the HEA believes that the drivers for this policy are clear and unambiguous:

- Widening access offers students the ability to improve their life chances in terms of citizenship and economic security
- A highly educated workforce supports the attraction and retention of high-end jobs
- It taps into the skills and talents of groups who have not traditionally progressed to higher education and has a positive 'ripple' effect within families and communities
- It fosters the ongoing development of a more engaged, inclusive and secure society
- It better positions Ireland to cope with the ongoing change, both economic and social, that is a feature of modern life.

Indicators relating to equity of access and student pathways (System Objective 2)

The indicators relating to System Objective 2 of the Higher Education System Performance Framework deal with three broad areas:

- Diversity of entrants to higher education
- Progression rates achieved by specific target groups
- Type of enrolment.

Progress in each of these areas is discussed below.

²³ See the Recurrent Grant Allocation Models (RGAM) briefing note for a description of the funding model and provision made for underrepresented students. This is available on the HEA's institutional funding web page: <www.heai.ie/en/funding/institutional-funding>.

Diversity of entrants to higher education

Both the number of new entrant students with a disability and the number of students from socio-economically disadvantaged backgrounds are steadily growing as a share of the total number of new entrants into higher education. Of some concern, however, is the indication of some decline in the number of new entrant mature students.

Figure 2.1 Diversity indicators: new entrants with disability, socio-economically disadvantaged new entrants and full-time mature new entrants

	2011/12	2012/13	2013/14	2014/15
New entrants with disability	2,166	2,561	2,639	3,347
<i>as percentage of total new entrants</i>	N/A	7%	9%	11%
Socio-economically disadvantaged new entrants	8,240	9,147	10,325	10,875
<i>as percentage of new entrants</i>	20%	22%	25%	26%
Full-time mature new entrants	5,693	5,456	5,332	5,063
<i>as percentage of new entrants</i>	14%	13%	13%	12%
Total new entrants	40,766	41,324	41,814	42,210

The decline in the number of full-time mature new entrants is mirrored by a steady decline in the number of applications from this group under the CAO Applications system – from 16 per cent of the total in 2012 to 14.5 per cent in 2015.

By contrast, the numbers of part-time mature new entrants have been more variable, reaching a peak of c. 19,000 in 2012/13, declining to c. 16,500 in the following year and rising to c. 18,200 in 2014/2015.

The HEA believes that there is a continuing need to enhance the participation of mature students in the system. International benchmark data reveals Ireland is considerably below average international performance and far below leaders such as Sweden where the share of the working-age population in education and training is over 70 per cent.²⁴ From a wide range of policy perspectives, it is important to enhance mature student participation – these include policies relating to enabling individual development, to supporting a more inclusive society and to sustaining a competitive economy. This is addressed further as a part of the new National Plan – see pp. 31–2.

Flexible learning and progress from further education

Two related issues are the availability of flexible learning opportunities and student progression from further education qualifications, both of which can assist in mature student participation. Flexibility of provision to better suit learners' needs, particularly for those in employment, can enhance mature student learning. The data in this regard is again encouraging, showing steady increases in the number of flexible learners, though the pace of this increase slowed markedly in 2014.

²⁴ Eurostat, 2015. Adult learning statistics – characteristics of education and training; European Commission/EACEA/Eurydice, 2015. *Adult Education and Training in Europe: Widening Access to Learning Opportunities*. Eurydice Report.

Figure 2.2 Flexible learners and participants in Labour Market Activation

	2011/12	2012/13	2013/14	2014/15
Flexible learners (part-time and remote)	35,750	36,932	39,580	40,271
Participants in Labour Market Activation ²⁵	2,593	3,116	3,093	2,544

Source: HEA (2016)

There has been some levelling off in the increases in the numbers of students progressing from further education awards, both in the offers being made and acceptances of those offers.

Figure 2.3 Progression from further education

Year	Applicants	Offers	Acceptances
2012	15,288	7,132	3,065
2013	15,767	7,347	3,033
2014	15,544	7,256	3,143
2015	15,639	7,324	3,089

Source CAO data

One important initiative in this regard is the new pathways project being undertaken by DCU, Maynooth University, Athlone IT and Dundalk IT – see the case study on page 33.

Key Highlights 2014–2015: Diversity of entrants

STUDENTS FROM SOCIO-ECONOMICALLY DISADVANTAGED GROUPS	Steady growth in participation from 22 per cent in 2012/13 to 26 per cent in 2014/15.
STUDENTS WITH DISABILITY	Steady growth from 7 per cent in 2012/13 to 11 per cent in 2014/15.
MATURE ENTRANTS	Slight decline in participation from 13 per cent in 2012/13 to 12 per cent in 2014/15.

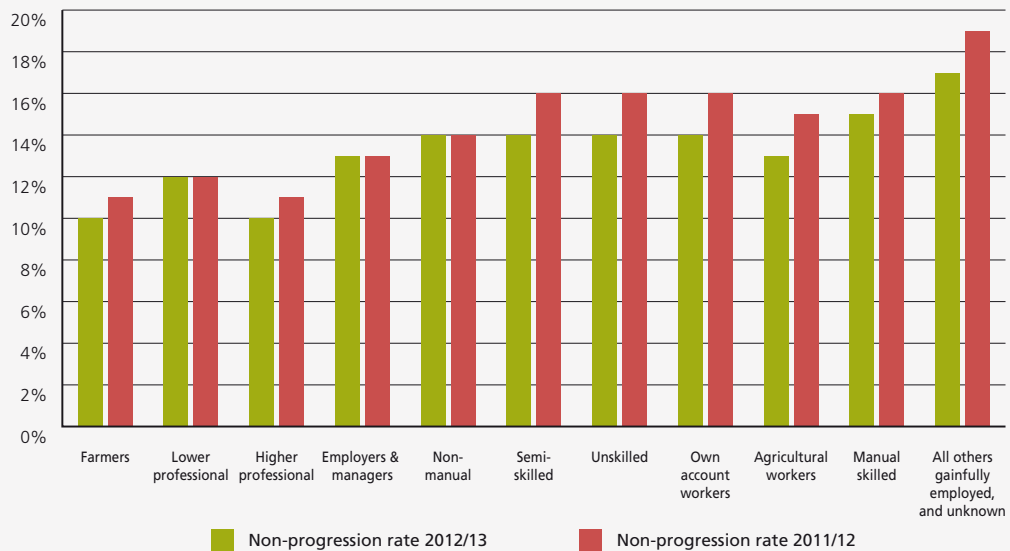
²⁵ This includes students who have entered through a government initiative to provide up-skilling training and support as identified by the institution's admission records. The cohort includes those participating in Springboard+ and Labour Market Activation undergraduate and postgraduate programmes.



Progression by target groups

In its ongoing reviews of levels of non-progression among students, the HEA looks at the different socio-economic backgrounds of students. There are marked differences in progression across the different socio-economic groups, as shown in figure 2.4. The data does, however, show relatively little change over the two years surveyed, although there is evidence of some improvement in progression among lower socio-economic groups. This issue needs further scrutiny and attention into the future.

Figure 2.4 A comparison of non-progression rates by socio-economic groups: 2011/12 v. 2012/13



Source: HEA, 2016. *A study of progression in Irish higher education 2012/13 to 2013/14.*

Of particular importance is the way institutions deal with non-progression – for example, bringing together issues like entry requirements, learning supports, programmatic reviews, and pastoral supports for students. Although some factors affecting non-progression fall outside of the remit of the HEA (such as the cost of accommodation), the HEA is aware of successful initiatives across many institutions. The challenge is to ensure that good practice in this area is disseminated and implemented across all institutions and disciplines, while allowing for the particular issues that do arise in each institution. This issue also relates to System Objective 3 – see page 35.

In future rounds of the strategic dialogue process, the HEA will request institutions that have particular issues around low completion either institutionally or by discipline, to report to the HEA on their plans and performance in this regard, and the HEA will in turn use this as a more structured basis for review of performance.

Key Highlights 2014–2015: Completion by target groups

NATIONAL DATA

Overall non-completion rates relatively constant between 2011/2012 and 2012/2013 – some evidence of decline in non-completion in some target groups.

Type of enrolment

The ratio of full-time to part-time enrolment in Ireland stands at 85:15, demonstrating a stronger bias towards full-time participation than the OECD or EU 21 average (both at 77:23).²⁶ It is markedly different from Scandinavian countries, where up to 45 per cent of participation in higher education is part-time.

The relatively low level of part-time participation is a concern. In their discussions with the HEA, agencies such as Enterprise Ireland have emphasised the importance of ongoing upskilling of the workforce as a means to drive productivity and competitiveness. The challenge for higher education is to provide more opportunities for upskilling, while also providing for the ever-increasing demand for more enrolments of full-time school leavers, reflecting Ireland's relatively young population. A combination of ongoing improvements in performance from the sector together with funding models that provide for the ongoing growth in demand from both school leavers and from mature students will be necessary.

Areas for future focus

The third *National Plan for Equity of Access to Higher Education 2015–2019* was launched by the Minister for Education and Skills in December 2015. This new, five-year plan was developed by the HEA with the Department of Education and Skills and following consultation with stakeholders from inside and outside the higher education sector. The *National Plan* forms part of an overarching policy for social inclusion in education being developed by the Department and will be implemented as part of the System Performance Framework for Higher Education.

Goals and objectives in the *National Plan*

The *National Plan* sets out the objectives, actions and indicators designed to address under-representation and to deliver the national participation targets for 2019. A steering group is in place to lead the implementation of the plan.

The following goals and objectives of the plan are particularly relevant to objective setting by the HEIs for their current and future institutional compacts.

²⁶ Source: OECD, 2015. *Education at a Glance 2015*.



System Objective 2 Equity of Access and Student Pathways [continued]

National Plan goal	Description
TO MAINSTREAM THE DELIVERY OF EQUITY OF ACCESS IN HEIs	<p>The overall objective of this goal is that the principle of equity of access needs to be integrated more fully into the everyday operations of HEIs and this will be supported by:</p> <ul style="list-style-type: none">■ The objectives of the <i>National Plan</i> being reflected in HEI access strategies and compacts■ Approaches to access being embedded across the HEI and down to faculty level■ Issues for students from target groups being addressed through mainstream services.
TO BUILD COHERENT PATHWAYS FROM FURTHER EDUCATION AND OTHER ENTRY ROUTES TO HIGHER EDUCATION	<p>The mapping of coherent pathways to higher education is one of the system performance priorities identified for 2014–2016 and progress on this is reported above in figure 2.3. The <i>National Plan</i> identifies the continued mapping and the development of pathways from further education and other routes to higher education as a key priority to 2019. Other actions related to these goals include:</p> <ul style="list-style-type: none">■ Extending supplementary admission routes to further education graduates from target groups■ The delivery of higher education access/foundation courses by HEIs in partnership with further education institutions■ The development of a national framework for the recognition of prior learning (RPL)■ Increased access to teaching as a profession, as well as the professional development of teachers are also priorities.
TO DEVELOP REGIONAL AND COMMUNITY PARTNERSHIP STRATEGIES FOR INCREASING ACCESS	<p>Analysis published in the <i>National Plan</i> shows how some communities continue to have significantly lower than average levels of participation in higher education – this is most starkly illustrated in the contrasting levels of participation in different Dublin postcodes. However, there are other areas in the country with similar patterns of participation. Over the course of the new plan, the goal is to develop more targeted, regionally based, partnership approaches to increase access to higher education from these communities. Among the actions to be progressed are:</p> <ul style="list-style-type: none">■ The establishment of local pilot initiatives targeting low participating communities■ The development of mentoring programmes for second level schools■ The implementation of civic engagement strategies as part of each HEI's compact.

CASE STUDY: Mapping pathways from further education to higher education

The Dublin Leinster II cluster (AIT, DCU, DKIT, MDI, MU, SPD) is collaborating with further education (FE) providers and mapping specialists at the All-Ireland Research Observatory (AIRO) at Maynooth University to develop an online portal to enable prospective applicants to further education and higher education to navigate effectively through the extensive range of courses/programmes provided within the cluster area. Data has been provided to AIRO by each of the HEIs and also by CAO, QQI and Qualifax. An interactive mapping platform is being developed by AIRO that will enable a prospective student to:

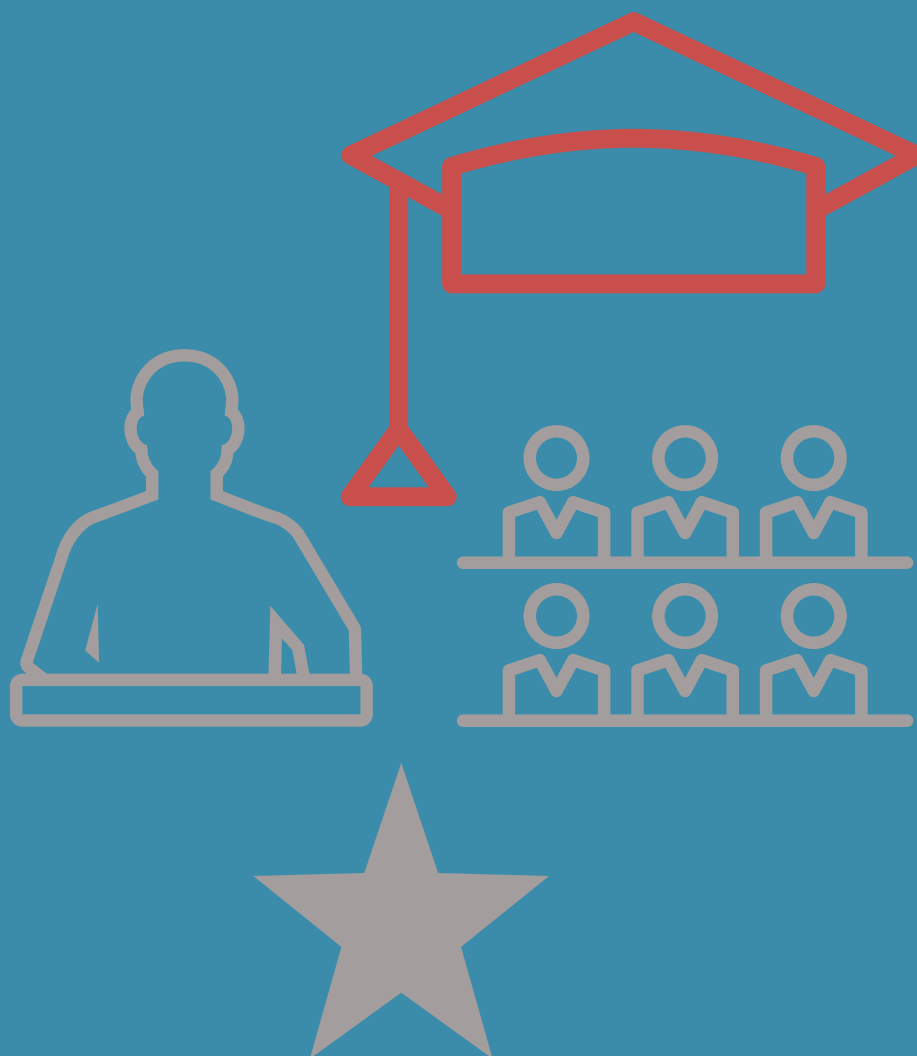
- Identify the pathways from FE to programmes provided by the HEIs
- Identify the entry requirements and modes of entry for courses/programmes provided by the HEIs for Leaving Certificate applicants, mature applicants and FE applicants
- Find the locations of relevant FE courses on a map, which will also show how each FE course links on to one or more HEI programmes.

