

Expert Group on Future Funding for Higher Education

Optimising Resources in Irish Higher Education

Discussion Paper 2

**Discussion Paper for
Stakeholder Consultation**

26th June 2015

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Foreword

As a Group we have been tasked with assessing the long term funding requirements of the higher education system and identifying funding options for the future.

We know that reviving development and addressing future social and economic needs will require significant investment in education, including higher education, further education and apprenticeships. We also know that the current funding of higher education is not sustainable given our demographics and the funding requirements of increased participation.

However, before we reach conclusions on the scale of additional resources required, there is a need to examine how the current system is funded, how it is using those resources and how it organises itself. We need to be confident that current resources are being used and managed to best effect.

It is important to acknowledge that the sector has proved itself flexible and resilient in recent years and has continued to deliver high quality education and research for an ever expanding number of students and range of stakeholders. It has also sought to enhance and develop new ways of working and organising itself, and it is actively engaged in a significant programme of reform across the sector.

However, there appears to remain a persistent view that the sector and those working within it have a relatively privileged status and that there is scope for much greater savings and efficiencies. Addressing this perception is a significant challenge for the sector.

We need to develop an understanding of the efforts made in recent years within the sector to optimise the resources available to it and to enhance it. But we also need to assess recent reforms and innovations and examine what real change and impacts these are bringing.

Similarly we want to challenge the sector to continue to seek out areas for further improvement or deeper engagement.

The consultations we engaged in earlier this year on the role, scale and value of higher education have provided an important context for developing options for future funding. Equally, this consultation process will allow us develop a level of understanding and consensus on the current resource base of higher education and how effectively those resources are being used. I hope all interested parties will avail of the opportunity to engage fully and openly with this process.

Peter Cassells,
Chair, Expert Group on Future Funding for Higher Education

Executive Summary

Expenditure and Investment in Higher Education

How resources are organised and used is a critical consideration in the funding decisions of any organisation. This paper presents an account of the higher education sector based on an examination of changes in funding and investment, emerging policy and practice, and examples and evidence from within the sector.

The paper affirms the achievements of the sector but also points to challenges and areas for further improvement. The purpose of the paper is to support an open, informed and balanced discussion about the way in which this sector works and how it is responding to the need to make optimal use of its resources.

Management

The acid test of an organisational system is always the front line, more than strategy statements and high-level processes; indeed, it is facilitation and support of projects at the front line that constitutes the primary duty of leadership, organisation and management.

This section is written to stimulate stakeholders to give their own account of organisation, management, leadership, accountability, student engagement and morale in their institution, faculty, school or department to identify and to encourage them to discuss the prevailing pattern of leadership, organisation and career support and the challenges which remain to be addressed.

It is also hoped that discussion of front-line experience will prompt reflection on policy, organisation, leadership and management at the level of the higher education institutions and, indeed, pose challenges to be considered in the wider higher education, science, technology and research policy system.

Issues, puzzles and challenges in the organisation and management of academic life, particularly in relation to the changing understanding and nature of the academic vocation and role are considered. This suggests a number of stresses that would seem to have a bearing on resource issues and, more fundamentally, on the degree to which higher education uses its resources to make the greatest possible contribution to society.

Drawing on the work of Futures Ireland project it considers how that wider analysis of innovation and accountability in Irish organisations could be used in thinking about the

leadership, organisation and management of higher education institutions, and the pressures for further change.

Technology

Internationally technology is seen as a key means of transforming higher education and this was reinforced during the Consultation in the first phase of the Group's work. However, it is increasingly recognised that technology is best viewed as a complement not a substitute to academic staff, though it does signal a shift in the fundamental role of teachers. The paper shows that digital technologies are widely used in Ireland (Moodle, Blackboard) and institutions have started to engage with blended learning. A number of centres have been established – Teaching and Learning in the HEIs and the National Forum for the Enhancement of Teaching and Learning— and these are focused at getting more engagement with innovative pedagogies and technologies across the sector.

A key question to consider is whether the scale and pace of change is sufficient and whether the new pedagogies are getting traction outside new centres and digital enthusiasts. In this context, it is worth considering the degree to which the adoption of these practices might be constrained by lack of resources. While technology is often seen as potential means of reducing costs it is clear that start-up or initial costs and ongoing supports which students require may mean that these new approaches are quite resource intensive, certainly in the short-to-medium term. Overall, it seems more relevant to consider ways in which new technologies can support valuable learning, and research and outreach initiatives than to focus on its potential role in cost reduction.

Structural Change

The higher education system is working to re-configure the landscape and organisation of the sector. This involves institutions developing mission statements, performance targets and more recently participating in processes of strategic dialogue about these; and agreeing to be held accountable for delivery against agreed outcomes.

Work is underway on four mergers involving ten institutes of technology, aimed ultimately at achieving the status of Technological University. Teacher education is being consolidated into six centres of excellence. Five regional clusters have been identified which are designed to get institutions to collaborate more closely, both in terms of regional provision and also their engagement with stakeholders in the region. Reviews are taking place in areas like engineering which will inform further changes. Shared services in areas like payroll, IT services and purchasing have been introduced.

The paper puts these efforts, and in particular the new system performance framework, under the microscope. It seeks to engage with stakeholders in the sector on how these major innovations are working in practice.

Funding and Resource Allocation

The higher education sector is responding to the challenge of efficiency and organisation in the way in which it allocates resources. This paper outlines the various ways in which institutions are funded and the models through which funding is allocated within institutions. This highlights some strengths, such as the reliance on a diversity of income sources and the link with high-level objectives and the system of strategic dialogue. It also highlights an important potential weakness in the existing funding system: participation (student numbers) is a key determinant of each college's funding but when overall funds are reducing the quality of undergraduate education can be at risk.

The paper notes that all institutions have internal resource allocation models in place. The models cover the way in which each institution distributes the money it receives in state grants and fees. They allocate these resources to courses, typically cross-subsidising between courses, and to strategic priorities including research. The question of whether this internal allocation model fully supports the four contributions discussed in the Group's first consultation paper is important.

Four Propositions for Consultation

Managements and organisational change: The internal organisation, management, incentives, culture and norms within Irish higher education institutions--having been reshaped by a range of factors and facing further pressures for change--need close attention if higher education is to make its best possible contribution to society in the four ways identified in phase one of this process (high-quality undergraduate education, supporting innovation, meeting employment and labour market needs and promoting wider access).

Technology: New technologies offer opportunities to improve quality and also increase accessibility and meet increased demand from diverse student cohorts but the pace and scale of diffusion seems limited possibly reflecting resource constraints.

Structural change: There is significant policy focus on structural change and evidence that progress is taking place, however there are risks that the desired outcomes and the depth of real change that is anticipated may be more aspirational than real.

Funding and Resource Allocation: Some of the pressures being experienced in the system could be alleviated by modifying the system of resource allocation to and within HEIs.

Introduction

The Expert Group on Future Funding for Higher Education was established in 2014 to identify and consider issues related to the long term sustainable funding of higher education in Ireland and to identify funding options for the future.

The Group is engaging in an extensive process of consultation with a wide range of stakeholders. There are three phases to the consultation:

- **Phase I: Value and Role of Higher Education** — This focused on developing a shared understanding about higher education and its contributions to our society, economy, culture and public life. A summary is provided in Box 1.
- **Phase II: Efficiency and Organisation** — This focuses on the efficiency and optimal use of resources including issues of institutional structures, management, technology and allocation of funding.
- **Phase III: Future Funding Options**—this will focus on long-term funding requirements and funding options for the future.

This paper provides the basis for discussion and consultation in Phase II. It focuses on how resources are organised and used which is a critical consideration in funding decisions of any organisation. It is important to be confident that current resources are being managed to best effect and that the institutions are appropriately organised to achieve their mission before there is any consideration of additional investment. The paper identifies four areas—management and organisation, technology, structural change, and funding and resource allocation—for further discussion.

In discussing the organisation of the sector it is appropriate to consider not only the way higher education institutions—their various faculties, schools and departments—are managed, but also how they engage with the wider system, in which the Department of Education and Skills, the HEA and other bodies are key actors.

In discussion of the sector two contrasting views are often invoked. The first, focuses on single aspects of the sector, such as teaching hours, term lengths or holidays, to suggest that the sector is inefficient and poorly organised. By contrast, a second view focuses on headline measures like the increase in the student lecturer ratio to argue that major gains in productivity have been delivered and that the sector is highly efficient. Both views raise points that need to be considered and addressed. However, both views are partial.

Box 1: Phase 1 Consultation

The first phase of the Group's work sought to achieve a shared understanding about higher education and its contributions to our society, economy, culture and public life. This formed the basis of the first consultation paper published in January.

That paper set out the current financial pressures the system is under, having faced the twin trends of increased student numbers and reduced funding over the last seven years. It also discussed the likely growth in demand for higher education over the next 15 years. In considering the role of higher education, the paper identified four critical contributions that higher education makes to Irish societal and economic development that must be protected and enhanced in any future funding arrangements. We summarise these here:

- First, the quality of higher education courses and qualifications remains paramount. This is the single most important way in which higher education serves its students and the public good. We need graduates who can understand our past, engage with the present and imagine the future. This requires renewed attention not just to what graduates learn, but how they learn.
- Second, institutions need to further adapt and respond to the fundamental changes taking place in innovation and how knowledge is generated. It is helpful to view that as happening through four inter-related spheres—higher education, business, government and civil society. This 'quadruple helix' of interaction and innovation relies on a wide range of disciplines being fully engaged, not just science and technology.
- Third, we require that the system becomes more responsive to the changing needs of our economy, society and public system in the medium and long-term. This means giving more attention to how employability of graduates can be improved and the role of high-quality, informed career advice and support to students.
- Fourth, equitable access to the opportunities of higher education for those from non-traditional backgrounds needs to be improved and resourced sufficiently.

The first consultation paper served as a basis for a wide-ranging consultation process on the role, value and future scale of higher education in Ireland. This involved stakeholders from within higher education (management, staff and students), business representatives, other parts of the education system, Government departments and agencies, community and voluntary groups and public representatives.

This paper for Phase II presents an account of the higher education sector based on an examination of changes in funding and investment, emerging policy and practice, and examples and evidence from within the sector. This shows a sector which is dynamic—in its ability to date to provide a high-quality learning environment, high-quality graduates and excellent research with fewer resources; in its commitment to structural change and new policy frameworks; the new approaches to management; the ways in which it allocates resources; and in its use of technology. In providing this account the paper affirms the achievements of the sector but also points to challenges and areas for further improvement. The purpose of the paper is to support an open, informed and balanced discussion about the way in which this sector works.

The paper is structured as follows:

- **Section A** provides an overview of expenditure and investment.
- **Section B** examines organisation and management structures in higher education institutions.
- **Section C** discusses technology as a key means of transforming higher education.
- **Section D** examines the ways in which the higher education sector is re-structuring in line with national policy.
- **Section E** outlines the methods by which funding is allocated within higher education institutions.
- **Section F** summarises the four propositions and discussion questions.