While much of the information is currently on individual websites (for example, on those of CAO, QQI, Qualifax and of individual HEIs) the unique feature of this development is that it brings diverse but related information together on one site, creating a much enhanced research tool to help prospective and current learners to identify pathways. Each cluster partner nominated two staff members to work on the project, bringing together the skills and experience from Admissions and Access Offices as well as researchers and academics in the field. The project team collaborated with the stakeholders to ensure optimum design of the portal and to test its effectiveness in making it easier for prospective students to choose further education and higher education programmes.



System Objective 3

Excellence in
Teaching and Learning



To promote excellence in teaching, learning and assessment to underpin a high-quality student experience.

Policy context

The student experience must be at the heart of every higher education institution. A successful experience in higher education can and should be transformative for every student. As well as enhancing students' future labour market prospects, such a transformative experience should also enable students to become more active citizens in society, with likely consequent benefits to their families and the wider community.

A range of system level initiatives have been developed in recent years to assess the quality of teaching and learning across the sector and to support institutions and staff in the delivery of a high quality experience.

The National Forum for the Enhancement of Teaching and Learning, established in 2012, has become an important resource in establishing good practice and driving sector-wide initiatives aimed at underpinning and supporting high quality teaching and learning.

The National Student Survey was introduced in 2013 to capture student views on a range of issues relating to their experiences in higher education. The survey, which was developed on foot of similar initiatives in the US, the UK and Australia, is an increasingly important way to track student views, and to assess progress on performance enhancement. Encouragingly, the surveys to date show a relatively positive view overall, and individual institutions are now using the detail of the findings more and more to inform and complement their own quality enhancement processes.

There has also been a significant reform programme to enhance the transition between second level and higher education. In this context, the higher education sector has committed itself to renewed efforts to improve the first-year experience – including the development of broader entry routes to facilitate and improve the sometimes difficult transition from second level to higher education.

Ireland's higher education sector also has a well-established quality assurance system that meets the principles and standards set out in the European framework for qualifications in higher education.²⁷ The roles of the QQI and of individual institutions in implementing and improving that process is critical in enabling the HEA to undertake strategic dialogue with the institutions.

However, it must be recognised that there are continuing pressures on the delivery of excellent teaching and learning – as a result of growing student numbers and constraints in staffing. While only a proxy for quality, the student–staff ratio has deteriorated from 16:1 in 2008 to 20:1 in 2014 – when the EU and OECD average is 17.²⁸

²⁷ Bologna Working Group, 2005. *A framework for qualifications of the European higher education area*.

²⁸ Source: OECD, 2016. *Education at a Glance 2016*.



Indicators relating to excellence in teaching and learning (System Objective 3)

The indicators relating to System Objective 3 of the Higher Education System Performance Framework deal with three broad areas:

- Student experience and outcomes
- Quality enhancement initiatives
- Transitions to higher education.

Progress in each of these areas is discussed below.

Student experience and outcomes

The central aim of the Irish Survey of Student Engagement (ISSE) is ‘to collect information on student engagement in order to provide a more valuable and informed insight into students’ experiences than is possible from other information sources’.²⁹ The survey includes data across a range of academic and outcomes indices, and the findings are encouraging – particularly given the decline in the staff–student ratio over recent years (see Table 3.1).

Many of the indices show relatively little movement between the three years of survey (2013, 2014 and 2015). National-level analysis of outcome indices shows that students’ overall satisfaction levels with their educational experience (as measured by quality of academic advice, entire education experience and whether they would attend the same institution again) are broadly similar for each cohort, with the highest satisfaction levels reported by first-year students.

The 2014 and 2015 ISSEs also examined certain aspects of the views of students on particular survey questions in greater detail. Of particular interest are the findings in relation to work integrated learning. The surveys showed that by final year over half of all students reported that they have done or plan to do a work placement; and in 2014, 58 per cent of students reported that their experience had contributed towards their acquiring work-related skills or experience, and that they had explored how to apply learning in the workplace.

BENCHMARKING THE STUDENT EXPERIENCE INTERNATIONALLY

A key question for the HEA is to consider how well the student experience in Irish higher education rates in a comparative context. This is critical in considering a range of issues – how well our system uses its resources, how attractive it can be internationally, how up to date our institutions are in providing high-quality pedagogical and other supports that students expect.

There is no recognised means of measuring the full breadth of the student experience, and even if there were, there is no comparative international data with which it could be compared.

29 The Irish Survey of Student Engagement (ISSE) *Results from 2015* and The Irish Survey of Student Engagement (ISSE) *Results from 2014*.

BENCHMARKING THE STUDENT EXPERIENCE INTERNATIONALLY (CONTINUED)

However, there are some proxy measurements available. The ISSE survey captures data on a range of indicators of the student experience. The survey was also designed to provide some degree of comparability with surveys in Australia and the US. The 2014 report noted that in this context, 'in general, index scores reflect relatively well on the Irish higher education system',³⁰ although noting that given the relatively early stage of development of the ISSE further data is needed to build on this conclusion.

Other proxy measurements include the success of Irish graduates in finding employment, and their future labour market prospects, discussed in the chapter relating to System Objective 1, the relatively strong record of Irish HE in overall student retention, discussed later in this chapter and the attractiveness of Irish institutions to overseas students, which is discussed later in the chapter relating to System Objective 5. Taken together this presents a picture of relatively strong performance, albeit it with areas requiring further attention (for example, the issue of high rates of student drop-out in certain disciplines).

A particularly welcome development in this regard is the ongoing review of curricula being undertaken by many institutions. For example, the development of the extended campus in CIT (bringing CIT into the external environment through systematic engagement with employers), brings benefits both to companies who can tap into CIT's areas of expertise and support, but also to CIT students who can use the engagement in the form of enhanced work placement opportunities. In the university sector many universities have focused on developing and defining statements of graduate attributes which, irrespective of the particular course being studied, students can expect to develop over the course of their studies.

Staff–student ratios³¹

While the ratio of academic staff to students is a crude indicator, a number of elements of good practice in high quality teaching include pedagogies that allow active learning, prompt feedback, respect for diverse learning styles, and so on. And all of these, in turn, are directly related to the ratio of academic staff to students. While some of this deterioration in the staff–student ratio might be the result of initiatives to achieve greater efficiencies, it is reasonable to conclude that the departure of the staff student ratio from stable international norms will impact the quality of the student experience. This would be particularly true where it results in reduced laboratory time or practice-based teaching. In this context, the Cassells report noted 'institutions and students report an increase in class sizes, reduction in smaller tutorial groups, less one-on-one contact, project work, feedback and less time to accommodate diverse learning styles. This is impacting on teachers' abilities to identify and support at risk students'.³²

³⁰ Ibid.

³¹ Figures may differ from those published in the institutional and sectoral profiles arising from the application of a weighting of 0.5 (in the figures above) in relation to apprenticeship numbers as part of the WTE student numbers and the inclusion of non-Exchequer funding teaching posts (estimated) in the WTE core and academic staff numbers.

³² *Investing in national ambition: a strategy for funding higher education, report of the Expert Group on Future Funding for Higher Education, March 2016.*



As presented in table 3.1, staff–student ratios in the HEA-funded institutions have deteriorated significantly in recent years, rising from 1:15.6 in 2008, which was in line with the current OECD average,³³ to a ratio of 1:19.8 in 2013/14.

Table 3.1 Staff–student ratios, 2007/8 to 2013/14

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
WTE student numbers (full-time + part-time/2) ³⁴	158,057	164,180	173,723	177,329	179,105	181,308	185,760
WTE core staff numbers	19,500	19,411	18,524	18,321	17,899	17,604	17,771
WTE academic staff numbers	10,100	10,041	9,772	9,697	9,418	9,297	9,364
Ratio of academic staff to students	1:15.6	1:16.4	1:17.8	1:18.3	1:19.0	1:19.5	1:19.8

Student outcomes: progression data

In a recent report on progression in Irish higher education,³⁵ the HEA provides detail on the progression of students from their first year of study in 2012/13 to their second year of study in 2013/14. The report shows that 84 per cent of full-time undergraduate new entrants in 2012/13 progressed to their second year of study in 2013/14. It is also noteworthy that, despite the increases in student numbers and constrained resources, this level of progression has remained stable since 2007/08.

Non-progression rates varied across the sector ranging from 26 per cent and 28 per cent at Levels 6 and 7 respectively compared to 11 per cent, 17 per cent and 6 per cent at Level 8 in universities, institutes of technology and colleges respectively.

Of particular concern are the above average non-progression rates in the fields of construction and related areas, services, computer science and engineering. Computer science has the highest rate of non-progression at Level 8 but this varies greatly between universities (15 per cent) and institutes of technology (26 per cent) as well as between institutions.

As was the case in previous reports, females exhibit higher rates of progression than males across all levels, disciplines and sectors.

The report confirms that there is a significant relationship between prior educational attainment (based on CAO points) and progression rates. While the overall non-progression rate is 16 per cent, this rises to 34 per cent for students who obtained between 255 and 300 Leaving Certificate points.

33 OECD, 2015. *Education at a glance 2015: OECD indicators* D2.2 Ratio of students to teaching staff in educational institutions (2013 data).

34 For the purpose of these staff–student ratios, the whole-time equivalent (WTE) number is a combination of full-time staff numbers with part-time divided by two (i.e. 2 part-time = 1 full-time).

35 HEA, 2016. *A study of progression in Irish higher education 2012/13 to 2013/14*.

Key Highlights 2014–2015: Student experience and outcomes

STUDENT SURVEY OUTCOMES	<p>National-level analysis of outcome indices shows that students' overall satisfaction levels with their educational experience (as measured by quality of academic advice, their entire education experience and whether they would attend the same institution again) are broadly similar for each cohort, with the highest satisfaction levels reported by first-year students.</p> <p>Fifty-eight per cent of students reported that their work placement had contributed towards their acquiring work-related skills or experience, and that they had explored how to apply learning in the workplace.</p>
STUDENT PROGRESSION	<p>Eighty-four per cent of full-time undergraduate new entrants in 2012/13 progressed to their second year of study in 2013/14.</p>

Quality enhancement initiatives

National Forum for the Enhancement of Teaching and Learning in Higher Education

The National Forum for the Enhancement of Teaching and Learning in Higher Education was launched in 2012 as a system-level infrastructure to establish best practice and drive sector-wide initiatives aimed at underpinning and supporting high quality teaching and learning.

The National Forum aims to enhance the quality of the learning experience for all students within Irish higher education. Working in close partnership with the sector, as well as engaging with key stakeholders internationally, the National Forum seeks to nurture teaching excellence by building on and consolidating the wealth of innovation and good practice that has emerged across the sector in recent years. Since its establishment, the National Forum has made an important contribution to developing the evidence-base for the enhancement of teaching and learning. It has done this in a variety of ways, including:

- Supporting scholarship in the area and commissioning research
- Supporting open policy-making through sector-wide consultations
- Leading the development of the digital capacity of the sector – through support for national and inter-institutional projects in this area
- Recognising and rewarding teaching excellence, and stimulating engagement with pedagogical innovation
- Playing a leading role in supporting teaching-quality enhancement in Irish higher education – an endeavour to which the establishment of a professional development framework for those who teach will make an important contribution.



Key Highlights 2014–2015: Quality enhancement initiatives

NATIONAL FORUM	<p>A national higher education teaching awards scheme has been established.</p> <p>In December 2014, 53 teachers from 27 higher education institutions received Teaching Hero Awards determined by students.</p> <p>Over the course of 2014/15 the Forum engaged in widespread consultation to develop and publish its Digital Roadmap to guide institutions in the development of local and national digital strategies. In support of this, the Forum has funded 22 projects within the sector to enhance the building of digital capacity.</p> <p>In 2016 the Forum published the National Professional Development Framework for those who teach in Irish higher education. Existing provision is now being aligned to this new Framework.</p>
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Transitions to higher education

In its first system report two years ago, the HEA reported that trends in course offerings did not always reflect the stated commitment of HEIs to principles of improving the quality of the transition from second level to higher education through a reduction in the number of entry points to higher education. In fact, some institutions reported an increase in the number of courses being offered. In considering performance over 2014, progress remains mixed. There are some indications from the university sector that plans are in place to reduce the number of entry points, commencing in 2017. This, however, represents slow progress towards the overall objectives of enhancing the transition into higher education, helping students to make better choices, improving their chances of success, and reducing pressures on students at second level.

Some progress is also evident in the work on academic planning within some regional clusters, and this too can facilitate this objective into the future. However, overall progress on this issue is not satisfactory.

Areas for future focus

Student retention

While the data relating to retention shows that student progression figures are stable over time and comparable with other countries (where such comparisons are possible), there remain issues of concern to the HEA. As noted in relation to System Objective 2, the HEA will engage with institutions that have particular difficulties with lower than average rates of student progression and completion – placing this issue and the strategies needed to address it more centrally in the compact. It is particularly important for the HEA to be assured that these institutions take a systematic approach and draw on best practice in this area.

More generally, the HEA will continue to engage closely with SOLAS in the further development of a broader post second level spectrum of education and training opportunities for school leavers and mature students. This is an important part of the effort to improve retention levels, as there is considerable evidence to show that lack of preparedness for their courses is a major cause of non-completion by students.³⁶ For that reason, the development of pathways of learning through different institutions may have a contribution to make in helping to overcome this issue.

³⁶ See, for example: HEA, 2010. *A study of progression in Irish higher education*.

Academic planning/transitions

Because of concern at the pace of change in relation to enhancing students' transition into higher education, the HEA will request HEIs to report on their plans to reduce entry points into higher education in their 2016 return to the HEA and this will form a key element of strategic dialogue discussions.

CASE STUDY: strengthening the quality of teaching and learning – University of Limerick

System Objective 3 calls for the higher education system as a whole to improve performance in respect of the student experience. This is a broad-ranging objective, in a domain that is not easily reduced to simple metrics. There is no set curriculum that higher education institutions teach, no single set of national exams that are marked centrally. So, there is a need for more sophisticated ways of bringing together diverse data relating to the student experience, together with meaningful ways to enhance that experience.

The strategic dialogue process provided a number of examples of institutions seeking new ways to improve the student experience. A striking example is the approach being implemented by the University of Limerick. It has articulated its stance in Engaged Learning, the university's teaching, learning and assessment strategy, and in its compact with the HEA. The initiatives UL are taking include:

- Developing graduate attributes that set out for students and for prospective employers the knowledge, competencies and skills that a UL graduate can expect to develop over the course of his or her studies
- Working with the National Forum to prepare a full competency framework to ensure that its teaching staff are in a position to support students to develop the graduate attributes
- Drawing together evidence from different sources to identify any issues that inhibit effective learning. (Critically, this is first driven by students themselves, who are encouraged to provide their views of the quality of their learning at module, programme and institutional level. In this way, modules that return lower than average scores are identified for further examination.)
- Other measures such as teaching observation, where staff teaching is recorded and/or observed by a peer(s). Both student and peer observations are used to identify any further assistance that is needed to enhance teaching and learning quality
- Specific measures to assist staff in the development of their teaching skills, including generic programmes such as delivering *Broadening the Curriculum* modules, planning curriculum innovation around existing and new programmes, developing technology enhanced learning, and more specific programmes such as a Specialist Diploma in Teaching, Learning and Scholarship
- Planning for international benchmarking of its approach –for example, drawing on questions used to assess student satisfaction in similar reviews by universities in the UK.

The HEA is aware that other institutions are also progressing their use of data from the Irish Survey of Student Engagement (ISSE)³⁷ and other data in similar ways to UL. The HEA expects other institutions to take such approaches and expects to see these reflected across all institutional compacts in the next cycle of strategic dialogue.

37 HEA, November 2015, *The Irish Survey of Student Engagement (ISSE) Results from 2015*. <www.studentsurvey.ie/>.



System Objective 4

Excellent Public
Research System



To maintain an open and excellent public research system focused on the Government's priority areas and on the achievement of other societal objectives, and to maximise research collaborations and knowledge exchange between and among public and private sector research actors.

Policy context

Research activity within Irish higher education is built on two key Government policy platforms: the *National Strategy for Higher Education*³⁸ from which this system objective emanates and *Innovation 2020*.³⁹ The latter, published at the end of 2015, aims to move Ireland to a position of global innovation leader (defined as having an innovation performance of more than 20 per cent above the EU average) by 2020. The higher education system will continue to play a central role in this strategy's success – through its research capability and collaboration with enterprise, its international reputation, and its role in the education of Ireland's future researchers, entrepreneurs and innovators.

Critical connection between research and talent development

Ireland's research and innovation system can only be as good as the people that it can educate, train, attract and retain, and the role of higher education in this area is critical. The first progress report of the National Research Prioritisation Exercise made it clear that it regarded human capital as the single most important enabler⁴⁰ – essentially, it is people who will conduct the research, work in companies to drive performance, and create new and innovative companies.

Indicators relating to excellence in public research (System Objective 4)

The indicators relating to System Objective 4 of the Higher Education System Performance Framework deal with three broad areas:

- Investment in higher education research and development (HERD)
- Outcomes: higher education research outputs and performance
- Improving processes to sustain research quality.

Progress in each of these areas is discussed below.

38 Department of Education and Skills, 2011. *National strategy for higher education to 2030*.

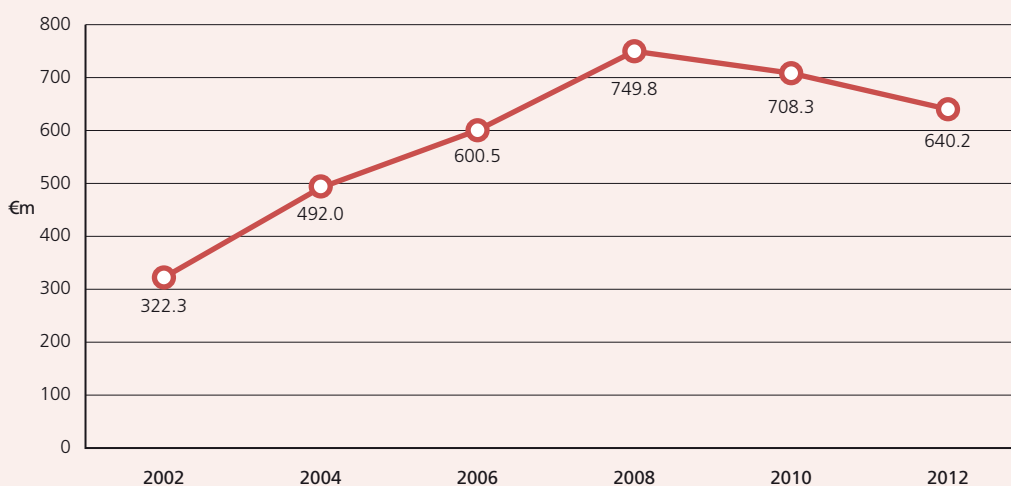
39 Interdepartmental Committee on Science, Technology and Innovation, 2015. *Innovation 2020: Ireland's strategy for research and development, science and technology*.

40 Forfás and Department of Jobs Enterprise and Innovation, 2014. *National research prioritisation exercise: first progress report*.

Investment in higher education research and development (HERD)

Total expenditure on R&D in the higher education sector in 2012 amounted to €640.2m. Investment in HERD more than doubled between 2002 and 2008, when it reached a peak of €749.8m. Since 2008 investment in HERD has declined by 14.6 per cent (c. €110m); and as a percentage of GNP, investment in HERD has fallen from 0.51 per cent 2010 to 0.45 per cent in 2012. Ireland's OECD ranking for investment in HERD as a percentage of GNP has fallen from 15th place in 2010 to 19th place in 2012 (out of 41 countries).

Figure 4.1 Summary of higher education expenditure on R&D (HERD), 2002–2012, current prices



Source: Department of Jobs, Enterprise and Innovation, 2015. Survey of research and development in the higher education sector 2012/2013.

Outcomes: higher education research outputs and performance

Key Highlights 2014–2015: Research Outputs and performance

EU RESEARCH PROGRAMMES	Irish HEIs accounted for c. 63 per cent of Irish draw-down of research funding from the Seventh Framework Programme – and have achieved a similar rate of draw-down to date under Horizon 2020.
KNOWLEDGE TRANSFER	Strong evidence of high performance across a range of knowledge performance metrics as measured by Knowledge Transfer Ireland.
RESEARCH GRADUATES	Decline in numbers of research graduates from 2009/10 to 2013/14 but renewed growth in 2014/15.
RESEARCH OUTCOMES	Strong record of increasing outputs and citation rates; however, most recent evidence suggests a decline in research outputs in 2015.

Higher education research performance

There is good evidence of Ireland's strong performance in research to date and, at international level, Irish higher education institutions are critical to Irish performance in Horizon 2020, the European Union's flagship research and innovation funding programme. Under its predecessor, the Seventh Framework Programme, Irish institutions secured 62.95 per cent of the €625m drawn down by Ireland. Under Horizon 2020, the higher education sector has won 62.4 per cent (€156.7m) of the €251m secured by Ireland to November 2015. This performance is in line with Ireland's targeted draw-down of €1.25bn from Horizon 2020 by the end of 2020. Increased participation by industry, foreign-owned as well as indigenous, will also help to ensure successful collaborations.

Under the Seventh Framework Programme, Irish participation at European Research Council (ERC) level showed an identified performance gap.⁴¹ ERC funding supports the top individual researchers to undertake cutting-edge frontier research across all fields and is often considered the most prestigious funding programme in Europe. This performance gap was remedied with targeted support from agencies including the Irish Research Council and Science Foundation Ireland, and Ireland's ERC success in Horizon 2020 is significantly better than under the Seventh Framework Programme. By November 2015, Ireland had secured ten awards (amounting to €34.7m) under the ERC's Starting Grant Scheme, placing it second in terms of its success rate for applications submitted.

Most recent E-CORDA data from the Department of Jobs, Enterprise & Innovation, utilising European Commission H2020 results up to the end of May 2016, suggests that Ireland's overall H2020 success rate stands at 14.2 per cent compared to a member state average of 13.3 per cent.

⁴¹ Department of Jobs Enterprise and Innovation, July 2016. Taken from key findings from the Technopolis evaluations of Ireland's participation in FP7 and Horizon 2020, as presented in Evaluation of Ireland's Participation in FP7 and Horizon 2020 – DJEI Summary Report.

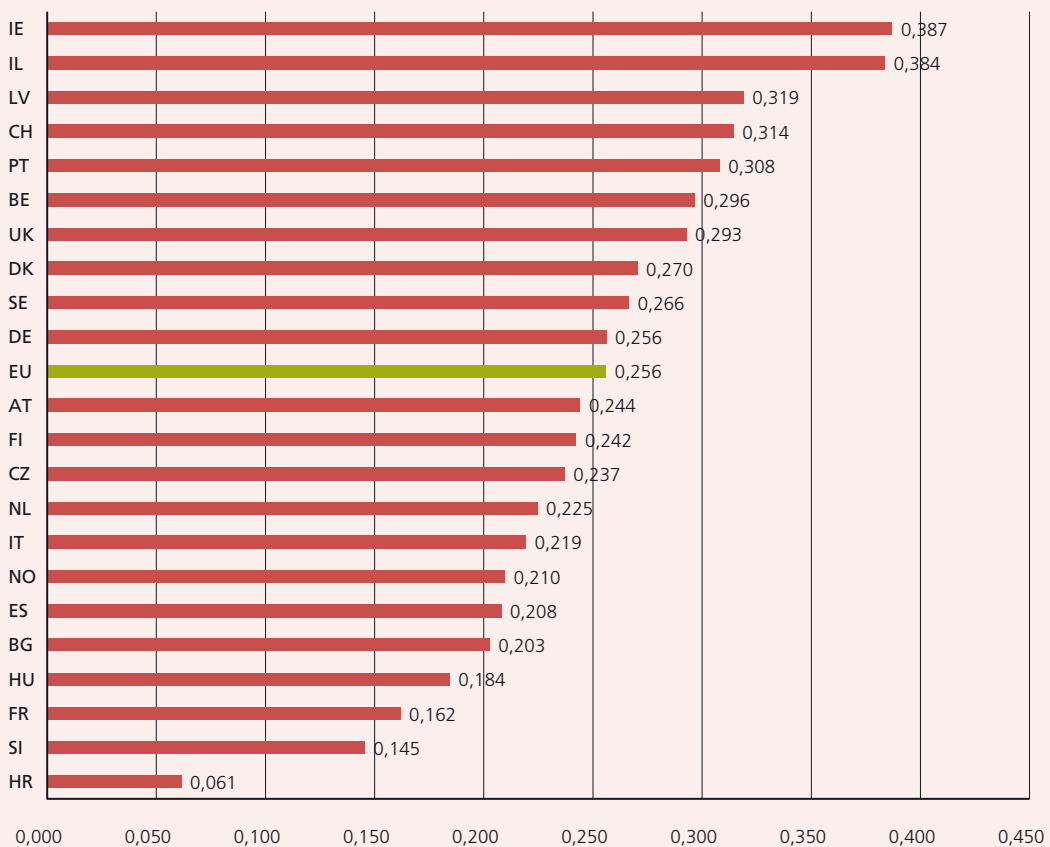


System Objective 4 Excellent Public Research System [continued]

Collaboration between higher education and enterprise plays an important part in the overall drive for national competitiveness. And by far the most critical contribution of higher education is the output of skilled graduates, who develop, sustain and enhance enterprise competitiveness. However, HEIs also collaborate with enterprises in many other ways, and a recent report from Knowledge Transfer Ireland (KTI)⁴² provides a range of data measuring the scale of collaboration and its impact on enterprise. In the foreword to this report, Enterprise Ireland's CEO Julie Sinnamon notes the 'positive trajectory of knowledge transfer activity in Ireland'.

Ireland also achieved a top-ranking performance in the European Commission's 2013 *Knowledge Transfer Study*,⁴³ which compared the performance of individual countries on the basis of an aggregate knowledge transfer – further evidence of the country's strong tradition in knowledge transfer.

Figure 4.2 Knowledge transfer composite indicator with equal weights, EKTIS 2011 and 2012 results combined



Source: MERIT, *European knowledge transfer indicator survey 2011 and 2012*, cited in European Commission, 2013. *Knowledge transfer study 2010–2012 final report*.

42 Knowledge Transfer Ireland, 2015. *Annual Report and Annual Knowledge Transfer Survey*.

43 European Commission, 2013. *Knowledge Transfer Study 2010–2012 Final Report*.

Local Irish data from the KTI annual report shows that a range of state funders are involved in supporting collaboration between enterprise and higher education – including Enterprise Ireland, Science Foundation Ireland and the Health Research Board. This collaboration is underpinned by HEA core funding to institutions. An important objective for the HEA, as part of its academic–enterprise engagement role will be to ensure the effectiveness of the supports and funding being provided. The HEA has already commenced discussions with EI with a view to identifying clearly the range of funding initiatives, their objectives and success, to ensure a coherent national approach and to focus resources for maximum benefit.

Delivering on identified research priorities

The higher education institutions have strongly engaged with the National Research Prioritisation Exercise (NRPE) and with the six broad themes for enterprise engagement in RDI indicated in *Innovation 2020*: ICT, manufacturing and materials, health and medical, food, energy, and service and business processes. Of the 27 centres that have secured competitive funding through the Enterprise Ireland/IDA Technology Centres and SFI Research Centres, 26 are based on higher education campuses.

Research for societal, cultural and policy development

There is also research under way in Irish higher education that, while not having an immediately economic impact, has strong societal value and should be recognised accordingly. In 2015, the Irish Research Council launched the Research for Policy and Society programme in partnership with Government departments and other agencies to fund research that supports societal, cultural and policy developments in Ireland. *Innovation 2020* recognises the cross-cutting approach needed to understand and resolve the global challenges that will affect Irish society and economy into the future.⁴⁴

Trends in research outputs

While much of the data relating to research presents a positive picture of performance, there are warning signs that this performance should not be taken for granted.

Ireland has been developing a high-quality research system from a very low base. Prior to the PRTL programme in 1998, there was minimal public funding for research in Irish higher education. However, there is a need to monitor closely the ongoing outcomes, particularly given the constraints on funding in recent years, and the potential for these to damage research performance.

The most recent review (2016) of available data (cumulative five-year averages) from Thomson Reuters InCites shows that:

- Ireland's **citation impact relative to the world** has continued to increase over the past five years, but the rate of increase is slower than that of the previous five years
- Ireland's **percentage share of world publications** has remained static since 2012. This is in contrast to previous years when Ireland's percentage share of world publications rose steadily
- Overall Ireland's **number of research publications** has continued to increase over the past five years, but the rate of increase varies from year to year and is slower overall from 2011 to 2015 compared with previous years. Of particular note is that if year-on-year data is reviewed (instead of a cumulative five-year average), it becomes clear that the level of output actually declined markedly between 2014 and 2015.

⁴⁴ Interdepartmental Committee on Science, Technology and Innovation, 2015. *Innovation 2020: Ireland's strategy for research and development, science and technology*, chapter 4.

Figure 4.3 Overview of knowledge transfer activities

In 2014...



Research agreements

1,930

new collaborative and contract agreements signed in 2014.