Section A:

Expenditure and Investment

1.1 Introduction

At the outset, the scale of the sector is an important consideration. The sector itself spends €2.6 billion every year, employs over 23,000 people, has 200,000 students and has an asset base of €8 billion. This is considerable by any measure. The sector has a variety of income streams, with 68 per cent of institutional funding in 2013 coming from public sources and the remaining 32 per cent from private sources, mainly students fees. The scale of institutions within the sector varies; the largest has 25,000 students, while some of the smaller institutions have 3,000 students. Like all sectors, HEIs need to continuously critically examine their operations and seek out approaches that enhance efficiency and effectiveness.

This section provides a factual overview of expenditure and investment in Irish higher education institutions. It outlines how expenditure has changed in recent years and the current sources of income and drivers of costs. Where possible, it examines how Ireland compares to other countries in terms of the level of expenditure on higher education.

It does not consider funding supports directly to students (e.g. maintenance grants), this will be addressed in the next phase of the group's work.

1.2 Financial Position of Higher Education

In the period since 2008, the sector has responded positively to the twin pressures of reduced public funding and staffing resources and increasing student demand. During this period total core income¹ fell by 9 per cent (Figure 1) while the number of students rose by 18 per cent (Figure 2). This has driven considerable productivity gains in simple terms—funding resource per student has fallen by 22 per cent and the staff: student ratio has increased from 1:15.5 to 1:19.5², which is high by international standards.

¹ Core income for the purposes of this paper refers to income received from the State and students which is used for the general operations of HEIs. This amounted to €1.68 billion in 2014 as outlined in Table 1.

² Higher Education System Performance Framework, 2014 Report

Figure 1: Higher Education Core Funding

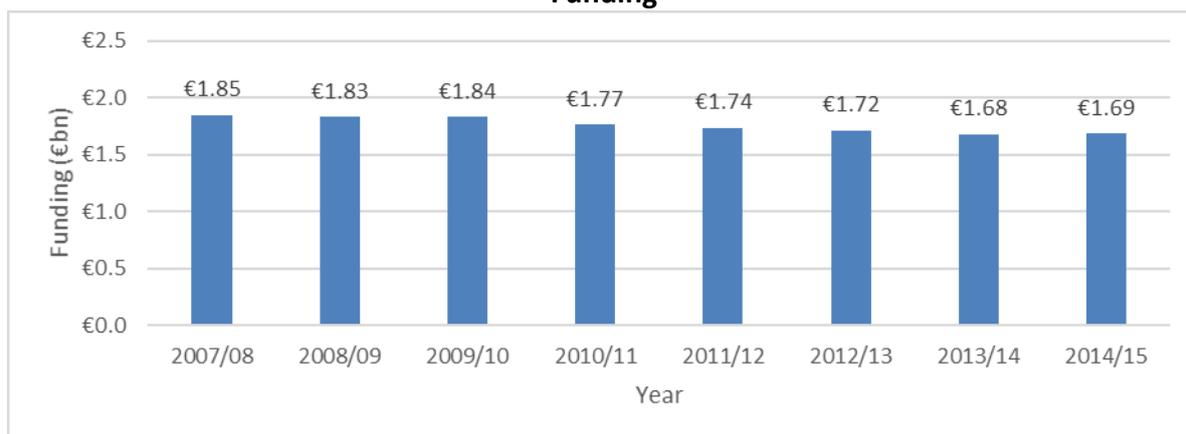
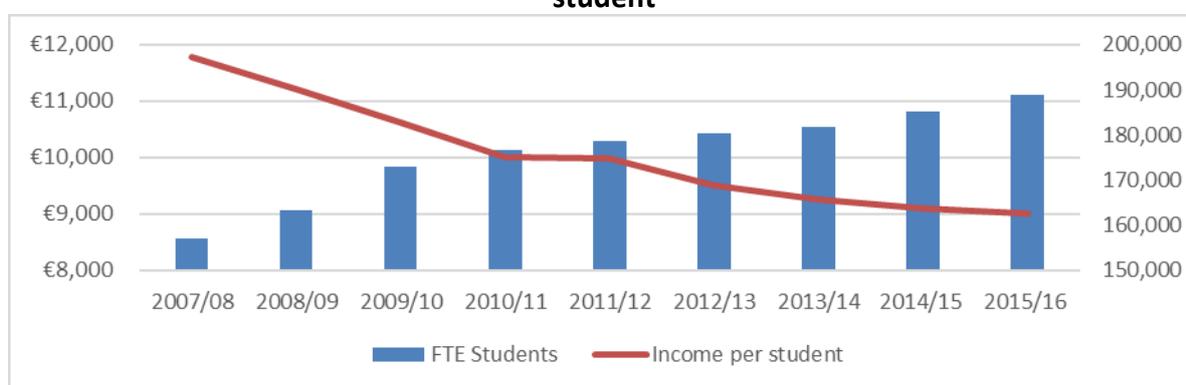


Figure 2: FTE Student numbers and income per student



Despite these unfavourable circumstances, the sector at a system level has maintained a high level of quality. This is evidenced in recent student and employer surveys³. However, when the underlying situation is examined more closely some worrying trends are emerging. The level of reduction in funding allied with the high proportion of fixed pay expenditure in the sector has resulted in some higher education institutions coming close to operating a deficit position. Contributing factors include activities being conducted on an unviable scale (some of which are nevertheless important to their region), the overall scale of institutions, a high reliance on core state funding, and an inability to shed cost at a pace related to a decline in a particular income stream or activity. The mismatch between an annual funding cycle and the multi-annual expenditure commitment involved in mounting academic programmes is also an ongoing challenge. Furthermore, there is now evidence of a rundown of capital infrastructure and financial reserves discussed later in this Section.

³ 80% of all participating students rated their entire educational experience as good or excellent in 2014 national student survey, and Irish students were recorded as being most satisfied with their programme in the recent 2015 Eurostudent survey. The recently published employer engagement survey also points to high levels of satisfaction with the quality of higher education graduates.

1.3 Income Sources

In 2014, total income to the publicly-funded higher education sector was €2.6bn. This includes funding raised from both public and private sources. Table 1 provides a breakdown of the different sources of income in 2014 and a brief description of each funding source is provided below.

Table 1: Funding of Irish Higher Education Institutions 2014

Core Funding of Higher Education Institutions	€1.68bn
Comprising:	
direct state grants (incl. 'free fees' grant)	€0.94bn
Student Contributions paid under State Student Support Grants scheme	€0.16bn
Student Contributions paid by students	€0.18
Other Income and Other Fees (e.g. postgraduate fees., part-time fees, international student fees, repeat students' fees)	€0.4bn
Contract Research Funding (78% State/State agency, 10% EU, 12% Other)	€0.5bn
Ancillary Activities	€0.1bn
Capital Inflows to higher education institutions (70%-80% State grants)	€0.27
Total	€2.55 bn

Core funding of €1.7 billion supports the ongoing day-to-day operations of institutions across all aspects of HE—teaching, research, student supports, libraries, utilities, buildings and grounds maintenance, general administration, external engagement etc. As can be seen from the table, the State, in the form of annual grants to institutions and subventions of student contributions on behalf of some students, contributes €1.1 billion or 65 per cent of the core income of institutions. Students paying the student contribution pay €180 million or 11 per cent and, finally, all other fee income amounts to 24 per cent of total core income. Distribution of this income is in the main at the discretion of the individual institution (See Section 5.3).

The €500 million received as research funding is won on a competitive basis and is contractually ring-fenced for specific time-limited research projects. The majority of research funding comes from national public sources.

Ancillary activities include activities such as student residences and some traded services (for example the virus reference laboratory). These services are operated generally on a long term cost recovery basis.

Capital funding is provided through periodic state capital grants for particular projects based on case by case submissions to the Department of Education and Skills, made in response to the requirements of new developments or health and safety considerations. In the university sector, capital developments are also financed by commercial loans.

While still a predominately publically funded system, institutions have diversified their funding base in recent years, with public funding accounting for just 68 per cent of funding in 2013 compared to 80 per cent in 2011. The primary driver for this has been the year-on-year increases in the student contribution. In discussions on private funding sources, it must be recalled that the majority of non-public income comes in the form of tuition charges and student contributions.

Institutions are pursuing opportunities for income generation including from international education, postgraduate education, philanthropy, international research programmes, and enterprise partnerships. The sector is aiming to grow international student numbers from 7 per cent of the student body to 13 per cent by 2016. This includes attracting greater numbers of students to Ireland and also the development of campuses in other countries. On the research side, institutions already attract significant levels of funding from EU funding programmes and structures and supports are being developed to maximise Ireland's drawdown under the current Horizon 2020 program. Institutions are also developing more and deeper partnerships with enterprise and raising matching funding as part of these partnerships. Philanthropy has proved a valuable source of revenue for higher education institutions in the past and a number of individuals and foundations have been particularly supportive to Irish higher education. At its peak, around €50 million per annum was raised. This is an area of potential and there is a need to examine international practice in this regard, including the targeting of smaller, more regular donations from alumni communities.

1.4 Expenditure Overview

Ireland's expenditure on higher education accounted for 1.5 per cent of GDP in 2011. This is the average proportion of GDP invested in higher education across the OECD and has remained reasonably stable since 2008⁴.

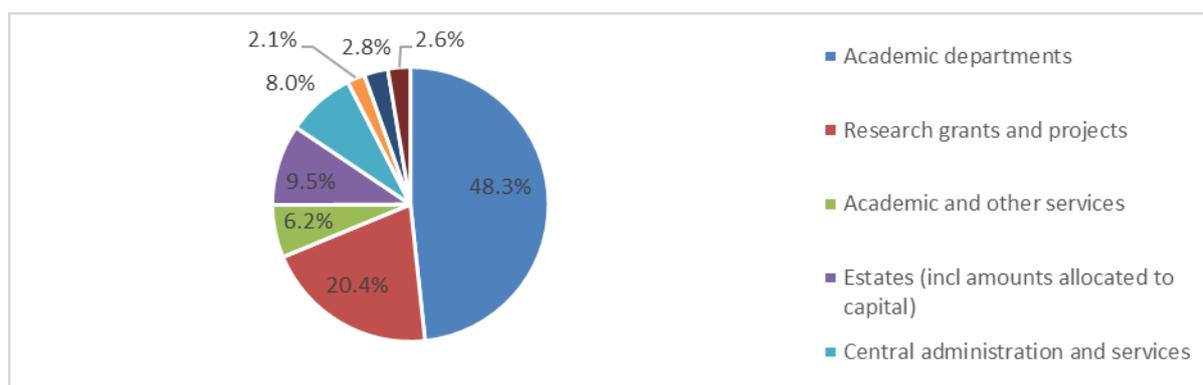
Comparing levels of expenditure in Ireland with other systems internationally is difficult and any figures must be read with caution. They will be dependent on what is included as expenditure, when student numbers are counted and pay levels in the system. That said,

⁴ Education at a Glance 2014 OECD. B2.2—reference year 2011.