Research & consultancy agreements

2,337

new agreements (collaborative and contract research and consultancy) were signed with companies, representing a 46% increase from 2013.



Products on the market

30

new products were launched on the market in 2014 as the result of a licence from an RPO. This is consistent with the previous year's figure of 31 new products available for consumer or commercial use.



Licences/options/assignments (LOAS)

168

there was a continued increase in the number of LOAs signed to 168, up 21% from the previous year.



Businesses engaged in research agreements

1,371

the number of different companies RPOs worked with in collaborative or contract research programmes, which is a 46% increase over the previous year.

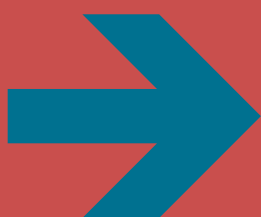


Consultancy agreements

407

the number recorded has dropped by 23% on the previous year to 407.

In 2015...



Collaborative research agreements

748

new collaborative agreements were signed representing a 16% increase on 2014.



Active research collaborations

1,235

live collaborative research programmes involving RPOs were under way at year end.



Products on the market

38

new products were launched on the market as the result of a licence from an RPO – a 27% increase on 2014.



Licences/options/agreements (LOAS)

206

LOAs were signed representing a continued increase of 23% on the previous year.



Contract service agreements

597

new contract services agreements were signed during the year.



Consultancy agreements

372

consultancy agreements were signed during the year.



Company location

67%

of companies working with RPOs on research agreements (contract and collaborative research) were based in Ireland.



Collaboration with Irish SMEs

92%

of research agreements (contract and collaborative research) with the SME sector were with Irish SMEs.



Collaboration with Irish MNCs

44%

of research agreements (contract and collaborative research) with the MNC sector were with Irish-based MNCs.



Spin-outs

27

new spin-out companies were formed, a drop of 27% on the previous year.



Priority patent applications

117

patent applications were filed, which is consistent with the previous year.



Invention disclosures

423

new invention disclosures, a decrease of 9% from 2013.



Active spin-outs

97

active spin-outs, thriving at least three years post-incorporation at the end of 2014, an increase of 21% on the number at the same time the previous year.



Incubator Facilities

755

companies incubated in HEI incubator facilities.



Company location

65%

of companies working with RPOs on collaborative research agreements were based in Ireland.



Collaboration with Irish SMEs

94%

of collaborative research agreements with the SME sector were with Irish SMEs.



Collaboration with Irish MNCs

13%

of collaborative research agreements with the MNC sector were with Irish-based MNCs.



Spin-outs

31

new spin-outs were formed, continuing an upward trend with an increase of 15% on the previous year.



Priority patent applications

118

patent applications were filed, a number consistent with that for the previous year.



Invention disclosures

465

new invention disclosures were filed, representing an increase of 10% on 2014.



Active spin-outs

110

active spin-outs were thriving at least three years post-incorporation at the end of the year, an increase of 13% on 2014.



Jobs in active spin-outs

930

jobs were created in active spin-out companies during the year.

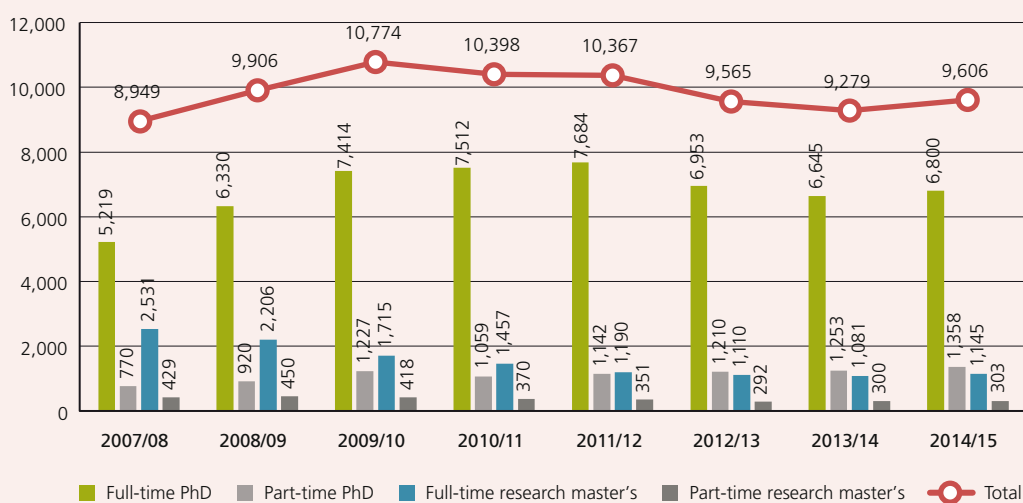
The HEA recognises the complexities involved in understanding this headline data. In particular, it is aware that volume alone is not a useful metric, and in some cases decline in volume of research outputs, can turn out to be positive if research achieves higher citation rates or is published in higher-quality journals.

The HEA will work with the institutions, and other research funders to consider this data in more detail and to plan appropriate strategies to address any challenges as they emerge.

Research graduate outcomes

A further issue of concern has been a worrying dip in research student enrolments – arising from factors such as reduced core funding, student finances and fewer staff being available for research supervision. The plans, subject to funding availability, under *Innovation 2020* to increase the number of research students by 30 per cent by 2020 are welcomed – including initiatives such as those led by the Irish Research Council. Such initiatives are all the more important in view of the goal to increase the number of researchers going into enterprise as set out in the *Action Plan for Jobs* (DJEI, 2016).

Table 4.4 Research enrolment trends 2007/08–2014/15: programme type and mode



Source: HEA data

Improving processes to sustain research quality

On foot of the *National Strategy for Higher Education to 2030*, the HEA and Quality and Qualifications Ireland (QQI) in partnership with the institutions have launched the National Framework for Doctoral Education, the purposes of which are to:

- Facilitate consistent excellence in the quality of postgraduate education and training
- Enable and encourage higher education institutions to work more closely in the delivery of an improved learner experience and outcome
- Maximise the employability of doctoral graduates across a broad range of employment sectors by ensuring that the acquisition of discipline-specific knowledge is complemented by the development of transferable skills
- Underpin the international standing of the Irish doctoral award.

To advance implementation of the Framework, QQI undertook a review of the quality assurance policies and procedures in place at the institutions for research degree programmes. This work was completed in 2016 and aims to establish a national code of practice for the quality assurance of Irish research degree programmes. It is therefore a key building block in the ongoing enhancement of early-stage researchers' development in Ireland.

Areas for future focus

Sustaining research quality and outcomes

As noted above, there is now growing evidence of risks to future research outcomes as highlighted by the decline in levels of investment in HERD, and the declines in research outputs from the latest Thomson Reuters review. During HEA consultations with other agencies in the preparation of this report, SFI noted their concerns in relation to the overall reduction in core funding in higher education, and the negative impact that this would have on research – as more staff resources are dedicated to teaching hours, and away from investment in research. The same core concern, though from a different perspective, was voiced by Enterprise Ireland who noted the need for higher education to enhance its performance in supporting near-market research.

The HEA recognises that the quantum of core funding available for higher education is being addressed separately through the Expert Group on Future Funding, but would highlight the risk to research outcomes of the status quo.

Supporting greater collaborations to enhance effectiveness

The HEA also notes the views of SFI that a number of measures could be taken to enhance system effectiveness, including:

- Coordination of relevant data to enhance future strategic recruitment of researchers
- Coordination of applications for major European research funding
- Collaboration with Knowledge Transfer Ireland to ensure that best known practice prevails in the commercialisation of knowledge outcomes.

The HEA will engage with SFI to put these proposals into practice.



System Objective 5

Globally Competitive
and Internationally
Oriented Institutions



To ensure that Ireland's higher education institutions will be globally competitive and internationally oriented, and Ireland will be a world-class centre of international education.

Policy context

Ireland's International education policy has set out a vision to 'support Ireland to become internationally recognised for the development of global citizens through our internationalised education system and a market leader in attracting international student talent'.⁴⁵ It seeks to support the development of global citizens through Ireland's high quality international education system, attract talent from around the world to our education institutions, and equip Irish learners with the skills and experience that they need to compete internationally. It also supports the outward mobility of academics, staff and students, in engagement in world-class research and international collaborations, and in addressing global challenges.

Ireland's performance in internationalisation continues to be strong. Overall, the students in Irish higher education institutions hail from some 130 countries around the world, and the Irish higher education sector has performed solidly in increasing numbers of collaborations in key markets, such as China, India, Brazil, the US and Saudi Arabia.

Within the national policy context of increasing domestic demand for higher education, which is expected to rise year on year until 2027, and of national targets for widening participation, it is agreed that the 'aspiration for international students to represent 15 per cent of full-time students remains challenging but valid' as a medium term goal over that period.⁴⁶

However, as already outlined in relation to System Objective 3 and affirmed in the new internationalisation strategy, it is essential that the system as a whole should not be excessively focused on increasing the number of international students (to generate income), and instead must take account of the broader opportunities that arise from internationalisation. This is not to dismiss the value of institutions broadening their funding bases, which is a necessary and appropriate strategy and indeed was an important recommendation of the *National Strategy*.⁴⁷ It is important, however, that this is achieved in a coherent and strategic manner, in line with institutional mission and capacity, taking account of broader regional and national priorities. It is also vital for the student experience and for the reputation of institutions that sufficient resources are invested in programme delivery and in supports for international students, and that they are not diverted predominantly to support other areas of institutional activity. International education is highly competitive and students are not likely to continue to attend institutions whose facilities and student supports do not match those available in other countries. Furthermore, there are risks to the sector as a whole as poor performance by any one institution could result in reputational damage to the system as a whole.

⁴⁵ Department of Education and Skills, 2016. *Irish educated, globally connected, an international education strategy for Ireland 2016–2020*.

⁴⁶ *Ibid.* p.31

⁴⁷ Department of Education and Skills, 2011. *National Strategy for Higher Education to 2030*.



System Objective 5 Globally Competitive and Internationally Oriented Institutions [continued]

A related issue is that of mission diversity. The *National Strategy* made clear that 'higher education will accommodate a diversity of institutional missions that will be clearly articulated and defined. Together, the institutions will form a coherent and inter-related system', ensuring that the national ambition 'to create a coherent system of differentiated but complementary institutions' dovetails with the internationalisation agenda. Institutions should play to their unique strengths on the global stage while at the same time working in partnership at regional level (through the emerging regional clusters) to develop regional strategies to underpin engagement in different regions of the world.

Institutions that will succeed in international education in the long term are those that have a realistic international vision that is relevant to their overall mission, a clear proposition, commitment at all levels, and appropriate investment and support structures.

Indicators relating to globally competitive and internationally oriented institutions (System Objective 5)

The indicators relating to System Objective 5 of the Higher Education System Performance Framework deal with four broad areas:

- Outward mobility of Irish students
- Inward mobility of students from other countries coming to Ireland
- International mobility of staff
- Transnational activities of Irish higher education institutions.

Progress in each of these areas is discussed below.

Outward mobility of Irish students

The number of students from Irish institutions who undertook outgoing mobility opportunities in 2014/2015 was 2,501, 73 per cent of whom (1,835) were Erasmus+ students. The Erasmus+ figure is complemented by less substantial numbers undertaking bilateral for-credit courses in countries such as the US, Canada, Australia and China. Given that the annual number of level 8 graduates stands at around 28,000, those choosing to travel represent about 9 per cent of the graduate cohort, still some way below the target rate of 20 per cent.⁴⁸ According to the European Commission, the number of students from Ireland involved in the Erasmus+ study abroad programme is in line with the European average.⁴⁹

An important future development is the increase in the funding (approximately 10 per cent over the period 2017 to 2020) that is being made available at European level to support Erasmus visits. This increase will enable an increase in the number of Irish students travelling under the programme.

⁴⁸ The 20 per cent target allows for the inclusion of Irish students taking full degree programmes outside of the country as well as anyone earning the equivalent of 1 credit.

⁴⁹ Erasmus students as proportion of graduates in 2012 (in %), taken from: European Commission, 2014. *Erasmus: facts, figures and trends*.

Key Highlights 2014–2015: Outward mobility of Irish students

NUMBERS OF STUDENTS STUDYING ABROAD

In 2014/2015 the number of students in Irish institutions who undertook outgoing mobility opportunities was 2,501, 73 per cent of whom (1,835) were Erasmus+ students, in line with the European average.

As the number of level 8 graduates stands at around 28,000, those choosing to travel represent about 9 per cent of the graduate cohort, some way below the target rate of 20 per cent.

Inward mobility of students from other countries coming to Ireland

The HEA monitors the uptake of places in Irish higher education institutions by international students and measures this against national inward mobility targets. In 2014/15, c. 9 per cent of all whole-time equivalent full-time students (15,095) in the HEA-funded higher education institutions were international students. Of these, 2,097 were undertaking advanced research (1,943 PhD students and 154 research masters' students) and 2,989 were enrolled on taught postgraduate programmes. In addition, in the same year there were 10,055 incoming exchange students, 48 per cent of whom (4,900) were Erasmus+ students.

The aggregate projections of the institutions suggest that growth will be maintained or increased, and that international students will account for about 13 per cent of total students by 2016/17. These figures are projections, however, and may change.

The System Performance Framework also sets objectives for the make-up of the international student cohort attending Irish higher education, with a focus on certain specific markets (US, China, India and the Middle East.) In 2014, the proportion from those markets stood at 40 per cent, slightly down from the 45 per cent reported in 2012/13. The recently published international education strategy, *Irish educated, globally connected*, an international education strategy for Ireland 2016–2020, proposes a more nuanced approach to internationalisation beyond the recruitment of fee-paying foreign students. The new strategy suggests that an appropriate approach may include, among other things, consideration of the part internationalisation plays in:

- Enhanced teaching and learning – providing students with the international and intercultural expertise demanded in the global economy
- Professional development of staff – international peer review, benchmarking and the opportunity to develop careers or disciplines outside the home institution
- Internationalising curricula – providing students with global perspectives on a discipline or an opportunity to learn in a diverse cultural environment
- Collaborative teaching – working with partners to increase learning opportunities for students through the provision of 'flying faculty', overseas campuses, formal credit recognition, joint awards or articulation routes
- Joint research – developing mutually beneficial partnerships with globally ranked and respected institutions overseas.



System Objective 5 Globally Competitive and Internationally Oriented Institutions [continued]

International benchmarks

OECD data for Ireland indicates that international student enrolment in 2013 stood at 6 per cent of total enrolment. This places Ireland below the OECD average⁵⁰ of 9 per cent and well behind some significant performers like Australia, New Zealand, the UK and the US. However, the more up-to-date figures in the HEA database indicate that international student enrolment has grown significantly faster than national enrolments, leading to a jump in participation to about 9 per cent by 2014/15.