OECD published figures for 2011 indicate that Ireland’s spending on higher education is relatively efficient. While expenditure per student per year is above average, cumulative expenditure per graduate (i.e. expenditure per student over the average duration of studies) is 11 per cent less than the OECD average and 18 per cent less than the EU21⁵. This may reflect better completion rates in Ireland. A 2009 study carried out for European Finance Ministers concluded that Ireland has one of the most of efficient and effective higher education systems in the EU using a range of benchmarks⁶.

Figure 3 provides a breakdown of various areas of expenditure. At a very high level, 70% of higher education expenditure is pay related.

Figure 3: Breakdown of Expenditure among Higher Education Institutions (2013)



1.4.1 Pay Expenditure and Staffing Profile

There are over 17,000 full-time equivalent core-funded staff (i.e. funded from state recurrent grants and student fee income), with just over half of all staff at academic grades. There are a further 6,000 non-core funded posts, of which approximately 4,000 are researchers. The majority of researchers employed to deliver contracted research outputs are employed as fixed term workers.

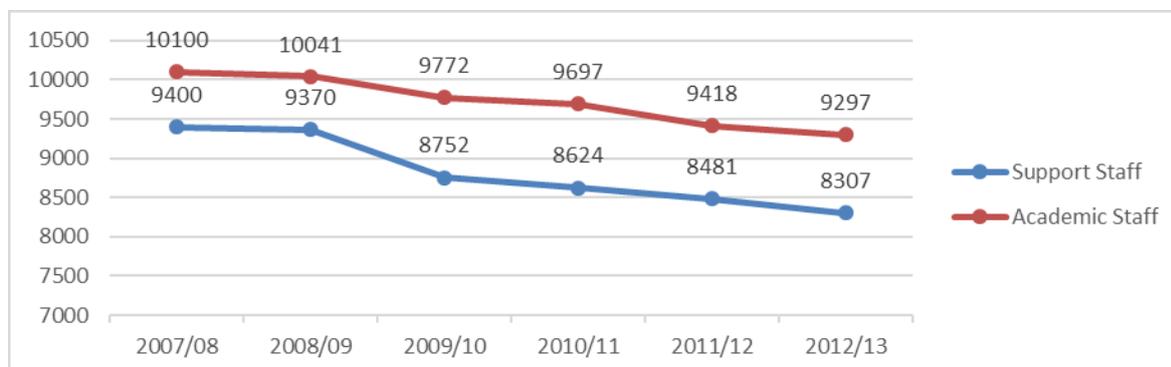
Over 70 per cent of annual expenditure, excluding depreciation is accounted pay related. This percentage has been maintained throughout the period of funding reductions as reductions in staff numbers and pay rate reductions took effect. The composition of the higher education workforce between December 2008 and December 2013 shows an overall decrease of 10 per cent in core-funded staff numbers. Front line academic services have

⁵ Cumulative expenditure per graduate: Ireland - \$52,148, –OECD average - \$58,450, EU21 average - \$63,613

⁶ Study on the efficiency and effectiveness of public spending on tertiary education, Miguel St. Aubyn, Álvaro Pina, Filomena Garcia and Joana Pais, 2009

been protected during this period in as far as possible with 12 per cent reduction in support staff compared to 8 per cent reduction in academic staff (Figure 4).

Figure 4: Staff Numbers—Academic⁷ and Support



There is almost one non-academic staff for every academic staff in the system. This compares favourably with other countries such as the UK and US, where there are high levels of support staff. The balance shifted in favour of more academic staff during the recent period of staff reductions and increases in student numbers.

There are interesting differences in the level and profile of staff in the university and institutes of technology sector, reflecting the diversity of missions in the two sectors. There is generally a more contact intensive model of pedagogy used in the institutes and much of the work of academic administration, student support, access, engagement and internationalisation is carried out by academic rather than by support staff in the institutes. The university sector is much more research intensive with a significant cohort of staff dedicated to supporting this mission.

This results in pay accounting for a higher proportion of expenditure in the technological sector than in the university sector, a lower academic staff:student ratio in the institutes (1:16) than in the universities (1:23), and universities have a higher level of support staff than the institutes.

⁷ Total academic staff numbers here exclude contract research staff **but** they include self-funded academic staff which are outside the ECF restrictions (e.g. staff funded from international and executive education) in order to get a more correct staff student ratio.

1.4.2 Capital Expenditure

The higher education sector has a very significant asset base with buildings with an insured value of €8 billion, in addition to equipment. With the student population growing at an average rate of 1.5-2 per cent per annum and a research base that continues to expand, there is a continual need for the development of additional space and facilities along with ongoing maintenance and refurbishment works.

New capital projects are financed from a number of sources. On the public side, the Department of Education and Skills provides grants for capital projects. In 2014, funding totalled €80 million. The Programme for Research in Third Level Institutions also provided significant funding for the development of research centres over the last fifteen years. On the private side, capital projects have been funded by philanthropic donations and from borrowings. It should be noted that only universities can borrow - institutes of technology are precluded under current arrangements. Total borrowings or long-term commitments in the university sector amounted to €390 million in 2011.

A significant proportion of the ongoing requirement for infrastructure maintenance, minor works and equipment has traditionally been met from recurrent budgets with the balance provided by 'devolved grants' from the Department of Education and Skills for other minor works. This area of expenditure within institutions has been under increasing pressure in recent years due to financial constraints.

Analysis undertaken internationally⁸ indicates that institutions need to invest approximately 2.5 per cent of the total insured value of their building stock on an annual basis in order to meet the needs of maintenance of buildings. In the Irish system, this equates to some €200 million each year. Ongoing equipment renewal and the development of new physical capacity to accommodate the projected growth in numbers will require further investment over and above this amount.

Year-to-year capitals inflows vary depending on projects in development at any given time, but on average capital inflows have totalled between €200 - €300 million per year over the last 10 years. When student numbers are taken into account, the average level of annual capital inflows per student decreased from €2,366 in 2002 to €1,543 in 2011, a decrease of 35 per cent per student. In current circumstances, it will be very challenging for the sector to meet the investment requirement of maintenance and expansion.

⁸ Review and Prioritisation of Capital Projects in the Higher Education Sector, 2004 HEA (Kelly) report to Minister for Education and Science—page 69 quoting Royal Institute of Chartered Surveyor's Building Cost Information Service Limited.

The overarching conclusions from the 2010 HEA Space Survey on the current state of buildings was:

- The higher education sector has stretched itself significantly to accommodate an increasing student population at both third and fourth levels along with also increasing numbers of part-time students at all levels. This has been achieved largely on the strength of highly efficient space utilisation.
- Space provision within the sector is seriously inadequate. Around 39 per cent of the existing space is not of an appropriate standard—this is an average so the proportion is higher in a number of HEIs.
- A significant proportion of the sector’s space is either rented or prefabricated.
- Current significant infrastructure deficits will be exacerbated by expected future demand.

It is a principle of accounting that capital grants used to fund the purchase of assets are extinguished from balance sheets over the lifetime of those assets by being released back into the annual financial statements as non-cash income. In a way, this balances the non-cash expenditure item that is depreciation. But unless institutions compensate for this treatment in one of two ways, either by generating a level of annual surplus sufficient to maintain their assets or by receiving a continuous stream of new state capital grants, they must inevitably run down the asset base. In the UK funding system there is an explicit requirement in the financial governance arrangements imposed on HEIs that they must generate sufficient surplus to maintain their asset base. In Ireland, the system implicitly relies predominantly on a stream of new capital grants becoming available. In the current environment of reduced public capital funding to the sector, there is an increasing risk that the asset base is being run down.

1.5 Drivers of Cost

Drivers of costs in higher education are complex and a range of actors are involved in influencing them and in many ways they are outside of the control of higher education institutions. Some of the key drivers of costs are highlighted in this section.

Significant drivers of average costs *per student* for a given level of student numbers are the ratio of pay to non-pay, the mix of disciplines, the mix of research and teaching, staff student ratios, and the extent of the physical infrastructure of the campus. When considering the average costs *per graduate*, additional drivers of costs include completion and progression rates and duration of course. It is arguable that the focus of the system needs to move more from costs per student to cost per graduate.

As stated earlier, pay accounts for a high proportion of operational costs. Within the pay base costs are driven by pay rates, staff numbers and the composition of the workforce by grade and pay band. Pay rates are externally determined through central negotiation of public sector pay agreements and are effectively a given.

Staff numbers would generally be driven by student numbers (driven by demographics and the overall level of participation) on the assumption that staff student ratios should be maintained at a given level. This has not been the case in recent years and student numbers have not been a cost driver overall. Staff student ratios in turn are broadly driven by discipline, by the composition and diversity of the student body which can influence pedagogies and the level of student support needed, and by whether a programme is research or taught based. Research-based students generally interact with staff in small groups and are highly resource intensive. Laboratory-based programmes require more staff contact in smaller groups than classroom-based programmes.

Internationally, the trend has been to recognise only the very high-level drivers of costs in funding allocation models—that is the composition of the student body by discipline mix and by mix of taught and research students, together with varying degrees of recognition for access and for part-time students. This is reflected in the Irish model as discussed in Section E.

1.6 Managing Costs

Important issues in managing costs are the degree of variability of costs and the systems in place for tracking, allocating and recovering costs. Achieving financial sustainability in institutions depends on the ability to recognise, understand and recover the full economic costs of operating on a long-run basis. Managing tensions between academic and financial sustainability in higher education institutions is complex and decisions about what activities to take on or prioritise must be supported by good cost data.

To this end a Full Economic Costing system (FEC) was introduced in the universities in 2009. It is an activity based costing model and has been used to manage costs in the context of ongoing reductions in unit funding but also to demonstrate capital costs and the full costs of research activity. The Irish FEC model was informed by the Transparent Approach to Costing (TRAC) model developed as part of the UK financial sustainability strategy for higher education some ten years earlier.

It was intended to help HEIs improve strategic and operational decision-making around the costing and pricing of their activities and to provide funders with reliable cost structure data on the activities they fund. The areas of most concern were the need for the system to understand the scale of indirect costs associated with research and to recover these overhead costs; and the need for the system to drive efficiency, generate income and

manage costs so as to sustain the quality of undergraduate teaching and supports, deliver value for money and generate adequate surplus from operations to maintain infrastructure. The model has been successful in delivering transparency and broad acceptance of the indirect cost rates associated with research activities and some progress towards recovery of these costs has been made through agreement with research funders. The FEC also helps institutions to properly assess new programme proposals and adopt appropriate pricing strategies for international and ancillary activity. It has provided cost relativity data which inform both the HEA core funding model and HEI models of internal resource allocation. It has helped drive efficiency and most institutions have absorbed reductions in unit funding without incurring operating deficits. It has informed decisions about necessary supports or cross-subsidies for important subject areas that could otherwise be vulnerable to discontinuance on the basis of their unit costs.

Data emerging from the FEC system and balance sheet analysis would suggest that costs are not being systematically recovered in relation to research and capital infrastructure and are placing further pressures on institutional financial sustainability.