Key Highlights 2014–2015: Inward mobility of international students into Ireland

INWARD MOBILITY

In 2014/15, circa 9 per cent of all whole-time equivalent full-time students (15,095) in HEA-funded higher education institutions were international students. Of these, 2,097 were undertaking advanced research (1,943 PhD students and 154 research masters's students) and 2,989 were enrolled on taught postgraduate programmes. In addition, in the same year there were 10,055 incoming exchange-students, 48 per cent of whom (4,900) were Erasmus students.

Government target: international students to represent 15 per cent of full-time students by 2020.

International mobility of staff

The international mobility of academic staff and researchers is an essential element in the creation of a truly international campus. HEIs should actively promote outward and inward mobility of staff and researchers to both EU and non-EU programme and partner countries. In the absence of such external stimuli, the Irish higher education sector would be in danger of becoming insular, complacent and non-competitive.

The HEA does not currently have accurate up-to-date data on international mobility of academic and research staff. It does, however, plan to develop a comprehensive staff database, which will provide a basis for measurement of change in this area.

So, for the moment, HEA data on international mobility of staff is limited and partial. For example, it is known that the Erasmus+ programme, which also provides scope for mobility of HEI staff to other European and non-European countries, facilitates about 300 staff to travel to other countries for short periods. Separately, the HEA is aware that a large number of academic staff work in the US – the 2015 Open Doors census on US international higher education reported 514 staff of Irish origin working in US higher education in 2013/14.⁵¹

50 OECD, 2015. *Education at a glance 2015: OECD indicator C4, distribution of foreign students in tertiary education, by country of destination* (2012).

51 Institute of International Education, 2015. *Open doors, report on international educational exchange*.

Transnational activity of Irish higher education institutions

The growth in transnational activity by Irish higher education institutions has been a major trend over the past decade, with the proliferation of joint programmes between Irish institutions and those in other countries, the delivery of programmes overseas, and the establishment by Irish institutions (RCSI and UCD) of branch campuses abroad. The British Council has identified Ireland as one of the top ten partner countries for co-operative education programmes in China.⁵²

There were 2,628 students registered on programmes in Irish campuses overseas in 2014/15, which is short of the target of 4,500 set in *Ireland's International Education Strategy 2010–2015*. The target, however, remains valid for the period to 2020. In addition, the further development of online programmes by Irish higher education institutions will represent another important strand of our transnational higher education provision in the years ahead.

The HEA will continue to update its information in this area and will engage further with institutions who are considering expanding their transnational activity or embarking on new transnational initiatives.

Key Highlights 2014–2015: Transnational activity

TRANSNATIONAL ACTIVITY

In 2014/15, 2,628 students were registered on programmes in Irish campuses overseas, short of the 4,500 target set in *Ireland's International Education Strategy 2010–2015*. The target, however, remains valid for the period to 2020.

Areas for future focus

The HEA will continue to steer the higher education system towards the achievement of national objectives in respect of internationalisation, with a particular focus on sustainable, coherent activities by institutions, but with due regard for the risks involved in internationalisation.

The recent publication of a new strategy on internationalisation by the Minister for Education & Skills will assist in further refining goals and objectives.

⁵² British Council, 2013. *The shape of things to come*.



CASE STUDY: Science without borders – internationalisation of higher education in Ireland

There have been particular success stories in the internationalisation of Irish higher education. For example, the bilateral relationship with Brazil has seen approximately 3,500 undergraduate and 135 PhD students travel to Ireland and study in one of the 25 participating Irish HEIs – as part of a Brazilian initiative to foster study abroad by their students. Undergraduate students were initially engaged in one academic year's study (September to May) although nearly half further extended their period of stay for either research or enterprise-based internships in Ireland over the summer months.

The initiative was marked by very strong and positive feedback from Brazilian students, feedback which contributed to steadily growing numbers of Brazilian students choosing to study in Ireland.

The initiative is also unique, because of its scale. Launched in 2011, the initiative is a large-scale national scholarship programme, primarily funded by the Brazilian federal government. The programme seeks to strengthen and expand the initiatives of science and technology, innovation and competitiveness through international mobility of undergraduate and graduate students and researchers. It has recently reached its target to support the mobility of 101,000 Brazilian students between 2011 and 2015. A total of 30 countries participated with Brazil in the scheme.

Ireland has performed particularly strongly given its size relative to other destinations participating in this scheme and the fact that the programme was in its second year (2012) when Ireland became involved. In absolute terms, Ireland ranks as the ninth most attractive destination (fourth in Europe) out of the 30 participating; while, in per capita terms, Ireland is the most attractive destination.

The experience also demonstrates other important lessons in internationalisation. A very positive feature was the strong cooperation between both Brazilian and Irish state entities – on the Irish side, this includes the Department of Foreign Affairs and the embassy network, Enterprise Ireland and the HEA, together with the institutions themselves. Such cooperation facilitated both the introduction and ongoing management of the programme. It will be important to sustain this to further the aims of the internationalisation strategy.

The Brazilian programme also highlights the inevitable risks involved in internationalisation. Despite the programme success in terms of student demand and student experiences, economic difficulties in Brazil have led to the programme being paused, and accordingly a very significant income flow to the sector and the economy more generally will end. This points again to the need for internationalisation strategies to be risk-proofed, to protect the institutions and the system in the event of such external shocks.



System Objective 6

Restructuring for
Quality and Diversity



To reform practices and restructure the system for quality and diversity.

Policy context

The higher education system continues to restructure and develop so that it can deliver the best quality to its students and other key stakeholders.

The HEA continues to advocate for the development of a more diverse higher education system, with individual institutions playing to their own particular strengths and mission.

Building on the patterns of diversity within Irish higher education and as part of the strategic dialogue process, the HEA has emphasised particularly that institutions must consider the breadth of their activities, must ensure that their goals are aligned to their mission and capabilities, and must prioritise between goals as part of their strategic planning process.

Indicators relating to restructuring for quality and diversity (System Objective 6)

The indicators relating to System Objective 6 of the Higher Education System Performance Framework deal with four broad areas:

- Reform of teacher education
- Progress towards technological universities
- Development of regional clusters
- System diversity.

Progress in each of these areas is discussed below.

Reform of teacher education

There has been significant progress in addressing the recommendations made in the Sahlberg report of 2012.⁵³ A series of engagements have taken place with the institutions concerned, both as part of the new process of strategic dialogue between the HEA and the HEIs, and through more focused meetings. The institutions concerned have taken a positive and constructive approach to what are, by any standards, major reforms to the current structure of initial teacher education. There is a strong sense from the institutions that the reform offers opportunities to enhance the teaching and research currently carried out as well as opportunities for other activities such as internationalisation, continuing teacher education and professional development. The HEA has also dedicated an amount of core funding to provide assistance with the costs involved. However, it is important to note that there is considerable work yet to be done to deliver on the objectives of the Sahlberg report, and the HEA will continue to engage with institutions to monitor progress.

⁵³ Department of Education and Skills, 2012. *Report of the international review panel on the structure of initial teacher education provision in Ireland.*



Specific projects

Froebel and Maynooth University

This initiative commenced before the completion of the Sahlberg report, and was warmly welcomed by the Sahlberg group. On foot of significant work by both Froebel College of Education and Maynooth University and with support from the HEA and the Department, the merger between the two institutions has now been completed. The merger has had a very immediate impact – as illustrated by the increase in student demand for entry to the Froebel Department of Early Childhood and Primary Education at Maynooth.

DCU, St Patricks College, Mater Dei Institute of Education and Church of Ireland College of Education

Significant progress has been made on the proposed merger of these four institutions, and by September 2015 all first-year students were enrolled into a new and expanded DCU rather than into the individual institutions. The full incorporation was completed on October 1st 2016.

Key features of the project include:

- The innovative way in which the institutions plan to provide for denominational education in a secular university – this will be achieved through the creation of specific centres for denominational education which will provide the particular education and training required for those denominations
- The opportunities arising to enhance the quality of initial teacher education – for example, the creation of new professorial posts (such as in special education) with a whole of education focus.

NUI Galway and St Angela's College

Significant progress has been made in respect of the incorporation of St Angela's College into NUIG – with a target completion date by September 2017. The institutions have had a long tradition of shared academic linkages, which has provided a stable foundation for this further integration. The incorporation has required consideration of a much wider range of issues, including finance, industrial relations, and equipment/infrastructure. These issues have been addressed by both institutions over the last two years. Significant progress has been achieved and work is continuing on outstanding issues.

TCD, UCD, Marino Institute of Education and NCAD

The proposal relating to these four institutions focuses on the provision of a virtual centre that will draw on the resources of each to enhance the quality of their teacher education and research.

The institutions have made it clear that, as partners, they are committed to a new centre for teacher education; and building on a tradition of inter-institutional collaborations, they have envisaged a process of change that covers governance, review of programmes, and review of research and related areas.

Given that this is not a merger, the milestones by which progress can be measured are less clearly defined. Considerable work has, however, been undertaken by the relevant academics, particularly around the review of existing research activity with a view to better coordination and investigation of the development of shared academic programmes for initial teacher education.

University of Limerick, Mary Immaculate College and Limerick Institute of Technology

These three institutions have agreed to form a new National Institute of Studies in Education (NISE). This would include a collaborative approach to improve the quality of teacher education, one that takes into account continuing professional development (CPD), postgraduate research, internationalisation and action on shared services. Common approaches to the provision of underpinning subject areas that span both primary and post-primary education can also be developed.

Finally, the full integration and accreditation (by UL) of the Art and Design Education programme provided at LIT into the NISE structures is now complete.

Other projects

In addition to these major changes, further consolidation has also taken place in other areas, including deeper collaborations between NUIG and GMIT, and UCC and CIT respectively in their specific niche areas of teacher preparation. The successful integration of Shannon College of Hotel Management into the College of Business, Public Policy and Law in NUI Galway was also completed during 2015.

Funding and risk

All consolidation projects have involved a significant extra cost and significant risk for the institutions concerned. International experience of institutional mergers shows that major risks can arise in terms of uncompleted mergers, which absorb time and resources for no result, and even in the case of successful mergers, of the costs of senior management time and focus on the merger processes.

Of course, institutions do incur direct costs relating to the legal and financial preparations for merger. In a context where the overall funding of higher education has reduced significantly, the HEA has allocated funding specifically to support the merger projects (€2.8 million up to December 2015), and this has been complemented by €3.5 million allocated by the institutions themselves.

Key Highlights 2014–2015: Reform of teacher education

INSTITUTIONAL MERGERS	Good progress has been made on the reform of teacher education – one merger project has been completed and there is ongoing progress on others.
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Progress towards technological universities

The *National Strategy for Higher Education*⁵⁴ recommended significant reform of the institute of technology sector so that it could be better positioned to meet national strategic objectives.

In particular, the Strategy recommended consolidation within the sector and a pathway of evolution for consolidated institutes of technology that would allow them to demonstrate significant progress against stated performance criteria and to apply to become technological universities.

Considerable progress has been made towards this objective. There are currently four consortia engaged with the process to become designated as technological universities:

- **TU4Dublin**, consisting of Dublin Institute of Technology, Institute of Technology Tallaght and Institute of Technology Blanchardstown
- **Technological University for the South-East (TUSE)**, consisting of Waterford Institute of Technology and Institute of Technology Carlow
- **Munster Technological University (MTU)**, consisting of Cork Institute of Technology and Institute of Technology Tralee
- **Connacht Ulster Alliance (CUA)**, consisting of Galway-Mayo Institute of Technology, Institute of Technology Sligo, and Letterkenny Institute of Technology.

At the end of 2014, two consortia, TU4 Dublin and Munster TU both applied for and passed, Stage 3 of the four stage process for re-designation as a technological university. This involved the preparation of a plan setting out the process by which the institutions would merge and move to meet the standards set out in the criteria for designation. The applications were managed by the HEA, which drew on an expert panel to consider and assess the applications. The HEA formally advised the Minister for Education and Skills on the outcomes of its deliberations and the Minister made the final decision to allow the consortia to proceed towards Stage 4 (2014). The Minister also noted and advised the consortia of the HEA feedback on the proposals.

In early 2015 the Connacht Ulster Alliance also expressed an interest in merging and in applying to become a technological university. The HEA considered their application and recommended that the Minister allow the consortium to proceed to the next stage of the process. The Minister then approved the Connacht Ulster Alliance (CUA) application to proceed to Stage 2 of the technological university designation process in October 2015. In line with the process for designation as a technological university, Stage 2 of this process involves the preparation of a plan by the Connacht Ulster Alliance, to meet the criteria for designation as a technological university.

In the South-East, the consortium made good progress initially and submitted a Stage 1 expression of interest in 2012. The consortium then encountered a series of challenges and difficulties and have not yet finalised a Stage 2 plan. However, a report published in July 2015 outlined that the establishment of a technological university for the South-East is viable and could be delivered within a reasonable timescale. Subsequently, a facilitation process was put in place in September 2015, and this has played an important role in building trust between the parties and in developing a strong working relationship between the presidents and chairs of both institutions. As part of this process, the presidents of the two institutions have jointly developed an initial work-plan to support the development of a joint technological university proposal.

54 Department of Education and Skills, 2011. *National strategy for higher education to 2030*.

Key Highlights 2014–2015: Technological universities

STAGES OF PROGRESS	<p>Two applications (Munster and Dublin consortia) for Stage 2 submitted to HEA in 2014; applications considered by the HEA and approved by the Minister.</p> <p>One further Stage 1 application (Connacht Ulster) received and approved in 2015.</p> <p>Further work under way in South East consortium towards preparation of a Stage 2 application.</p>
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Development of regional clusters

In 2013, the then Minister for Education and Skills endorsed the development of regional clusters along the lines proposed by the HEA in its system configuration report.⁵⁵ The Minister emphasised the priority objectives of academic planning and student pathways and directed initial cluster efforts to pursue those objectives.

In order to provide further support to this initiative the HEA specifically requested institutions to report separately on progress in this area, and provided funding for the initiative to incentivise those making most efforts. Institutions were requested to report by the end of 2014, but at the request of some institutions, this deadline was extended to early 2015. The cluster reports demonstrated some diversity in performance, with a particularly strong performance reported in the case of Dublin II (DCU, MU, AIT and DKIT), while other clusters such as Dublin I (UCD, TCD, IADT and NCAD), and Munster could not report similar levels of performance.

The HEA has continued to emphasise the importance of cluster development, and recognising the need for engagement on the issue, in 2015 it consulted with institutions on ways forward. Regional collaboration to drive wider goals is also a key feature of other elements of government:

- In education, in the form of regional skills fora
- In health, in hospital groups
- In enterprise, in the regional action plans for jobs
- In the environment, in collaboration between local authorities.

Nationally, initiatives such as the Office for Government Procurement has a role to play in the development of forms of collaboration.

Collaboration is also a key feature of developments at a European level, where the European Commission is focusing on smart specialisation as a means to ensure maximum benefits from investments in science, research and higher education and to support regional development.⁵⁶ The HEA will engage with the Department for Education and Skills to continue the development of the cluster agenda, with a view to enhancing and enabling better outcomes from higher education.