Section B:

Management of Higher Education Institutions

2.1 Introduction

The acid test of an organisational system is always the front line, more than strategy statements and high-level processes; indeed, it is facilitation and support of projects at the front line that constitutes the primary duty of leadership, organisation and management.

The aim of this section is to stimulate stakeholders to give their own account of organisation, management, leadership, accountability, student engagement and morale in their institution, faculty, school or department to identify and to encourage them to discuss the prevailing pattern of leadership, organisation and career support and the challenges which remain to be addressed.

It is also hoped that discussion of front-line experience will prompt reflection on policy, organisation, leadership and management at the level of the higher education institutions and, indeed, pose challenges to be considered in the wider higher education, science, technology and research policy system.

2.2 Current Systems of Management and Leadership

Higher education institutions are significant in scale and complex in terms of their mission and objectives. A high level of professionalism and competence at management level is required to ensure the strategic and effective management of the institution across all areas of activity. This is a constant theme across all the areas examined in this paper--structural change, academic provision, asset management, resource allocation, people management--and more generally in responding to the challenges of the last seven years.

Institutions are striving to be excellent on many fronts—teaching, research, commercialisation, external engagement—and internally they are seeking to be more effective in terms of costing activities, workload allocation and performance management. The successful delivery of all of these objectives requires a high level of staff commitment and moral at the front line as well as effective leadership and management. A central challenge, and a central question for discussion in this second consultation, is what form of leadership and management is appropriate and effective in meeting the goals of higher education as discussed in the first consultation paper.

2.2.1. Top Level Structures and Leadership Team

Most higher education institutions have a Governing Body or Board, which bears ultimate responsibility. At the top of each HEI is a senior executive team led by the President of the Institution. While arrangements and titles differ across institutions, other members of the executive team generally comprise a Vice President (VP) for Academic Affairs/Registrar, VP for Finance/Bursar (CFO), VPs in other functional areas such as research, strategic development, HR, and finally on the academic side Deans/Heads of the institution's main divisions, variously known as faculties or colleges. Senior management teams generally number in the region of 10 people. These have become more significant in the past decade or two. Some of the issues concerning the internal management of higher education institutions relate to this level and the next layer down (described below).

2.2.2. Faculties, Schools, Disciplines and Research Units

Most higher education institutions are divided into a small number of faculties or 'colleges', a somewhat larger number of 'schools', within which sit disciplines or departments. In addition, there are research units and research centres, some of which cut across these entities and can, indeed, contain staff from different higher education institutions. The management structure and process reflects these structures. Faculties are headed by Deans, who generally manage allocation of resources to the schools and disciplines/departments within the faculty. A school (usually consisting of a number of related disciplines and departments, but sometimes just one) has a Head of School drawn from one of its disciplines/departments. There are also heads of department or discipline which play an important role in designing, managing and grading degree and diploma programmes. The posts of dean/head of colleges, head of school and head of disciplines/departments are key leadership posts within institutions. While departments and disciplines were traditionally headed continuously by the permanently appointed chair/head, it is now common, especially in the university sector, for the role of headship of discipline and wider schools to rotate every three years or so. As discussed below, some of the main issues and challenges in the organisation and performance of higher education institutions would seem to relate to availability, quality and effectiveness of leadership and management at these levels and way in which this is supported by higher-level institutional and management systems.

2.2.3. Academic Contracts and Workload Management

Staff in the publically funded higher education institutions are public sector employees, and formal processes of pay determination and employee relations management are positioned within the wider public sector management arrangements. Academic staff are in the main permanent employee, although the employment of some lecturers on fixed-term and part-time contracts has always been a feature of the system. The majority of research staff are on fixed term contracts.

The national higher education strategy sought to retain the autonomy and flexibility with which the sector could manage its own resources in tandem with greater levels of accountability. However, in a radically changed economic context, greater levels of central control on pay and numbers were introduced since 2009 to assist with the correction in the public finances. The Department is engaging with both universities and institutes of technology in relation to the development of enhanced HR “toolkits”.

There are differences between the basic academic contract in the university and IOT sectors in Ireland. This reflects the evolution and diversity of the two sectors. The university sector has a more open contract which relies on effective workload management models to ensure delivery of contractual obligations and to manage the balance of expected workloads as between teaching, research and other duties.

In the institute sector, as in the new universities in the UK, teaching contact loads are specified within the employment contract itself with offsets against these loads then agreed individually to allow for research, academic administration and other work to be carried out. Depending on the grade, lecturers are contracted to deliver a weekly norm of up to a maximum of 18 or 20 hours per week over a 35 week year. In Ireland work practices have built up by agreement under which the academic year ends on 20 June and Institutes substantially close for the summer period similar to post-primary schools. Reforms in the technological sector and the strengthening of the research mission of prospective technological universities is likely to require differing working arrangements to reflect the range of academic activities.

A significant degree of self-management in relation to academic workloads is expected as a norm in higher education at the level of the individual academic staff member. But accountability for effective management of its workforce is also expected of the institution.

IOTs have a structured teaching load built into academic contracts of employment. In addition, each institute has a framework by which it allocates “teaching hours” to other academic activities, e.g. research, PhD supervision etc, and which can then be offset against teaching duties. Universities do not have the same structured approach, and responsibility for workload management is generally delegated to academic units. More structured approaches to academic workload allocation is becoming the norm internationally, and formal academic workload allocation (AWA) models have now been developed in nearly all HEIs as part of the Croke Park public sector agreement.

The objective of workload management is to contribute to an environment that supports the fair and transparent allocation of workload across an institution along with the

investment in and development of staff⁹. AWA models provide an important management information tool:

- enabling appropriate reporting on academic activities and overall workload of academic staff internally and externally;
- facilitating equity in distribution of workloads; and
- providing a formal mechanism for interactions between staff and managers.

In addition, these processes give visibility and transparency to the extent and variation of an academic's day-to-day duties – something that can often be misunderstood in the wider public.

The HEA undertook a detailed review of developments in academic workload allocation in 2014. This review reported significant progress and constructive engagement on the part of institutions and staff. However it cautioned that the development of different institutional approaches and the absence of common standards was impeding the transparency of processes and recommended further work to align approaches across the sector and better integration with other management tools such as full economic costing and timetabling processes.

It should be noted, that AWA models are only concerned with the allocation of a staff member's time across the various activities of an academic and must be complemented by appropriate performance review and career development processes. To meet the diverse goals that higher education institutions, departments and individual staff must aim for, there is clearly a need for appropriate systems of individual goal setting, review and career developments supports. Specific initiatives to support female academics throughout their academic careers are also necessary and there are a number of developments underway in the sector in this regard. Evidence and perspectives on the nature and extent of this in different higher education institutions—and, indeed, in different parts of any one institution — is varied, as we discuss below.

⁹ HEA Review of Workload Allocation Models in Irish Higher Education Institutions, 2014

Box 2: Academic Workload Allocation – An Example

The institutional model has been designed to measure academic workloads in terms of the currency of lecture units of teaching. The Lecture Unit is based on the delivery of a 5-credit lecture module (i.e. 24 lectures plus preparation and interaction with students). This Lecture Unit is assessed to be equivalent to an actual time-based workload of 72 hours.

Academic activity is identified under a comprehensive listing of activities across four categories:

- Teaching
- Research
- Professional Academic Service
- Academic Administration

All academic activities are quantified in terms of the LUE following extensive consultation and testing. Two activities are pre-allocated a defined number of LUEs [General Research (3 LUE) and General Administration (2 LUE)]. Aside from this, staff have flexibility to identify how their total number of LUEs are distributed across teaching, research and service, subject to validation and sign off by their Head of academic unit.

Once a year, members of academic staff complete an electronic form, providing details of their academic workload – this form supports both the AWA and FEC processes in the institution. These are submitted to the Head of School/Department who then engages with the staff member on the submission. Each approved submission automatically feeds into an Academic Unit Summary. This Academic Unit Summary is then made available within the Academic Unit, and aggregate data per College & per Unit are published and disseminated.

2.3 Issues and Challenges in the Organisation and Management of Academic Life

This section is designed to support discussion about the way in which day-to-day work, innovative projects, professional development and collective morale is managed in Irish higher education institutions. This is relevant because it is evident that a range of issues and stresses are reported and these would seem to have a bearing on resource issues and, more fundamentally, on the degree to which higher education uses its resources to make the greatest possible contribution to society in the four ways identified earlier. As noted above, and discussed further below, the focus is as far as possible on how things operate at the front line.

2.3.1. The Changing Understanding and Nature of the Academic Vocation and Role

There are a range of stresses that when combined are resulting in pressure on the quality of engagement with students and variable morale among academic staff. These include organisational resources to support academic staff in their core function of high-quality education and research, an increasing proportion of contract staff with highly uncertain career prospects, the sheer scale of growth in student numbers, the depth and nature of human resource management and mentoring available to academic staff, the weak incentives to take up leadership and organisational roles, and difficulties in getting work load allocation systems working smoothly and in a way that complements a system of goal setting and assessment. It is also worth considering the impact that national policy objectives and institutional strategies have on the front line. This inter-relationship could take several different forms. One view is that the various actors in the higher education system are acting more-or-less rationally in response to changed incentives created largely by changes in national funding and policy. For example, the increased emphasis attached to research performance nationally and the availability of research funding has given academic units and staff incentives is to down-play and, in some cases, buy-out their teaching responsibilities.

While the stresses and gaps we tentatively identify mostly refer to possible conditions at the front line, a discussion of their actual prevalence and severity might prompt reflection on policy, organisation, leadership and management at the level of the higher education institutions and, indeed, pose challenges to be considered in the wider higher education, science, technology and research policy system. Below we argue—drawing on earlier work on innovation, accountability and organisation—that the acid test of the system is always the front line, not strategy statements and high-level processes; indeed, it is facilitation and support of projects at the front line that constitutes the primary duty of leadership, organisation and management.

Within a long-influential idea of higher education the individual academic has a high sense of vocation and identification with their discipline. This vocation and identity inherently involves a willingness to undertake a diverse range of activities—teaching, research, mentoring, organisational duties, good-citizenship within the institution and service to the discipline beyond the college and, indeed, beyond any one country. While this required significant freedom and autonomy, the shared understanding set limits to which the focus was on individual achievement and advancement. An understanding of the history and scale of inquiry and scholarship in a given discipline ensured that individual achievements were kept in perspective. It also meant that at the heart of the work was an awareness that the greatest contribution is often the nurturing of the next generation of those in the discipline.

This shared understanding and set of expectations had and still has a number of implications for the way work was organised and managed. It is worth identifying these, since they seem to be relevant to current stresses and challenges.

One was that a fairly high degree of autonomy and self-direction was assumed. In a sense the autonomy or freedom was more apparent to outsiders than real, since academic workers were deeply enmeshed in relationships of duty and reciprocity to students, peers and, the word is instructive, their *discipline* or field of knowledge and inquiry.

The second implication further qualifies any idea of simple autonomy. Academic careers can offer profound intrinsic and extrinsic rewards, but they also contain volatility and risks. In part these arise from the inherent uncertainty of scholarship and research—the dark forests, false leads and serendipity that are inherent in all genuine inquiry. This is reinforced by changes in the research funding environment—including increased competition for funding and changing funding streams and priorities. Consequently, academics and researchers need significant support, mentoring and guidance if they are to be resilient and creative in the face of the changing course of their work and collaborations.

A third implication is that, in this context, it is generally necessary that leaders of academic workers are held in high regards as members of the discipline. The effective exercise of legitimate authority was usually dependent on the high standing of a head of department, school or faculty within the field. This was traditionally understood to imply that importation of line-management models from other business organisations, particularly the Fordist enterprise or divisional corporation, is not appropriate and would not be effective. But other types of organisation, such as professional partnerships or creative projects, were recognised as somewhat similar; indeed, with the proliferation of new organisational models in business and elsewhere, there are many similarities and learnings than can be, and are being, explored.

The issues and stresses listed above derive in part from the fact that the shared understanding of the academic vocation, outlined above, for a number of reasons has weakened. It is proving difficult to find academics who will take up leadership and

management roles, such as dean, head of school and head of discipline. Among many these leadership posts are seen as onerous and thankless, and a diversion from pursuit of individual research funding and publication. There is a perception that the institutions do not value or reward this work and offers little support to those acting as head of school and discipline. Some suggest that there is insufficient emphasis on, or support for, development of the capabilities required for leadership and support of academic staff. More broadly, there is a sense that the shared understanding, which included strong elements of collegiality and service to the collective, has been replaced with a more individualised set of incentives and ethos. On top of the decreasing staff:student ratio, this would seem to be part of what lies behind the pressures on the quality of undergraduate programmes, engagement with students and the availability of small-group learning environments.

Consequently, there would seem to be a need for discussion and clarification of what appropriate high-quality, leadership, management and mentoring of academic staff looks like. Indeed, clarification of these roles and providing better supports at these levels, and developing recognition across the organisation of the importance and value of these posts, seems to be one of the most important organisational issues in Irish higher education.

In a context where the earlier shared understanding of the academic role has weakened, institutions need to more consciously develop support structures and career development opportunities that nurture leadership and management capabilities early in careers and deep within the institutions. Institutions also need to ensure that the holding of a leadership post does not negatively affect an academic's career. Within limits, financial incentives may also have a role in rewarding those who assume these roles; although some would argue that use of difference in financial rewards as an incentive tool may be counterproductive since it can further erode the shared understanding upon which contribution to collective purposes and support of peers, junior colleagues and student ultimately depends.

In a related vein, the Irish University Association is undertaking an interesting project on the nature and challenges of leadership in higher education. It is looking at both governance issues, related to accountability, and the management of work and careers. A key challenge that has been identified is how to avoid the sense that models of management in the sector create a sense of 'them and us'. A move towards a system which is both efficient and retains its ability to be innovative is required. At present it seems that more managerial and corporate dimensions are accepted as being part of the governance and management of the sector either as a 'necessary evil' (threat to institutional autonomy and academic freedom) or simply the way of the modern university to enable it to survive in a higher education environment where survival can no longer be assumed.

One aim of the IUA project is to help the higher education institutions develop a new working culture which has a greater sense of 'we'. At the heart of such an approach must be an acceptance of the role and value of the full range of disciplines, as argued in the Expert Group's first Consultation paper. It also depends on a broader view of innovation—not new

scientific knowledge drives innovation in industry — but a focus on the way four spheres— (university, business, government and civil society) overlap and interact. As we noted in the first Consultation paper this ‘quadruple helix’, found in leading firms such as Intel¹⁰ and the most effective national innovative systems, involves networks of cooperation addressing the kind of complex economic, technical, social and environmental challenges that are now widespread. Acceptance of this world view can be and must be the stimulus for how the sector will be managed and organized. This would see the sector trying to re-draw boundaries not just focus on how existing silos —for example academic, corporate and business— could be integrated.

2.3.2. Drawing on the Wider Analysis of Innovation and Accountability

In thinking about the complex changes that have occurred in the leadership, organisation and management of higher education institutions, and the pressures for further change, it is useful to draw on wider analysis of innovation and accountability in Irish organisations. The FuturesIreland project examined the conditions that would support Ireland’s transition to a learning society. The project was undertaken, between 2007 and 2009, by the NESC Secretariat at the request of the Department of the Taoiseach. It collected the story of over 180 individuals and organisations that were identified as innovative¹¹. These stories, and their analysis by a high-level advisory group, throw considerable light on aspects of innovation, organisation and process that seem relevant to the challenges now faced in higher education. The main findings of the Futures Ireland project are summarised in Box 3.

Box 3: Main findings of the Futures Ireland Project

- **Finding 1:** New forms of cross-fertilisation between the economy, society and public governance are increasingly evident, enhancing the ability to learn and innovate;
- **Finding 2:** Innovation and learning are systematic, almost always combining initiative, disciplined review and a willingness to confront challenges at three levels—institutional, inter-personal and personal;
- **Finding 3:** Systematic review and reflection on both successes and failures provides the basis for both innovation and accountability, which is particularly relevant in a period when we seek more stability and accountability and yet face radical change;
- **Finding 4:** The kind of innovation and learning found in the wide-ranging case studies cannot flourish, and cannot yield their full harvest, without profound change to our organisational systems, particularly our systems of control and accountability in the public sector.

¹⁰ Martin Curley VP Intel Labs , Presentation, to IIEA, Dublin Castle, November 2012, www.iiea.

¹¹ Indeed, the cases included an creative response to the challenge of large class sizes in undergraduate courses in English literature in NUIG.

The findings and analysis of the Futures Ireland project may be helpful in the discussion of the organisation and management of higher education institutions in several ways, some of which are distinctive. Implicit in the findings taken together is a strong injunction: to assess the nature and quality of national or institutional strategy, organisation and management, in particular their promotion of innovation, look to the front line. This is critical every way one looks at it. If it is not happening at the front line, ground level, work of the education institution, then it is not happening.

In the case of higher education, it is in the lecture hall, lab practical, tutorial (where they exist), research process and supervision, departmental meeting, involvement of staff with scholarship, students and outside stakeholders, staff morale and their willingness to contribute to the collective as well as pursue their individual careers, that we will be able to judge the effectiveness of strategy, organisation and management.

The first finding, concerning the increasing prevalence of cross-fertilisation between the economy, society and public governance will come as no surprise to most in higher education and is captured in the 'quadruple helix' process of innovation discussed in the Expert Group's first consultation paper and process. It is worth thinking about the relevance of the second finding, especially the way in which innovative organisations are willing to confront challenges at three levels—institutional, inter-personal and personal. How are Irish higher education institutions in this regard? The third finding, that the same close attention to front line outcomes and challenges that provides the basis for innovation can also support accountability, is probably widely recognised by staff in higher education. They are, by nature close observers, not only of the phenomena they study, but also of their own progress, their students and their impact. The question might be whether the organisational arrangements, systems of accountability and incentives put in place by the institutions—and, indeed, by the national policy system—are as attuned to this as they might be. What outcomes and processes are front line encouraged and incentivised to closely watch and reflect on? In the case of the fourth finding—concerning the way in which existing organisational systems, especially in the public system, prevent a full flourishing of learning and innovation—it will be interesting to gather the views of those in the higher education system. Is higher education different from other parts of the public system? In the wider system, the problem identified in the Futures Ireland report is that there is too much micro-management and control from the centre, and not enough freedom to innovate at the front line (combined, ironically, with weak accountability). In higher education, there has traditionally, and correctly, been a lot of autonomy and discretion at the front line. Is this still so? Is the weakness in higher education possibly the opposite: that there is a lack of engagement with and support for individual efforts and career development? That staff of more under-managed and supported, rather than over-managed? It will be interesting to gather the experience and perceptions of those in higher education.

2.4 Management of Higher Education Institutions: Proposition and Questions

Proposition 1: Management of Higher Education Institutions

The internal organisation, management, incentives, culture and norms within Irish higher education institutions—having been reshaped by a range of factors and facing further pressures for change—need close attention if higher education is to make its best possible contribution to society in the four ways identified in phase one of this process (high-quality undergraduate education, supporting innovation, meeting employment and labour market needs and promoting wider access).

The following questions will help probe this proposition:

- What does high-quality leadership, organisation and management of academic staff and units look like?
- How have national strategies and policies—for higher education, technology and research—influenced the internal organisation, structure, management, incentives, balance, culture and norms with higher education institutions?
- Is there a relationship between the new compacts between the HEIs and the HEA and the internal organisation and management of the institutions? What visibility and influence does an institution's compact have on the activity and projects of faculties, schools departments and individual staff?
- What is the extent and quality of support for individual career development, goal-setting and performance review within Irish higher education institutions?
- Cognisant of the requirements of Government pay policy, is there a case for higher education institutions having more freedom in relation to recruitment, pay determination, redundancy, and contract flexibility?

Section C: Technology

3.1. Introduction

Technology is a key means of transforming higher education. This section looks at three issues:

- Technology as an enabler
- Developments in Ireland
- Technology and cost.

The final part of this section proposes a proposition and a number of questions to help probe the degree to which the role of technology in Irish higher education might underpin further improvements in efficiency and organisation.

3.2. Technology as Enabler

There has been extensive debate on the growing role of digital technology in higher education over the last decade, with it often cited as one of the key determining forces shaping the future of higher education. Like in other sectors, technology is viewed as offering a means to enhance quality and accessibility, and as a tool to better meet the needs of users, in this case students.

MOOCs¹² have instigated much of this recent discourse on technology enabled learning. The number of MOOCs offered worldwide has increased exponentially in recent years with elite US institutions such as Stanford, Harvard and MIT at the forefront of developments. Latest estimates report that there are now over 400 universities worldwide offering some 5,400 MOOCs to nearly 20 million students¹³. The initial hype surrounding MOOCs has abated and the predictions that they herald the end of traditional degree programmes has become more nuanced. However the potential that online learning more broadly can offer for opening up access to higher education, supporting lifelong learning and enhancing the quality of teaching materials remains.

There is a general consensus that technology can have a positive impact on the quality and effectiveness of teaching and learning in higher education—a theme that came up strongly in January’s consultation forum. That is not to say that technology can replace teaching or teachers, but it can enhance the learning experience. Technology provides lecturers with

¹² Massive Open Online Courses (MOOCs) are online courses that are accessible free-of-charge to anyone with openly available course materials. They tend to be short in duration.

¹³ Edsurge.com

access to a wider range of teaching materials, enables the development of more interactive teaching approaches, and can free up class time for engagement as opposed to knowledge dissemination. Technology is also forcing a shift in the role of the lecturer with the widespread availability of information online. As noted by Ernst and Young, “Teaching methods have to change. We can’t rely on delivering content anymore—it’s all about contextualisation, ways of thinking, and the student experience”¹⁴.