⁵⁵ HEA, 2013. *Report to the Minister for Education and Skills on system reconfiguration, inter-institutional collaboration and system governance in Irish higher education.*

⁵⁶ For example, see the European Commission's 'smart specialisation' web page: <<https://ec.europa.eu/jrc/en/research-topic/smart-specialisation>>.

Key Highlights 2014–2015: Regional clusters

STAGES OF PROGRESS

Reports of progress show considerable progress by some regional cluster consortia over 2014 towards objectives of academic planning and student pathways.

System diversity

The concept of system diversity is an especially important part of the national strategy, and internationally, there is increasing recognition of the value of system diversity in, for example:

- Meeting the diversity of stakeholder needs
- Allowing institutions to pursue specific areas where they can reach high standards of performance and build and enhance international reputation
- Minimising risk to the system – for example the risk that could arise from excessive focus by many institutions in international activity, or in particular research priorities, which could be vulnerable to changes in the external environment
- Avoiding wasteful duplication.

The relevant data from 2014/15 demonstrates that there are already clear patterns of diversity within the system.

Table 6.1 Student enrolment in Irish higher education institutions 2014/15

	Universities	Institutes of Technology
Level 6 & 7 enrolments (number)	5,172	33,777
Level 8 enrolments (number)	75,947	40,810
Research student enrolments (number)	8,020	1,913
Postgraduate students, national share (%)	80%	20%
Part-time undergraduate enrolments, national share (%)	31%	69%
Part-time postgraduate enrolments, national share (%)	71%	29%
Widening access:		
New entrants to higher education, national share (%)	52%	48%
Socioeconomically disadvantaged new entrants, national share (%)	45%	55%
Mature student, full-time new entrants, national share (%)	35%	65%
Participants in labour market activation programmes (%)	21%	79%

Source: HEA, data on universities and institutes of technology, excludes colleges data.

Table 6.1 shows the diversity of student enrolment, and also reflects the traditional diversity of mission between the different sectors. The development of diversity beyond that shown here will be a key focus for the HEA into the future, and in its strategic dialogue process the HEA has consistently emphasised the importance of further increasing diversity in the higher education sector. The HEA has asked all institutions to consider their strategic priorities more actively within their overall mission; to be more robust in selecting particular priorities based on their capabilities and regional needs; to dedicate appropriate resources and capabilities to seeking genuine performance improvements in those areas; and not just covering all areas of activity at the same level. In doing so institutions should also have regard to the priorities of other institutions regionally and nationally, and should act to avoid duplication.

Key Highlights 2014–2015: System diversity

PROGRESS ON ENHANCING SYSTEM DIVERSITY	<p>There is continued evidence of diversity between sectors.</p> <p>As part of strategic dialogue, the HEA will to continue to push for greater diversity between and also within sectors.</p>
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Areas for future focus

While good progress is evident across the objectives in this domain, much work remains to be done. The HEA will continue to provide support to ensure that the ongoing reform of teacher education is completed – this should be largely achieved by 2017.

Similarly, the HEA notes the progress of those institutes of technology aspiring to technological university designation and recognises the further work that lies ahead for these consortia in completing that progress.

In respect of regional clusters, the HEA will continue to work with the HEIs concerned, and will also continue to engage with the Department of Education and Skills in the development of regional skills fora, with a view to maximising synergies and complementarities.

Finally, the HEA will continue to use the strategic dialogue process to steer the development of the system to enhance diversity, not as an end in itself – rather as a means to enable the HE sector as a whole meet the very diverse needs of Irish society and its economy, and also, to enable the institutions to achieve international levels of excellence through prioritised focus on particular niche areas in which they can achieve and sustain excellent performance.



System Objective 7

Accountability for
Public Funding



To increase accountability of autonomous institutions for public funding against national priorities.

Policy context

An underpinning feature of this new system framework for higher education is greater accountability for the very significant public investment in higher education. Such accountability requires the sector to consider how it engages with reform on an ongoing basis – both as part of the wider Government agenda for public sector reform, and within the institutions themselves in their own initiatives to improve performance at all levels.

The system is making substantial progress. As set out in other areas of this report, the system can report good progress in individual domains, particularly in the continuing growth in student numbers and in the ways it is meeting skills needs. And there is also progress in areas such as widening access, improvements in teaching and learning, research and knowledge exchange, and reform of the higher education landscape.

Linked to the issue of accountability is a concern that the system may be underperforming in certain domains, where current regulatory frameworks might be inhibiting potentially fruitful activity. Examples where this might be the case include current limits to institutions' ability to manage their international activities, or to undertake off-campus provision or online or executive education. The HEA is engaged with the Department of Education and Skills and with the higher education institutions to consider these issues.

The HEA believes it is imperative that changes to the funding and regulatory system are accompanied by greater accountability around performance management within higher education institutions. Institutions must continue to demonstrate that they deliver good value for the funding they receive from the State or from other sources. The case study on workload management (see page 77) illustrates an approach being taken in one university. The HEA is aware that other universities have similar systems in place, and that while the context is different in the IoT sector, these also have equivalent systems in place to manage performance. The HEA will work further with the sector to report more systematically on these outcomes and to target actions to address any issues of underperformance that arise. As a first step the HEA will ask institutions to report on this area specifically in the next round of strategic dialogue.

The HEA also considers that there is scope in some institutions to develop better management information and reporting systems that can help them understand the different components of their 'business' and their respective contributions to financial performance. It is now critical that all institutions embed the need to generate non-Exchequer sources of revenue within their internal management, performance and resource allocation systems, and that approaches are put in place to incentivise innovation and the development of new programmes and propositions that can deliver additional income. While it is acknowledged that institutions will always wish to cross-subsidise provision to ensure that a balance of disciplines is maintained and that investment continues to be made in strategically important activities, it is nonetheless important to understand the relative contribution of different activities in order to inform such decision making.



System Objective 7 Accountability for Public Funding [continued]

More generally, the HEA considers that the strategic dialogue and compact process is continuing to deliver benefits, particularly in a sharper focus on both system and individual institutional performance. The 26 agreed compacts, all of which are publicly available on the HEA website, provide a good basis for understanding the priorities set by the institutions and how well they are performing in delivering against those priorities. They also provide a wealth of evidence to help inform further policy development and goal-setting nationally. The HEA will continue to work with the system to further develop the system dialogue and compact process. In particular, the HEA has highlighted to all institutions the need to improve in relation to:

- Clarity of objective setting – focusing on outcomes with related appropriate performance indicators
- A whole-of-institution approach to objective setting – to identify and exploit synergies between the domains of the compact
- The use of external benchmarks – to provide institutions with information and to enable accountability in relation to the ambitions they set themselves.

Indicators relating to accountability for public funding (System Objective 7)

The indicators relating to System Objective 7 of the Higher Education System Performance Framework deal with three broad areas:

- System funding and infrastructure
- Accountability, governance and performance management
- Public sector reform

Progress in each of these areas is discussed below.

System funding and infrastructure

Overall funding for core activities stabilised somewhat over the 2014–2015 period, but this is against a backdrop of year-on-year increases in student numbers. Expenditure per student decreased by approximately 4 per cent between 2013 and 2014. The shift in the balance of public and private funding in higher education has also continued as a result of reductions in State funding and an increase in the student contribution from €2,500 to €3,000 currently.

Some of the reduction in public funding has been compensated for by the increase in student contributions. While the State makes this contribution for almost half of all students attending higher education, there is increasing evidence that the requirement to pay this contribution is causing difficulties for some students.⁵⁷

⁵⁷ HEA, 2016. *Review of the student assistance fund*.

Institutional accounts

The decline in public funding is having a serious impact on the financial position of the institutions. The most recent accounts provided by the institutions to the HEA for 2014/15 as part of the 2016 budgeting process show that 11 of 26 institutions were in deficit during this financial year. A recent financial review of the IoT sector also demonstrated a significant depletion of reserves from €132.5 million to €78.7 million, wiping out 40 per cent of the finance available to underpin ongoing viability.

Concern over the financial position and sustainability of the IoT sector led to the financial review which took place in tandem with the annual budget process. This review considered future plans and projections alongside past and current performance, and identified the issues that have to be addressed at both institutional and sectoral level. This confirmed the seriousness of the sustainability challenge to be faced, with half of the fourteen institutions in unplanned deficit for 2014/15, and five of these considered vulnerable. The full financial review of the IoT sector was published in early November 2016.

In the university sector, the most recent set of audited figures comes from 2012/13 and shows the sector as a whole running a loss of €1.5 million on turnover of close to €2 billion. This has led to decisions being taken to deliver short-term savings, but at long-term costs – such as the postponement of ongoing capital investment in order to balance annual budgets. In the specialist colleges, there remains concern over the vulnerable status of one particular institution, while the successful completion of current incorporation processes will be key to ensuring that such issues do not arise in the other colleges.

The trend behind these figures is of concern, demonstrating steadily declining surpluses over recent years. For example, in the case of the IoTs, the surplus stood at €40 million in 2009/10, and has declined steadily since then to about €15 million in 2012/13. In the most recent sets of budget meetings between the HEA and institutions, this trend of declining surpluses is continuing and is expected to move to deficit.

The financial accounts illustrate the major sustainability problems facing the sector. It should be noted that the OECD in their review of Irish higher education had recommended a figure of an annual 3 per cent surplus as the level necessary to maintain institutional sustainability.

Capital infrastructure

The sector continues to stretch itself significantly to physically accommodate the increasing student population. International norms for student space ratios are between 10m² and 11m² per student; Ireland's institutions average between 7m² and 8m² per student – a shortfall of about 25 per cent. Capacity to continue to provide places for an expanding student cohort is diminishing, especially in lab-based courses such as ICT and science.



Space utilisation within the sector is now above 67 per cent, which has increased from 63 per cent in 2010. This is an average and does not reflect the significant capacity issues that exist for specialist teaching facilities. The increase is due to significant growth in student numbers with virtually no increase in capital space provision in the same period. Sustaining this level of utilisation is challenging, particularly in the light of the relatively high proportion of facilities that are classified as in need of replacement or major repair. Over 41 per cent of space within the higher education sector in Ireland is more than 25 years old, of which 18 per cent is more than 50 years old. Major repair or replacement is required on 41 per cent of the total space in the sector. Temporary buildings (including prefabs) and rented space account for 6 per cent of stock.

Key Highlights 2014–2015: Funding and infrastructure

SYSTEM FUNDING	<p>Total funding in 2014 amounted to €1.8 billion.</p> <p>Expenditure per student in 2014 was €9,615.</p> <p>Public expenditure accounts for 51 per cent of overall funding (excluding contract research income).</p>
SPACE UTILISATION	<p>Irish institutions provide about 25 per cent less physical space per student than international norms.</p> <p>Space utilisation within the sector is above 67 per cent, which has increased from 63 per cent in 2010.</p>

Accountability, governance and performance management

Institutional governance

An important part of the system for accountability within higher education is the audit by the Office of the Comptroller and Auditor General (C&AG) of the accounts of higher education institutions and the consideration of findings arising from those audits by the HEA, the Department of Education and Skills and by the Public Accounts Committee.

A number of issues arise in this regard. In the first instance, the timing of the audits is such that they are only finalised some time after the conclusion of the relevant time period – in some cases, a number of years later. Measures have now been put in place by the C&AG to move towards a much more streamlined approach with a view to having audits completed within nine months of the close of the relevant financial year. The HEA and the C&AG have also established regular liaison meetings to ensure that any governance issues identified by either party are flagged at an earlier stage, allowing for more timely interventions to be progressed.

The HEA has also revised and enhanced its procedures for assessing the robustness of governance procedures within the higher education sector. An overall governance framework has been developed and communicated to the sector setting out governance and reporting mechanisms between the institutions and both the HEA and the Department of Education and Skills. This framework also acknowledges the role of the C&AG in a higher education governance context.

A financial memorandum has been put in place between the HEA and individual institutions for the first time, summarising their respective responsibilities and the requirements that underpin the allocation of State funding.

A much more detailed questioning of the institutions about the governance procedures they have in place and the effectiveness of those procedures has been established via the annual governance reporting process and ongoing correspondence with the institutions.

The HEA has recently received and noted the annual governance statements for 2013/14 based around these new requirements. While the full detail of these procedures is too complex to present in this report, the HEA has prepared high level traffic light indicators setting out the areas of governance where issues were identified and where action is being taken (see appendix).

Finally, while overall the audits present a reasonably robust picture of the HE system,⁵⁸ there have been significant institutional issues, and some systemic issues have been noted. The HEA, with the Department of Education and Skills, has put in place new measures to address weaknesses that have emerged – these measures include more detailed scrutiny of how HEIs meet the current governance and accountability requirements, and a new system of rolling review to examine in depth any potential areas of systemic weaknesses. The first such review will consider procurement commencing in 2016.

Ongoing roll-out of strategic dialogue

The HEA continues to roll-out the process of strategic dialogue with the higher education institutions, and in 2015 it reviewed the performance of the institutions against their 2014 targets. It should be emphasised that in assessing performance the HEA was not just concerned with whether or not institutions met the targets set out for them. Previous experience internationally shows that where performance funding is reduced to simplistic assessment of targets it can become a mechanical and ultimately unsatisfactory exercise. It is also important that the institutions would demonstrate their capability to undertake effective strategic management. This involves in the first instance a critical self-review and (where appropriate) actions to reset goals or targets. For example, in many cases institutions reported to the HEA that individual targets had been exceeded. In some cases, that represented evidence that institutional capacity for performance was greater than originally estimated and on that basis performance targets were reassessed and in some cases raised. This is a much more effective means of using the dialogue process than a simple checking of whether or not original targets were met.

The results of the performance review were very positive, with fourteen of the twenty-six institutions adjudged to have made very good progress against their compacts, and a further eight judged to have made good progress. In the case of three institutions (DKIT, NCAD, and GMIT), the HEA had concerns in relation to aspects of performance and asked the institutions to review their compact to address these concerns. Those institutions subsequently resubmitted compacts to the HEA to take account of the issues raised; and having considered the submissions, the HEA released the performance funding previously withheld.

58 The obvious exception is NCAD where a range of governance issues have been identified. Processes are now under way to address the issues identified, and the HEA is closely monitoring the NCAD to ensure that its procedures are upgraded to meet required standards.



System Objective 7 Accountability for Public Funding [continued]

The 2015/16 round is also now in train. The HEA again conducted a series of strategic dialogue meetings with all higher education institutions during September 2016. Initial indications on performance to the end of 2015 suggest that institutions are continuing to make progress on their chosen strategic priorities. However, a number of institutions are now even more challenged by deteriorating financial, capital and staffing conditions. Some institutions are adopting their strategies to overcome such constraints, such as tapping or growing external funding sources. These responses allow some institutions to become less reliant on public funding streams but this behaviour also further widens performance and other gaps between those institutions. Those that have recourse to such strategies will make progress. Those that remain constrained in their ability to act or to respond will stagnate in the face of growing international competition for skills and resources.