The data generated by online learning and online interactions is also providing institutions and lecturers with the means to better monitor student progress, customise teaching tools, and develop more personalised learning pathways for students. This can be particularly effective at identifying at-risk or underperforming students and assisting in retention efforts.

There is also general consensus on the potential of technology to open up higher education to a wider and more diverse student cohort. Online delivery of programmes will especially have an impact for part-time and non-traditional learners, continuous professional development and lifelong learning, and postgraduate provision. It also has the potential to provide a more effective means of scaling-up provision to meet predicted growing demand, especially for the aforementioned cohorts, while recognising that online learning is not for everyone.

3.3. Developments in Ireland

In Ireland the potential of digital technology is reflected in the *National Strategy for Higher Education to 2030* which states, “In the coming decades, the delivery of higher education must be characterised by flexibility and innovation. [...] While campus-based learning will continue to play a major role in higher education, the institutions will have to accommodate and serve the needs of an increasingly diverse student body, many of whom will need to engage flexibly with higher education.”¹⁵

Digital technologies are to some extent already widely used across the Irish higher education system. They provide the bedrock for back office activities and are also used widely for sharing information and engaging with students through virtual learning platforms like Moodle and Blackboard. These platforms in particular have been significant in developing an openness towards technology among academics as they have become embedded and routine. In more recent years, institutions have started to engage more innovatively with technology to support on-campus teaching through “blended learning” approaches, and in developing more diversified delivery modes and online provision. At present, XX per cent of students are “off-campus”. Teaching and Learning Centres in HEIs provide central hubs for developments internally in institutions and the National Forum for

¹⁴ Ernst & Young, University of the Future

¹⁵ Department of Education and Skills, *National Strategy for Higher Education to 2030* (Dublin: DES, 2011), 54.

the Enhancement of Teaching and Learning in Higher Education is providing a system-level infrastructure for the enhancement of the student-learning experience. It is specifically charged with 'the enhancement of engagement with innovative pedagogies and with the technologies that support these' and with enhancing flexibility in the delivery of higher education programmes.

It is fair to say that like in many other countries, developments to date in the Irish system have been driven by bottom-up activities as opposed to sector-wide or institution-wide initiatives and haven't reached the realm of mainstream yet.

As a response, the National Forum for the Enhancement of Teaching and Learning in Higher Education published a Digital Roadmap in early 2015 which sets out a national framework for developing digital capacity in the sector¹⁶. The Roadmap calls for strategic developments at a national and institutional level, greater collaboration across the sector, a focus on digital literacy of staff and students and on associated pedagogies. Implementation will be supported by targeted funding from the Forum. The Forum is also undertaking a project with the IUA and IOTI specifically examining infrastructure needs across the sector.

Box 4: Technology Examples

- NUIG have 10–12,000 mobile log-ons to their blackboard system per day
- Over 15,000 people registered for the TCD MOOC on Irish Lives in War and Revolution: Exploring Ireland's History 1912-1923.
- DCU established the National Institute for Digital learning in 2013 as a centre of excellence to pioneer major developments in online, distance and blended learning.
- Online education has become a central mission of IT Sligo; it currently offers in excess of 45 online programmes to 1,400 students both nationally and internationally.
- Hibernia College was the first online college accredited in Ireland and has pioneered the development of undergraduate and post-graduate qualifications.

3.4. Technology and Cost

The perception is that online provision is cheap, the reality can be different. Online courses are no less time intensive to prepare than conventional programmes and require significant input from academics and technologists.

There can also be considerable start-up costs involving new equipment, and staff training. Research shows that where e-learning has developed successfully, institutions "were able to

¹⁶ <http://www.teachingandlearning.ie/priority-themes/mapping-digital-capacity/>

find substantial funds to kick-start the integration of technology for teaching and learning”¹⁷.

Appropriate supports must also be built into the programme to ensure students are adequately supported throughout the course—both from lecturers but also mechanisms to allow peer support.

Therefore, while the use of online tools and online provision should lead to economies of scale in the long run, the development of digital capacity in the first place will require investment and ongoing running costs should not be underestimated.

3.5. Technology: Proposition and Questions

Proposition 2: Technology

New technologies offer opportunities to improve quality and also increase accessibility and meet increased demand from diverse student cohorts but the pace and scale of diffusion seems limited possibly reflecting resource constraints.

The following questions will help probe this proposition:

- What are the ways in which new technologies can support valuable learning, and research and outreach initiatives?
- Is the scale and pace with which technology is being embraced across the sector sufficient; or is it confined to teaching and learning centers and digital enthusiasts?
- Is the adoption of these practices being constrained by lack of resources?
- What can be learned from national initiatives such as those undertaken by the National Forum and how can these be complemented at institutional level?
- If higher education institutions do not embrace the potential offered by technology could outside interests shape the future landscape?

¹⁷ Bates, A & Sangra, A., *Managing Technology in Higher Education: Strategies for Transforming Teaching and Learning*, 2011

Section D: Structural Change

4.1. Introduction

This section examines the ways in which the higher education sector is re-structuring. It highlights policy developments and provides some insights from practice in four key areas:

- Institutional Architecture
- Relationship between the State and higher education institutions
- Academic Provision
- Shared services

This provides a basis on which to discuss the degree to which these major policy developments are impacting on practice. The final section of this paper outlines a propositions and a number of questions to help probe the degree to which these issues might be further enhanced.

The 2011 National Strategy for Higher Education provided the blueprint for a new chapter of reform in Irish higher education with the overarching aim of *'developing a coherent set of higher education institutions, each of significant strength, scale and capacity and with complementary and diverse missions that together meet individual, enterprise and societal needs'*¹⁸. That Strategy set in motion two major change processes in higher education. The first relates to institutional architecture where there is extensive consolidation underway, particularly in the teacher education and technological sectors, and new structures for engendering deeper levels of collaboration, specifically at regional level through new regional clusters of institutions. The second relates to the relationship between the state and higher education institutions and which has led to the development for the first time of a set of national objectives for higher education and negotiated performance contracts between the HEA and HEIs. Both processes seek to enhance overall performance of the system through developing greater coherence and cooperation while at the same time protecting diversity. Institutional autonomy remains a core tenet of national policy, complemented by appropriate levels of accountability and new incentive mechanisms to drive national objectives.

¹⁸ National Strategy for Higher Education to 2030—DES 2011

4.2. Institutional Architecture

In May 2013, the Minister for Education and Skills approved a re-configuration¹⁹ of the higher education system. The planned reconfigured landscape includes inter-institutional mergers, research consolidation, and national and regional collaborations.

Institutional mergers are concentrated in the technological and teacher education sectors. In the technological sector, there are plans for four mergers involving ten institutes, aimed ultimately at achieving the status of Technological University. Technological universities will be institutions of scale that should be able to compete internationally but without loss of the traditional mission of the sector. Remaining stand-alone IOTs will form strong partnerships with regionally based universities. In initial teacher education, nineteen providers are being restructured and consolidated into six centres of excellence based in universities. This involves some full-scale mergers and in other cases closer cooperation on provision. The new landscape also envisages strengthening of the university sector through strategic alliances especially in research. When fully complete, the number of institutions is expected to reduce from 39 to 23.

Box 5: HEI Reconfiguration

IOT Mergers:

Munster: Cork Institute of Technology; Institute of Technology Tralee

Dublin: Dublin Institute of Technology; Institute of Technology Blanchardstown; Institute of Technology Tallaght

South—East: Waterford Institute of Technology; Institute of Technology Carlow

Connaught—Ulster: Galway-Mayo IT, Letterkenny IT and IT Sligo

Teacher Education:

DCU—St. Patricks College, Drumcondra—Mater Dei Institute of Education—Church of Ireland College of Education (full merger)

NUIM—Froebel College (full merger)

TCD—UCD—Marino Institute of Education—NCAD (collaborative centre)

UL—MIC—LIT (collaborative centre)

UCC—CIT (collaborative arrangements)

NUIG—St. Angela’s College—GMIT teacher education programme (full merger)

¹⁹ Landscape Report 2013 http://www.heai.ie/sites/default/files/report_to_minister_-_system_configuration_2_0.pdf

Regional Clusters:

South/South East—UCC, CIT, IT Tralee, WIT and IT Carlow;

West/North West—GMIT, IT Sligo, LKIT and NUIG;

Mid-west—UL, Mary Immaculate College, LIT;

Dublin/Leinster Pillar I—UCD, TCD, NCAD, Marino Institute of Education, IADT;

Dublin/Leinster Pillar II—DIT, IT Tallaght, ITB, DCU, National College of Ireland, DKIT, NUIM, AIT and RCSI

This restructuring process is not seen as an end in itself but as a key enabler for achieving greater effectiveness and quality outcomes from the system.

There is also a drive to develop a deeper regional approach to higher education based around 5 regional clusters of collaborating institutions. These clusters have a dual mission: inward-facing collaboration between institutions to best optimise their collective impact in terms of effectiveness, efficiency, and quality; and outward facing groupings of institutions interacting with external stakeholders to meet national and regional needs e.g. enterprises, community organisations, other parts of the education system.

Clusters are initially concentrating on two areas: co-ordinated regional academic plans and improved regional student pathways in partnership with further education providers in the region. The contribution of each HEI to achieving cluster objectives is assessed as part of the HEI performance funding framework.

Box 6: Regional Collaboration in Action

All five clusters have completed a baseline exercise mapping existing academic provision under the direction of the cluster Registrars group. This has been done at module level to identify areas of wasteful duplication and areas for fruitful collaboration.

A Standardized Academic Calendar across the Mid-West consortium has been introduced to facilitate sharing on module teaching and assessment. A range of shared initiatives are also underway including a federated Limerick graduate school and a number of joint programmes.

In the South consortium, CIT and UCC have developed a range of joint programmes at level 8 and 9 (BSc (Hons) Architecture). Joint management and academic quality assurance structures has been established between the two institutions including Course Boards, Joint Management Boards (JMBs), a Joint Operations Group and a Joint Academic Standards Board.

The Dublin/Leinster II cluster has established a formal network of further and higher education providers in the region and has developed an online mapping tool which details all FE courses and pathways from these to HE.

As already stated, one of the key drivers of the current reform process is to protect the diversity in the Irish system. A major profiling exercise was undertaken following publication of the strategy to identify the different strengths and areas of distinctiveness within the

system. The profiling exercise was intended to assist institutions to compare themselves to relevant benchmark institutions, and to better align their provision with their mission and strengths, thus avoiding pitfalls of ranking systems which tend to focus disproportionately on research performance and to ignore highly valued activities such as access and regional engagement. It is also intended to assist national authorities in identifying any drifts in mission. Profiles of the system as a whole, at sector level and at institution level, have been published providing unprecedented transparency and visibility on HEI activities.

While only two years into the process, there is significant activity underway across the sector as institutions prepare for merger and develop new structures at regional level to support cooperation and collaboration.

4.3. Relationship between the State and higher education institutions

In tandem with the work on landscape changes, a new framework for performance management across the sector has been developed. This is underpinned by a new funding and accountability relationship between the state and institutions which seeks to improve the performance of the higher education system as a whole and to align the requirements for performance, autonomy and accountability. The elements of this relationship include clear articulation of the cross-government expectations of the higher education system; formal three year agreements reached between the HEA and each HEI on its mission, planned profile and performance targets; and a proportion of public higher education funding allocated to institutions on the basis of performance against agreed targets.

The first System Performance Framework was published in 2013 and clearly set out the Government's high level objectives for the system for the period 2014-2016²⁰, together with a supporting framework of over 40 system performance indicators. The Framework is attached as an Appendix.

It is the responsibility of the HEA to use this framework to conduct a process of strategic dialogue with higher education institutions, to agree with each HEI a strategic direction and a set of performance targets in the form of a three-year compact, to monitor and assess HEI performance against the agreed compact and, finally, to allocate a proportion of institutional funding based on this performance. All HEI compacts and the first report to the

²⁰ System Performance Framework 2014–2016 <http://www.education.ie/en/The-Education-System/Higher-Education/HEA-Higher-Education-System-performance-Framework-2014-2016.pdf>

Minister on the performance of the system against agreed national objectives have been published²¹.

As part of this process, a maximum of 10 per cent of state funding allocated through the HEA funding formula will be allocated on the basis of performance against targets set out in the compacts (further details in Section 5.2).

This new arrangement represents a fundamental change in the relationship between the state and the institutions and is intended to provide a strong framework for incentivising and rewarding performance in line with national priorities. It also seeks to rebalance the focus on controlling inputs to greater emphasis on rewarding outputs and outcomes. Similar to the landscape reforms, this process will evolve as learning builds up within the system—and will require strong capacity both within the HEA and in HEIs to ensure its potential is fully realised.

4.4. Academic Provision

The landscape and performance management reforms are seeking to enable higher education institutions to function as a single coherent system in which institutions would each contribute to achieving agreed national objectives according to their distinctive missions, profiles and strategies.

Within this system it is expected that a diversity will be maintained that is comprehensive at system level and well aligned with student and employer demand with regard to discipline mix, NFQ level of award²², and flexibility of provision; and with high levels of regional collaboration to ensure efficiency, accessibility, quality and coverage.

There has always been some degree of academic planning at a national level, particularly in high-cost disciplines or in vulnerable but strategically important areas, to ensure critical mass and efficient organisation and to provide a balance between supply of and demand for places. These are usually informed by thematic reviews.

²¹ 2014 Higher education System Performance Report <http://www.hea.ie/en/policy/national-strategy/higher-education-system-performance-2014-16>

²² The higher education awards on the National Framework of Qualifications which ensures comparable standards for award levels, are Level 6—undergraduate advanced certificates and higher certificates (including some apprentice awards), Level 7 ordinary degrees (and former diplomas), Level 8 the undergraduate honours degree and higher diplomas, Level 9—Masters degrees and postgraduate diplomas, Level 10 PhDs and other doctorates.

Box 7: Thematic Reviews

Thematic reviews are conducted with the assistance of an expert advisory panel comprising public policy analysts, academics, relevant practitioners and representatives of students and relevant employers, and have a mix of respected national and international members in the field concerned. Issues of student and employer demand and satisfaction, quality, research underpinning, effective scale and mode of organisation, costs, benefits, access, regional, international, employer interface might be considered in a thematic review.

In recent years thematic reviews have been carried out in the fields of Medical Education—which focused on improvements in quality and increased output through new graduate entry routes; Veterinary Medicine; Initial Teacher Education, which required consolidation in research-led university settings; the Creative and Performing Arts in the Dublin Region which required greater connectivity between further and higher education and with creative industries; and dental education which is ongoing.

A review of Engineering provision is expected to commence in 2015. At present Level 8 Engineering programmes are provided by 13 institutes and by seven universities. A review of nursing which is currently provided by 13 separate nursing schools is also likely in the near future but must be informed in the first instance by HSE review of future demand for graduates.

For the most part, however, academic planning and course provision have primarily been a matter for institutions themselves and their internal governance structures. New courses and additional student numbers are, in the main, automatically included in the share-out of existing levels of public funding.

While still respecting the principles of institutional autonomy, current reform initiatives are seeking to bring a greater coherence to provision across the system and to introduce inter-institutional planning of academic programmes. Reformed academic planning is intended to eliminate any unnecessarily duplicated, fragmented or ineffective provision, securing critical mass for quality, and reducing the number of CAO programme offerings to improve transitions to higher education and the first year student experience. There are currently over 1,400 undergraduate courses listed on the CAO.

Shared academic planning has been singled out as one of the initial areas of focus for the new regional clusters as discussed above. Efforts are also underway to reduce highly denominated, overly-specialised, programme entry points at undergraduate level as part of the reform of the transition from second level to higher education.

Another area that merits further scrutiny is the duration of academic programmes. While programme lengths at level 6 and 7 are generally 2 and 3 years respectively, level 8 programmes vary between 3 and 4 years, and level 9 vary between 1 and 2 years. Level 10 awards vary, but 4 years is becoming the norm. In general, decision making on the duration of programmes fall to individual institutions. However, these decisions have a direct impact on public funding.

At undergraduate level in particular, there has been a tendency for duration of programmes to lengthen in recent years. In many cases there are good reasons for this. These include: compliance with European qualifications reforms which are designed to ensure

comparability of higher education qualifications across Europe; the inclusion of international or workplace experience; or to enable students with lower CAO points or with FET qualifications to complete courses.

In others areas the reasons for differing programmes lengths are less clear. For example, level 8 programmes are provided in Arts, Humanities, Social Sciences, Business and Law in three years by some institutions and in four years by others. It may be useful to ascertain the views of various stakeholders—academic staff, students employers and others—on the difference between 3-year and 4-year degree courses.

4.5. Shared Services

The higher education sector in Ireland already has an extensive range of shared services and shared resources. Motivating factors include the ability to secure a better price from suppliers from bulk purchasing, harmonising and standardising systems and approaches, and reducing duplicate investments and effort. These shared approaches would seem to provide real benefit not only in terms of cost savings and efficiencies, but also in enhanced service delivery.

The strong tradition of collaborative engagement across the sector provides a solid basis for developing initiatives in other areas. Structures are now in place at a sectoral level, under the aegis of the public sector reform initiative, to identify and drive new projects. This includes a Higher Education Programme Board which is overseeing strategic initiatives for the sector. The Board is chaired by the Department of Education and Skills and comprises representatives from the HEA, universities and institutes of technology.

While many of the earlier initiatives developed from bottom-up actions into national services, these new arrangements provide an important all-sector platform with the potential to drive large-scale strategic reforms. The first area being examined is a shared payroll service for the sector.

Box 8: Shared Services in Higher Education

- The CAO, established in 1976, processes nearly 80,000 applications for over 1,300 undergraduate courses in 45 higher education institutions.
- HEAnet, established in 1983, provides high speed internet and network services for all HEIs.
- An Chéim, established in 2000, procures and supports management information systems for Institutes of Technology in areas such as finance, timetabling and HR/Payroll. An Chéim will shortly merge with HEAnet delivering further efficiencies.
- IRIS, established in 2004, provides shared electronic library facilities for e-books, journals, research publications etc.
- The Education Procurement Service (EPS), established in 2008, has expanded from providing procurement services for four higher education institutions in the Mid-west region to twelve in 2013. Further HEI's are in the process of transitioning to EPS.

4.6. Structural Change: Proposition and Questions

The current process of structural reform in higher education has its origins in the 2006 OECD Review of higher education in Ireland. That review found that a great strength of the Irish system was the diversity of mission which Ireland had maintained. It identified as a major weakness, the absence of a unified national strategy and an articulated set of cross-government national priorities within which higher education institutions could develop greater strategic focus and be given greater autonomy to manage themselves, while noting however, that institutional governance, leadership and management practices all needed to be modernised. It also noted the large number of institutions in the Irish system relative to the size of the population. The 2011 National Strategy for Higher Education to 2030 sought to address these findings and provide a framework for the development of a single coherent system of higher education institutions.

The purpose of this paper is not to re-open that approach but to consider ways in which efficiency and organisation might be further enhanced. It is also recognised that these processes are still in their infancy and will continue to evolve in the coming years.

Proposition 3: Structural Change

There is significant policy focus on structural change and evidence that progress is taking place, however there are risks that the desired outcomes and the depth of real change that is anticipated may be more aspirational than real.

The following questions will help probe this proposition:

- Is there a risk that the focus remains on the performance of individual institutions rather than the development of a world-class system as agreed in the National Higher Education Strategy?
- What evidence is there that the Irish system is collaborating and cooperating more effectively, and how deep are these changes being felt within institutions?
- Is the performance framework, strategic dialogue process and performance funding leading to diverse mission statements and affecting real change within institutions or is it too early to judge?
- What mechanisms have been created to allow for a process of reflection, learning and diffusion of good practice across the system and how can these be strengthened?
- Has the right balance been struck between institutional autonomy and central steering to support national objectives? Is there a role for more central steering of overall provision across the system?

Section E:

Resource and Funding Allocation

5.1. Introduction

This section looks at the way in which financial resources are allocated to and within higher education institutions and how this impacts on the various objectives and contributions of higher education, particularly those identified in the first consultation paper - quality, innovation, employability and access.

It does not address the scale of funding, merely how the funding available in any given year is allocated both at a national and institutional level.

5.2. The Irish funding allocation model in the context of international innovations

Public funding for higher education is determined by Government and allocated by the Department of Education and Skills to the HEA as a block grant. The HEA is the responsible authority for allocating the funds across the sector and it does this on a formula basis through an allocation model—the Recurrent Grant Allocation Model (RGAM). Some funding is “top-sliced” initially to support strategic initiatives.

The allocation formula contains both input and output drivers. The majority of funding is allocated on the basis of student numbers with weightings applied by discipline and degree type. A proportion of the funding is awarded on the basis of research performance, and beginning in 2015 a further proportion is being awarded on the basis of performance against agreed targets as set out in 3 year institutional performance compacts with the HEA as outlined in Chapter 4.3. Maintaining a reasonable degree of stability in funding levels is an important principle of the model, and it aims to avoid funding distribution shifts that exceed the capacity of the institutions to adapt. The formula funding element of the RGAM provides core funding stability while the performance funding element incentivises a strategic focus on quality outcomes.

The allocation model has been reformed on a number of occasions, and refinements must continue to be made to ensure that it remains functional, aligned with its design principles²³ and fit for purpose in the current context which is different to that in which it was introduced. Major changes in the past include the inclusion of part time students in the model and the very recent ring-fencing of a proportion of the grant which will be allocated on the basis of performance.

The Irish funding allocation model compares well against the elements of best practice and principles found in the World Bank study of innovations in higher education funding systems, and is generally regarded as being amongst the more effective and sophisticated models internationally (see Box 9).