Key Highlights 2014–2015: Accountability, governance and performance management

GOVERNANCE STRUCTURES	<p>New governance oversight arrangements put in place by the HEA.</p> <p>System of rolling reviews to examine particular aspects of appropriate governance initiated in 2016 with review of procurement.</p>
PERFORMANCE MANAGEMENT	<p>Second round of strategic dialogue – first review of performance against agreed compacts.</p> <p>Process agreed for performance funding – majority of institutions deemed to have made excellent or satisfactory performance.</p> <p>Three institutions identified as having serious issues and requested to review compact with 2 per cent funding withheld. Further review of revised submissions led to funding being released for 2016.</p>

Public sector reform

The Education Procurement Services (EPS) became the Education sector sourcing organisation for the newly established Office for Government Procurement (OGP) in 2014. Under the new OGP led procurement model, the EPS now provides the public sector with shared service procurement of laboratory equipment, diagnostics and research equipment, library goods, services, and agriculture and veterinary supplies. In the three years to the end of 2015, the EPS contributed to the achievement of procurement savings estimated in excess of €160 million in the public sector. The EPS now represents the higher education sector and the Education sector as a whole on education specific procurement, in 2008 it was a shared service representing just four institutions.

An evaluation completed in 2015 found that HEAnet’s approach to service delivery is the optimum strategy for the provision of ICT and e-infrastructure services to the education and research sector in Ireland. The investment made by HEAnet in the development of a high-capacity, high-availability next generation network provides a platform for the future and must be regarded as a strategic national asset.

Further consolidation of shared services has also been achieved with the establishment of EduCampus as a subsidiary of HEAnet and dissolution of An Chéim in 2015. EduCampus is now working closely with the Department of Education and Skills in supporting the delivery of shared services while providing much needed investment in the upgrading of ICT systems across the IoT sector.

While progress has been slower than initially expected, the sector has established a strong business case for payroll shared services for the sector during 2014 and 2015, and work in this area is ongoing.

Key Highlights 2014–2015: Public sector reform

SHARED SERVICES	<p>HEAnet provides over forty services for over one million first, second and third level staff and students in Ireland.</p> <p>A recent evaluation found that six HEAnet services saved the Irish taxpayer just under €20 million in 2014 based on an operating cost of €4.9 million.</p> <p>Further consolidation of higher education shared services was achieved with the establishment of EduCampus as a subsidiary of HEAnet in May 2015 to replace An Chéim.</p> <p>Baselining for payroll shared services for higher education was completed in 2014 and the business case was finalised in Q3 2015</p> <p>Education Procurement Services (EPS) became the education sector sourcing organisation for the newly established Office for Government Procurement (OGP) in 2014 establishing three new sectoral category councils as part of the new OGP-led procurement model (OGP lead on eight central categories). These category councils were fully operational in 2015.</p> <p>In the three years to the end of 2015, the EPS contributed to the achievement of procurement savings estimated as in excess of €160 million in the public sector.⁵⁹</p>
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59 Department of Public Expenditure and Reform.



Areas for future focus

Governance and accountability

The HEA intends to continue its revised focus on governance and oversight within the higher education sector. Effective governance at an institutional level is an essential requirement of a high performing institution and hence of the overall system. The initiative to carry out rolling reviews of particular aspects of corporate governance in selected institutions is designed to support the sector in identifying both weaknesses and good practices and to further enhance good practice across the sector.

Roll-out of strategic dialogue

The further roll-out of strategic dialogue is also a major objective for the HEA. In addition to the focus on the achievement of existing performance targets, the HEA has also emphasised to all institutions that it continues to expect improvements in the way in which they present their compacts. Specific feedback to all HEIs included the need for improvement in:

- Prioritisation of institutional goals
- Internal coherence of compacts, particularly identifying synergies between different domains of the compact
- Improved setting of objectives – to be outcome-related and grounded in verifiable baseline data, and to be related to overall institutional mission
- Benchmarking with national and international peers to set the context for the performance ambitions being set out.

Ongoing review of the Recurrent Grant Allocation Model (RGAM)

The Recurrent Grant Allocation Model (RGAM) is the core funding model used by the HEA and it plays an important role in setting the framework for institutional strategic planning. The model also drives efficiency in the system through its creation of a benchmarking framework that rewards the most efficient institutions and creates an imperative for other institutions to match that performance. The HEA keeps the operation of the RGAM under ongoing review, and will consult further later in 2016 in respect of possible changes. Key issues to be considered are the need to take into account the decline in public funding, the increased rate of student contribution, and the impact that the change in the mix of funding has had on overall institutional funding.

Research overheads

A further important issue is the long-term financial basis of the research system within higher education. As noted in relation to System Objective 4, the performance of higher education in research has been strong, but there is a major issue of concern in that the costs of undertaking research in higher education are varied, and sometimes not immediately obvious. In order to sustain research performance, and meet the goals of Innovation 2020, the HEA considers it important to review the underlying funding models for research and will engage with the relevant Government departments and agencies to reconsider this issue in 2016.

Enhancing sectoral efficiency

The evidence in this chapter shows a system under considerable stress, as evidenced by the state of the capital infrastructure and the financial position of the institutions. It is expected that these issues will be addressed by the forthcoming Oireachtas consideration of the Expert Group report on the Future Funding of the Higher Education Sector, with a view to considering a long-term sustainable model of funding higher education. However, the HEA will also continue to consider all opportunities to enhance the efficiency of the higher education system. The case study of the roll-out of workload management is an important development in this regard.

CASE STUDY: Workload management and reform

System Objective 7 aims to increase the accountability of autonomous institutions in relation to the public funding they receive and against national priorities. One particular instance of the ways in which institutions are responding to this is through the ongoing development of effective workload management within higher education institutions.

This is an important area for development. It is essential that taxpayers (as the majority funders of the higher education system) be shown that the investments made are being used effectively and efficiently. It is also important for individual institutions to ensure that they are maximising institutional performance to deliver better services for students and other stakeholders, and to continue to compete internationally.

A key complicating factor has been that very often public discussions of efficiency are focused around partial and misleading metrics such as hours spent teaching. This under-represents the activity and work being carried out by academic members of staff; equally, it is not sufficient just to assert that other work is being carried out if such assertions are not fully grounded in evidence or systems. The net result can be a damaging debate, which lacks the evidence to set out the reality.

The system is moving to address this through the development and implementation of comprehensive workload management systems. One example is the work being carried out by NUIG, which has put in place new systems that capture how academic staff members use their time (for example, in teaching, research and services) and to assess their performance. This can be tailored to reflect differences between disciplines (e.g. teaching in arts is generally less laboratory-intensive compared to teaching in the sciences) and it can be benchmarked against peer academics in other institutions. This allows a more robust, evidence-driven approach to how well resources are being used within the university and to look for ways to achieve constant improvement in this regard.

The development of such workload management approaches is still a relatively new feature of higher education in Ireland and internationally, and it will require further work to become fully integrated across and within institutions. But this type of comprehensive and evidence-driven approach offers huge potential to improve both accountability and performance within higher education, and specifically to address System Objective 7 of the system performance framework. The HEA will accordingly ask all institutions to report on their particular approaches to implementing performance management/workload management as appropriate in the next round of strategic dialogue.



Conclusion

The Irish higher education system is diverse and responsive. It provides high-quality educational programmes, research, skills training and contract services, reaching almost 215,000 learners from various backgrounds as well as many economic and civil society partners. It also identifies challenges and reacts to the needs of economy and society through basic and applied research, and it works to enhance industry and job creation in Ireland, both through its mainstream activities and also through specific activities designed to address skills gaps. In doing so, it liaises closely with employers to develop and refine these responses.

There are challenges for Irish higher education too. As evidenced in the recent Cassell's Group Report (March 2016), and through the data provided by the higher education institutions in strategic dialogue and referenced in this report, the system is approaching a point where the available resources will not be able to assure adequate quality of provision.

The 2014–15 round of strategic dialogue found that institutions are facing a difficult environment. A significant number of institutions are rapidly depleting their historic surpluses just to maintain quality, while at the same time they are expanding to meet ever greater needs that are fuelled by demographic changes. Other institutions are severely restricted in their ability to grow because of unsustainable operational losses or lack of physical space. Many institutions are responding by growing their international student numbers in an effort to increase their income. This is a risky strategy, as such income flows can be volatile – especially if the necessary long-term investment is not in place to make international growth sustainable.

Institutions and government are responding too. Higher education providers are developing innovative programmes and adapting courses – for example, by including generic skills training modules at all programme levels and disciplines that can better prepare graduates for the world of work. Government is providing additional funding for targeted initiatives to support the transition of learners from post-primary into further and higher education. Regional responses are being developed by locally governed 'skills fora' which bring together a range of stakeholders to identify and address regional development barriers. The higher education landscape is also being transformed through regional clusters and institutional mergers, and a number of groups of institutions have made steady progress on a path to technological university status.

The recent gender equality report has mapped a path to greater equality in Irish higher education institutions. The now annual student survey and biannual employer survey are designed to collate the opinions of these stakeholders so that the education system can be ever more responsive to their feedback. The higher education sector's strategic dialogue process is designed to recognise such institutional responses to national needs and, where necessary, to challenge institutions and their leaders, and to hold them to account in the event of non-delivery (through a performance related funding mechanism).

The outcomes from the 2014–15 round have, on the whole, been very positive. It was necessary to challenge a small number of institutions on their performance. All of these have refined their strategy and activities to meet the challenges. Ireland can therefore be assured of the strategic capacity and intent of its higher education institutions, but must continue to resource them appropriately in order to maintain and raise standards. This is an absolute necessity if we are to continue to meet our national skills needs and keep pace with the unrelenting progress demonstrated by our international competitors.



APPENDICES



Appendix A – Traffic light scores – institutional governance

ISSUES	UCD	UCC	NUIG	MU	TCD	UL	DCU	MIC	SPD	NCAD	MATER DEI	ST ANGELA'S
1. Compliance with legislation	●	●	●	●	●	●	●	●	●	●	●	●
2. Code of governance	●	●	●	●	●	●	●	●	●	●	●	●
3. Members' code	●	●	●	●	●	●	●	●	●	●	●	●
4. Employees' code	●	●	●	●	●	●	●	●	●	●	●	●
5. Financial developments	●	●	●	●	●	●	●	●	●	●	●	●
6. Pay	●	●	●	●	●	●	●	●	●	●	●	●
7. Financial reporting	●	●	●	●	●	●	●	●	●	●	●	●
8. Internal audit	●	●	●	●	●	●	●	●	●	●	●	●
9. Procurement	●	●	●	●	●	●	●	●	●	●	●	●
10. Asset disposal	●	●	●	●	●	●	●	●	●	●	●	●
11. Capital proposals	●	●	●	●	●	●	●	●	●	●	●	●
12. Travel	●	●	●	●	●	●	●	●	●	●	●	●
13. Value for money	●	●	●	●	●	●	●	●	●	●	●	●
14. Tax	●	●	●	●	●	●	●	●	●	●	●	●
15. Child protection policy	●	●	●	●	●	●	●	●	●	●	●	●
16. Fees and expenses	●	●	●	●	●	●	●	●	●	●	●	●
17. Fees and expenses in annual report	●	●	●	●	●	●	●	●	●	●	●	●
18. Aggregate fees and expenses	●	●	●	●	●	●	●	●	●	●	●	●
19. Subsidiaries	●	●	●	●	●	●	●	●	●	●	●	●
20. Non-compliance	●	●	●	●	●	●	●	●	●	●	●	●
21. Protected disclosures	●	●	●	●	●	●	●	●	●	●	●	●
22. Gov. auth. responsibility for internal control	●	●	●	●	●	●	●	●	●	●	●	●
23. Assurance against error	●	●	●	●	●	●	●	●	●	●	●	●
24. Control environment	●	●	●	●	●	●	●	●	●	●	●	●
25. Business risks	●	●	●	●	●	●	●	●	●	●	●	●
26. Information systems	●	●	●	●	●	●	●	●	●	●	●	●
27. Implications of risk	●	●	●	●	●	●	●	●	●	●	●	●
28. Monitoring effectiveness of internal control	●	●	●	●	●	●	●	●	●	●	●	●
29. Review of effectiveness of internal control	●	●	●	●	●	●	●	●	●	●	●	●
30. Weaknesses in internal control	●	●	●	●	●	●	●	●	●	●	●	●
31. Corrective action	●	●	●	●	●	●	●	●	●	●	●	●
32. Gov. auth. meetings	●	●	●	●	●	●	●	●	●	●	●	●
33. Audit comm. meetings	●	●	●	●	●	●	●	●	●	●	●	●
34. Review of gov. auth. performance	●	●	●	●	●	●	●	●	●	●	●	●
35. Salary of President	●	●	●	●	●	●	●	●	●	●	●	●
36. Other issues	●	●	●	●	●	●	●	●	●	●	●	●

● - Green indicates compliance with relevant requirements ● - Yellow indicates non-compliance but corrective action has or will be taken
 ● - Red indicates non-compliance with little or no evidence of corrective action

ISSUES	UCD	UCC	NUIG	MU	TCD	UL	DCU	MIC	SPD	NCAD	MATER DEI	ST ANGELA'S
1. Compliance with code	●	●	●	●	●	●	●	●	●	●	●	●
2. Members code	●	●	●	●	●	●	●	●	●	●	●	●
3. Employees code	●	●	●	●	●	●	●	●	●	●	●	●
4. Financial developments	●	●	●	●	●	●	●	●	●	●	●	●
5. Pay	●	●	●	●	●	●	●	●	●	●	●	●
6. Financial reporting	●	●	●	●	●	●	●	●	●	●	●	●
7. Internal audit	●	●	●	●	●	●	●	●	●	●	●	●
8. Procurement	●	●	●	●	●	●	●	●	●	●	●	●
9. Assets disposal	●	●	●	●	●	●	●	●	●	●	●	●
10. Appraisal capital projects	●	●	●	●	●	●	●	●	●	●	●	●
11. Travel policy	●	●	●	●	●	●	●	●	●	●	●	●
12. Value for money	●	●	●	●	●	●	●	●	●	●	●	●
13. Tax laws	●	●	●	●	●	●	●	●	●	●	●	●
14. Corporate procurement plan	●	●	●	●	●	●	●	●	●	●	●	●
15. Non compliance	●	●	●	●	●	●	●	●	●	●	●	●
16. Confidential disclosures	●	●	●	●	●	●	●	●	●	●	●	●
17. GB meetings	●	●	●	●	●	●	●	●	●	●	●	●
18. Audit committee meetings	●	●	●	●	●	●	●	●	●	●	●	●
19. Review of GB performance	●	●	●	●	●	●	●	●	●	●	●	●
20. Salary of President	●	●	●	●	●	●	●	●	●	●	●	●
21. Child protection policy	●	●	●	●	●	●	●	●	●	●	●	●
22. Fees/expenses in line with DoF	●	●	●	●	●	●	●	●	●	●	●	●
23. Fees/expenses in annual report	●	●	●	●	●	●	●	●	●	●	●	●
24. Schedule of fee/expenses	●	●	●	●	●	●	●	●	●	●	●	●
25. Trading subsidiaries	●	●	●	●	●	●	●	●	●	●	●	●
26. General governance issues	●	●	●	●	●	●	●	●	●	●	●	●
27. Gb responsibility for IC	●	●	●	●	●	●	●	●	●	●	●	●
28. Assurance against material error	●	●	●	●	●	●	●	●	●	●	●	●
29. Procedures in place effective control	●	●	●	●	●	●	●	●	●	●	●	●
30. Business risks	●	●	●	●	●	●	●	●	●	●	●	●
31. Information systems	●	●	●	●	●	●	●	●	●	●	●	●
32. Financial implications of business risks	●	●	●	●	●	●	●	●	●	●	●	●
33. Monitoring effectiveness of IC	●	●	●	●	●	●	●	●	●	●	●	●
34. Review of effectiveness of IC	●	●	●	●	●	●	●	●	●	●	●	●
35. Weaknesses in IC	●	●	●	●	●	●	●	●	●	●	●	●
36. Actions to correct weakness	●	●	●	●	●	●	●	●	●	●	●	●

● - Green indicates compliance with relevant requirements ● - Yellow indicates non-compliance but corrective action has or will be taken
● - Red indicates non-compliance with little or no evidence of corrective action



Appendix B – HE system performance over time

In this section, the HEA present relevant data to capture changes in system activity and performance since the first system report in 2014. This will be further expanded and continued by the HE over the course of future system reports.