Block grant funding is complemented by a number of strategic funding streams. The largest is research funding, which is competitively allocated by research funding agencies and earmarked for specific projects. Other funding programmes include targeted skills initiatives such as Springboard and the previous Strategic Innovation Fund which provided project funding for strategic developments in a number of areas including teaching and learning and access. The premise of these initiatives is similar to that of the performance funding element of the block grant – to facilitate the delivery of specific national objectives.

²³ Design principles include block grant funding with institutional autonomy over internal distribution, simplicity, transparency, predictability, fairness—similar activity similarly funded, stability, cost recognition at a high level, funding-follows-the-student, payment on verified late enrolments (not projected future enrolments) recognition of Access, recognition of research performance.

Box 9- Innovations in Funding Mechanisms

A World Bank study²⁴ found that at a high level the major innovations in funding mechanisms were:

- The use of transparent formula-based funding allocation mechanisms to provide stability, and encourage positive institutional behaviour.
- The use of demand-side tools which deliver a proportion of public funding to institutions through student vouchers.
- The adoption of performance-based allocation mechanisms.
- A degree of separation of funding for research from funding for instruction to allow a more competitive allocation of research funds, the creation of centres of research excellence, and more strategic balancing of funding for underpinning and prioritised research areas

Internationally the trend has been to replace negotiated budget allocations by a combination of formal-based block grants and earmarked or categorical funds.

There are a wide range of formulas in use but one driving principle of most is to seek to reflect informed student choice in funding allocations with funding following the student. Many formulas use a combination of input and output measures in their formulas. Inputs would usually include the number of enrolled students with weightings to reflect more costly disciplines, levels or modes of study. Many include outputs such as graduate numbers (although this introduces great complexity and requires specification of normal duration of study of each programme) or the number of students who have passed exams or gained credits each year, rather than the number of enrolled students.

The principle of providing most funding as block grants with institutional autonomy to determine how the funding is then applied, is now the norm in higher education funding mechanisms replacing much older systems which controlled how resources should be used. This is especially so in countries which have moved the focus of concern from funding inputs such as pay costs to specifying required outcomes in performance-based funding systems.

However, most funding systems also still retain some element of programmatic funding that is earmarked by the central funding body to be used for particular purposes only. Most often earmarked funding would be provided on a time-limited basis to get some new activity established quickly, after which it would be mainstreamed (rolled up into block grant funding) or discontinued. Examples include earmarked funding for labour market response programmes to rapidly increase output of particular skills, new blood recruitment programmes, strategic innovation programmes in teaching and learning etc. Programmatic funding is often allocated on a competitive basis.

The main issue facing the system remains the scale of the increase in funding required to keep pace with anticipated growth in students, rather than the method of allocating that funding. It nevertheless needs to be recognised that at the core of the funding model contains an in-built incentive towards growth of students, and potentially a penalty for failure to grow. This reflects the high priority given in Ireland over recent decades to grow the numbers of students going to higher education as we sought to raise national tertiary attainment levels. However, the model was never designed to allocate a funding envelope that was static or reducing while demand for places increased.

²⁴ Innovations in tertiary education financing: a comparative evaluation of allocation mechanisms. Salmi & Hauptman. World Bank 2006

Ireland's system is by now relatively unusual in that it contains no direct link between the volume of activity in terms of student numbers and the level of funding provided to the system as a whole. Most funding systems are based on the principle that activity levels must be aligned with available public funding, in order to protect quality while including specific measures to ensure wider access. This usually entails a combination of funding instruments but generally includes some element of control of publicly funded student places. Ireland is of course unusual in terms of its demographics and will experience greater levels of growth in demand for higher education than many of our comparator countries over the coming years.

That said, the current funding approach has served as an important tool during the recent economic downturn in the expansion of higher education places to meet increased demand and in driving financial efficiencies in the sector.

5.3. Internal resource allocation models

The autonomy of universities and institutes of technology over the internal allocation of their general budget is held to be of such fundamental importance to the system of higher education governance that it is underpinned by the governing legislation of both sectors—section 37 the Universities Act 1997 and section 15 of the Institutes of Technology Act 2006, dealing with budgets. In general, public funds allocated to institutions from the HEA “block grant” combined with other resources from tuition fees and student contributions are internally allocated by institutions at their own discretion. This is in line with international best practice and seeks to move away from a system of line item budgeting where the funding body sought to control decisions about the management of input resources towards a system of autonomy for internal resource allocation combined with greater transparency and greater accountability for delivery of outputs. This is the central tenet of the new performance framework and performance funding.

This is not to imply that funding bodies cannot provide earmarked grants for specific purposes by which the institutions must be bound. State grants that are earmarked, or provided as specific, categorical or programmatic funds, have always been a feature of the funding system in addition to block grants and general budgets.

The bulk of block grant funding is allocated within institutions in line with institutional policies. Universities operate internal resource allocation models, which are broadly in line with HEA's RGAM drivers and weightings. Weighting for disciplines and degree level differ slightly across the sector and the allocation for research also varies from 5 per cent to 30 per cent of the overall funding. These differences generally reflect the mission and strategic objectives of each particular university. The universities also tend to include incentives in the allocation model for external income generation e.g. postgraduate students, research income, international students.

In the Institute of Technology sector the main resource allocation drivers are fixed payroll costs and fixed non pay costs which reflects the nature and the historical funding arrangements of the sector—directly funded by the Department of Education until 2006. Institutes are moving towards an RGAM type model but stages of development differ across the sector.

In both sectors, a small proportion of overall funding is top-sliced to support strategic objectives of the institution e.g. access, research, internationalisation, external income generation etc.

‘Cross subsidisation’ within the general budget has always been a feature of the internal resource allocation models of higher education institutions, by which income earned on the basis of some activity or subject group is allocated to another activity or subject group. Typically, student equity and affordability is taken into account in the pricing of student fees and fees charged may either not reflect or not fully reflect cost differences between subject groups. An example is the charging of the same level of student contribution to all full-time undergraduate students although a laboratory-based student place costs more than one and half times a classroom-based place, and a student place in the clinical years of medicine costs four times a classroom based place. Undergraduate fee income may therefore be internally redistributed based on cost-weighted student numbers as a normal part of the Resource Allocation Models of institutions.

The introduction by higher education ministries of formula-based funding allocations in place of input-based negotiated grants, can lead to the perception that funding calculated on the basis of the cost relativities of particular numbers and categories of students or particular volumes of activity, is intended almost as earmarked funding for those students or activities. Funding formulas that reflect observed cost differences at a very high level and student number volumes, are a good means to provide fair funding allocations, but they are not meant to tie the hands of institutions or to drive homogeneity of mission.

5.4. Funding and Allocation: Proposition and Questions

The current funding challenge facing the higher education system is primarily one relating to the level of funding available. This paper has set out a number of propositions relating to the ways in which this funding is used and the way that the sector organises itself and the impact that this can have on the extent of impact of the funding available. This section puts forward a final proposition: some of the pressures being experienced in the system could be alleviated by modifying the system of financial resource allocation to and within HEIs.

Proposition 4: Funding and Resource Allocation

Some of the pressures being experienced in the system could be alleviated by modifying the system of resource allocation to and within HEIs.

The following questions will help probe this proposition:

- What is the impact of current funding approaches – protecting diversity or leading to homogenisation?
- Is the current block grant allocation appropriately structured to support the priorities discussed in the first Consultation paper, namely quality, innovation, employability and access?
- Is the right balance being struck between block grant funding and targeted initiatives.
- Could there be greater transparency on the degree of subsidisation? Has subsidisation led to undesired outcomes?
- Where is the most effective decision point on how financial resources will be allocated – centrally in HEA, centrally in HEI or at a more local level in HEIs. Should some areas be more centrally controlled eg access, targeted skills areas, new courses?

Section F:

Four Propositions and Questions

This section summarises the four propositions around which the consultation will be structured. It also provides questions to help support this discussion.

Proposition 1: Management of Higher Education Institutions

The internal organisation, management, incentives, culture and norms within Irish higher education institutions—having been reshaped by a range of factors and facing further pressures for change—need close attention if higher education is to make its best possible contribution to society in the four ways identified in phase one of this process (high-quality undergraduate education, supporting innovation, meeting employment and labour market needs and promoting wider access).

The following questions will help probe this proposition:

- What does high-quality leadership, organisation and management of academic staff and units look like?
- How have national strategies and policies—for higher education, technology and research—influenced the internal organisation, structure, management, incentives, balance, culture and norms with higher education institutions?
- Is there a relationship between the new compacts between the HEIs and the HEA and the internal organisation and management of the institutions? What visibility and influence does an institution's compact have on the activity and projects of faculties, schools departments and individual staff?
- What is the extent and quality of support for individual career development, goal-setting and performance review within Irish higher education institutions?
- Cognisant of the requirements of Government pay policy, is there a case for higher education institutions having more freedom in relation to recruitment, pay determination, redundancy, and contract flexibility?

Proposition 2: Technology

New technologies offer opportunities to improve quality and also increase accessibility and meet increased demand from diverse student cohorts but the pace and scale of diffusion seems limited possibly reflecting resource constraints.

The following questions will help probe this proposition:

- What are the ways in which new technologies can support valuable learning, and research and outreach initiatives?
- Is the scale and pace with which technology is being embraced across the sector sufficient; or is it confined to teaching and learning centers and digital enthusiasts?
- Is the adoption of these practices being constrained by lack of resources?
- What can be learned from national initiatives such as those undertaken by the National Forum and how can these be complemented at institutional level?
- If higher education institutions do not embrace the potential offered by technology could outside interests shape the future landscape?

Proposition 3: Structural Change

There is significant policy focus on structural change and evidence that progress is taking place, however there are risks that the desired outcomes and the depth of real change that is anticipated may be more aspirational than real.

The following questions will help probe this proposition:

- Is there a risk that the focus remains on the performance of individual institutions rather than the development of a world-class system as agreed in the National Higher Education Strategy?
- What evidence is there that the Irish system is collaborating and cooperating more effectively, and how deep are these changes being felt within institutions?
- Is the performance framework, strategic dialogue process and performance funding leading to diverse mission statements and affecting real change within institutions or is it too early to judge?
- What mechanisms have been created to allow for a process of reflection, learning and diffusion of good practice across the system and how can these be strengthened?
- Has the right balance been struck between institutional autonomy and central steering to support national objectives? Is there a role for more central steering of overall provision across the system?

Proposition 4: Funding and Resource Allocation

Some of the pressures being experienced in the system could be alleviated by modifying the system of resource allocation to and within HEIs.

The following questions will help probe this proposition:

- What is the impact of current funding approaches – protecting diversity or leading to homogenisation?
- Is the current block grant appropriately structured to support the priorities discussed in the first Consultation paper, namely quality, innovation, employability and access?
- Is the right balance being struck between block grant funding and targeted initiatives.
- Could there be greater transparency on the degree of subsidisation? Has subsidisation led to undesired outcomes?
- Where is the most effective decision point on where/how financial resources will be allocated – centrally in HEA, centrally in HEI or at a more local level in HEIs. Should some areas be more centrally controlled eg access, targeted skills areas, new courses?