System Objective 1 – Meeting Ireland's Human Capital Needs

	Total undergraduates (2013/14)	Total post graduates (2013/14)	Level 8 graduate outcomes (2012)	
FIRST REPORT	170,608	36,838	Employed	52%
			Further education	37%
			Seeking employment	7%
Level 8 graduate outcomes (2014)				
SECOND REPORT	179,221	39,978	Employed	58%
			Further education	35%
			Seeking employment	5%

System Objective 2 – Equality of Access and Student Pathways

	2011/12	2012/13	2013/14	2014/15
New entrants with disability	2,166	2,561	2,639	3,347
<i>as percentage of total new entrants</i>	N/A	7%	9%	11%
Socio-economically disadvantaged new entrants	8,240	9,147	10,325	10,875
<i>as percentage of new entrants</i>	20%	22%	25%	26%
Full-time mature new entrants	5,693	5,456	5,332	5,063
<i>as percentage of new entrants</i>	14%	13%	13%	12%
Total new entrants	40,766	41,324	41,814	42,210

Progression from further education

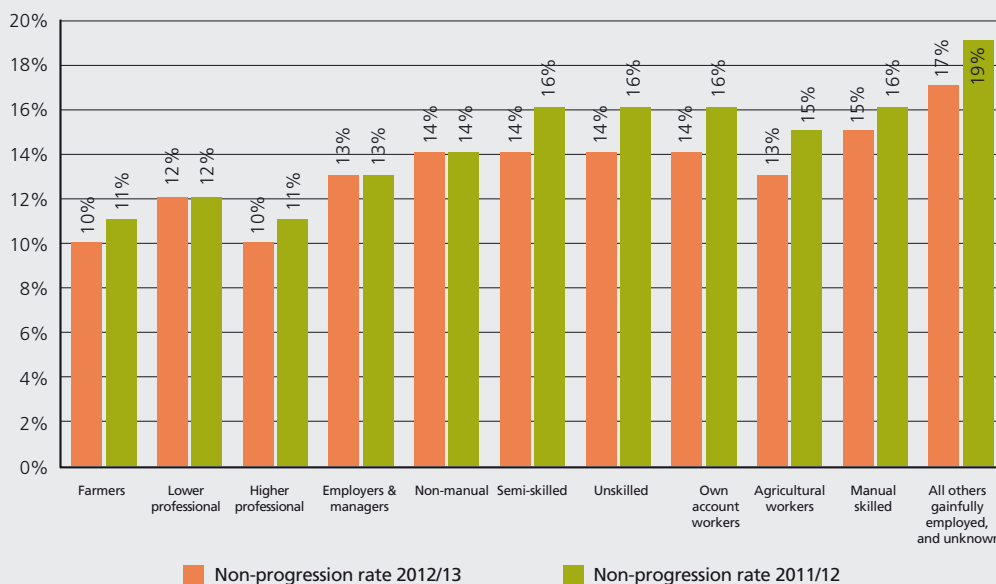
Year	Applicants	Offers	Acceptances
2012	15,288	7,132	3,065
2013	15,767	7,347	3,033
2014	15,544	7,256	3,143
2015	15,639	7,324	3,089

Flexible learners and participants in Labour Market Activation

	2011/12	2012/13	2013/14	2014/15
Flexible learners (part-time and remote)	35,750	36,932	39,580	40,271
Participants in Labour Market Activation ⁵⁷	2,593	3,116	3,093	2,544

⁵⁷ This includes students who have entered through a government initiative to provide up-skilling training and support as identified by the institution's admission records. The cohort includes those participating in Springboard+ and Labour Market Activation undergraduate and postgraduate programmes.

A comparison of non-progression rates by socio-economic groups 2011/12 v. 2012/13



System Objective 3 – Excellence in Teaching and Learning

Non-progression rates

SECTOR	LEVEL	2007/08–2008/09	2010/11–2011/12	2011/12–2012/13	2012/13–2013/14
Institutes of technology	Level 6	25%	30%	30%	26%
	Level 7	26%	28%	29%	28%
	Level 8	16%	17%	17%	17%
	All new entrants	22%	24%	24%	23%
Universities	Level 8	9%	9%	10%	11%
Colleges	Level 8	4%	4%	4%	6%
All institutions	Level 8	11%	11%	11%	12%
All institutions	All new entrants	15%	16%	16%	16%

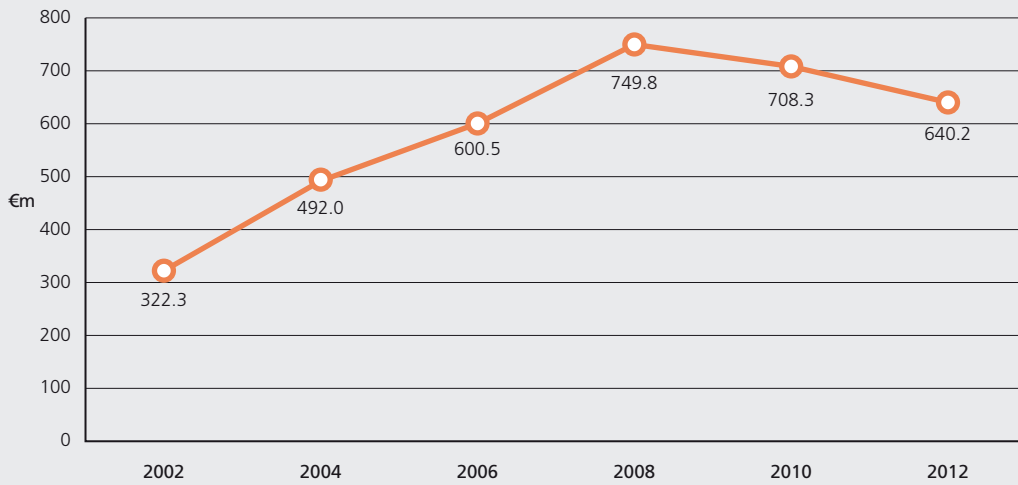
Staff–student ratios, 2007/8 to 2013/14

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
WTE student numbers (full-time + part-time/2)	158,057	164,180	173,723	177,329	179,105	181,308	185,760
WTE core staff numbers	19,500	19,411	18,524	18,321	17,899	17,604	17,771
WTE academic staff numbers (including self-funded)	10,100	10,041	9,772	9,697	9,418	9,297	9,364
Ratio of academic staff to students	1:15.6	1:16.4	1:17.8	1:18.3	1:19.0	1:19.5	1:19.8



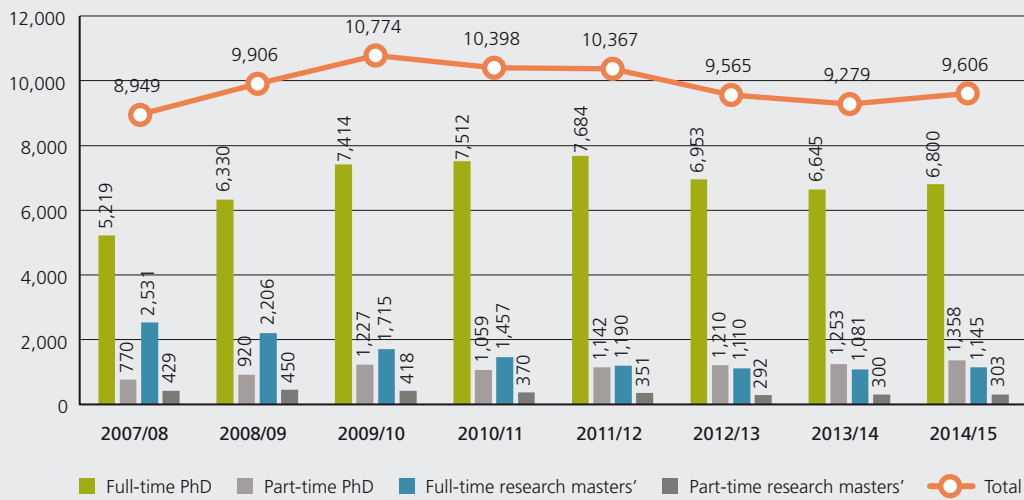
System Objective 4 – Excellent Public Research System

Summary of higher education expenditure on R&D (HERD), 2002–2012, current prices



Source: Department of Jobs, Enterprise and Innovation, 2015. Survey of research and development in the higher education sector 2012/2013.

Research enrolment trends 2007/08–2014/15: programme type and mode



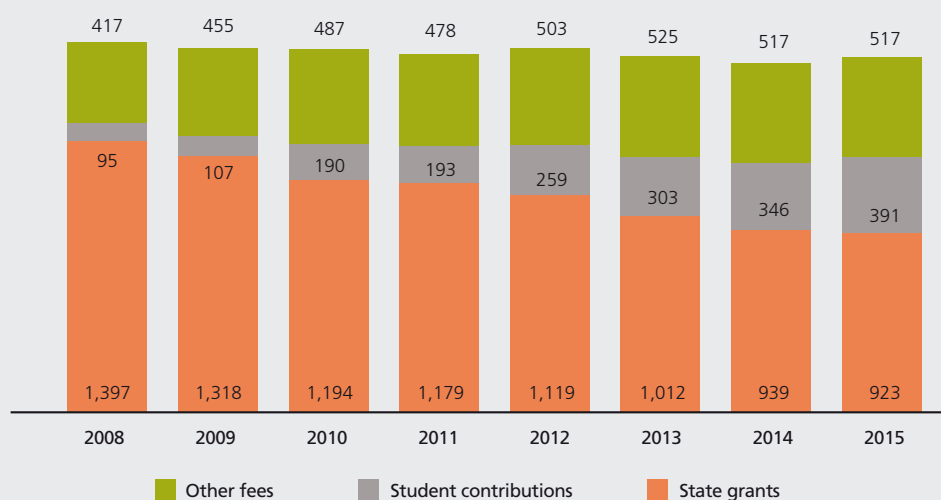
System Objective 5 – Globally Competitive and Internationally oriented institutions

Change in International Provision 2011/12–2013/14

	International as a % of all FT 2011/12	International as a % of all FT 2012/13	International as a % of all FT 2013/14
University Sector	9%	11%	12%
Institute of Technology Sector	3%	3%	5%
Other Colleges Sector	0%	1%	1%
Overall Total	6%	7%	9%

System Objective 7 – Accountability for public funding and public service reform

Core income of publically funded higher education institutions

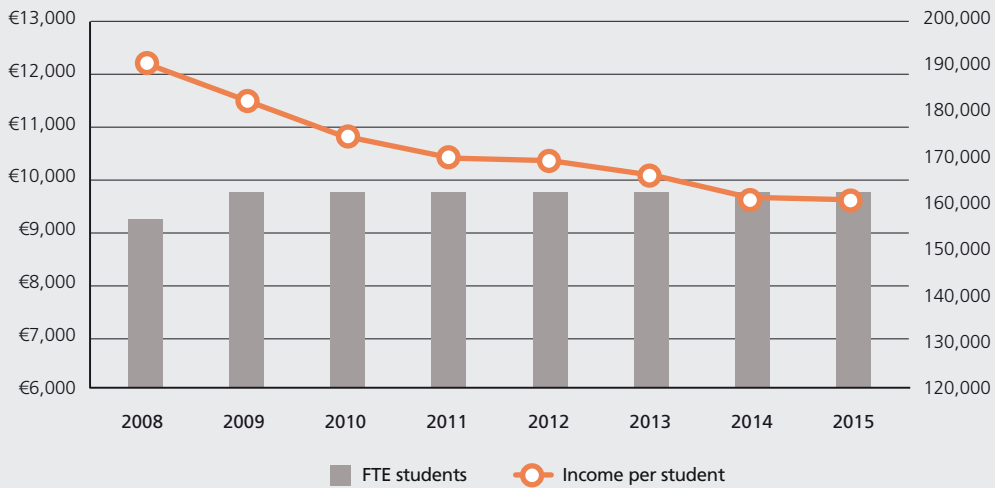


Source Cassells report (March, 2016)



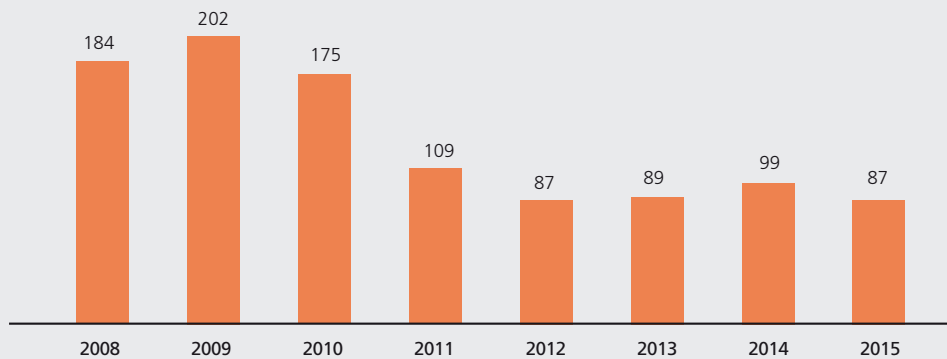
Appendix B – HE system performance over time [continued]

Student numbers (full-time equivalents) and core income per student



Source Cassells report (March, 2016)

Exchequer capital expenditure on higher education (€)



Source Cassells report (March, 2016)

Note: given a capital base of c. €8 billion in Irish higher education, the annual expected minimum figure for necessary depreciation and refurbishment would be c. €160 million (2 per cent of the total capital base).



Appendix B – HE system performance over time

