Efficiency, effectiveness and value for money

Summary
UK higher education is a national success story. We enjoy a global reputation for excellence in teaching and research, and our universities continue to be in the vanguard for advancing individuals and wider society, helping to solve the many problems facing people across the globe today. In addition we are seen globally as an efficient sector; one which uses every pound wisely.

However, the challenge of ensuring that we maintain this standing should not be underestimated. Many nations are investing in higher education, seeing that the higher level skills of graduates and the social and economic benefits of research are central to an advanced 21st century society. Internationally, higher education is becoming ever more competitive and UK higher education must work tirelessly to maintain our international standing and to become both financially and environmentally sustainable.

In this context, delivering efficiency and value for money is an absolute operational priority. All stakeholders rightly expect efficient use of resources and in the current financially austere times investment to maintain excellence in both education and research will often come through such efficiencies. Thus, to meet the demands of competitiveness in the 21st century, universities must work in ever smarter and more innovative ways.

This report builds on the work of the 2011 UUK Efficiency Task Group and, four years on, develops a new agenda for efficiency, effectiveness and value for money in higher education. It highlights the fantastic work that the dedicated professionals in all parts of the higher education workforce have delivered and describes the great efforts that have been made in recent years to scale the twin peaks of efficiency and effectiveness. However, we need to do more. We must continue to demonstrate our commitment to making every pound count. We need to make a clear case: every pound invested in higher education is a sound investment, both now and in the future.

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To do so, we need to set out a clear programme of work, and be able to evidence our progress. This report – which has been made possible thanks to the efforts of a huge number of colleagues from all parts of the sector, working in all parts of our universities – sets this agenda. It aims to provide a focal point for all our efforts in the coming years, as we strive to ensure that UK higher education continues to be recognised the world over as the home for both excellence and efficiency.

Professor Sir Ian Diamond
Principal and Vice-Chancellor, University of Aberdeen
Chair, UUK Efficiency Task Group
The impact of UK higher education

Universities matter. They play a critical role in the UK, providing the education, training and research that underpins economic growth, provides societal benefits, enriches lives and helps to address the many serious challenges facing society today.

In purely economic terms, UK higher education is a major player. With annual expenditure of £27.9 billion, the sector generates £73 billion a year for the national economy, is responsible for over £10 billion in export earnings and supports more than 700,000 jobs. Our universities create more gross domestic product (GDP) per unit of resource than health, public administration and construction; and for every 100 full-time jobs in our universities, another 117 are created in other parts of the economy.

This huge impact is grounded in four key roles universities have:

- Providing world-class teaching and learning opportunities
- Excellence and diversity in research and innovation
- Supporting the needs of business and industry
- Underpinning a global reputation for high quality education

1. UK higher education: ‘among the most important, the most exciting and the most proud of our national assets’

A decade of success: meeting the efficiency challenge

In 2013, a report to the Department for Business, Innovation and Skills (BIS) showed that the UK higher education sector ‘is moving towards a ten-year track record of delivering efficiencies’.

English universities consistently met efficiency targets that had been set in successive Comprehensive Spending Reviews. In total, £1.38 billion of efficiencies were reported against a cumulative target of £1.23 billion; and HEFCE has estimated that efficiencies totalling more than £1 billion have been delivered in the last three years. Institutions in Scotland, Wales and Northern Ireland have also had to manage challenging efficiency targets and funding settlements in recent years.

What drives efficiency in universities?

Drivers for efficiency and value for money are about more than just austerity. Universities across the UK are responding to a more competitive environment, with the needs of a diverse student community paramount. There is an imperative to invest in facilities in a more restrained public funding environment, and to ensure a world class workforce is available to serve the needs of learners and to deliver excellent research.

Institutional autonomy is critical to ensuring that universities are able to respond effectively to new challenges, and to meet the evolving needs of students and other stakeholders.
Universities will:

- Continue monitoring pay growth in the higher education sector, providing public accountability through an annual report setting higher education professionals’ pay in context with changes in the public and private sectors.
- Deliver reform of the sector-owned USS pension scheme, and work with stakeholders and government to lobby for greater engagement and representation in public sector schemes.
- Support universities in embracing innovative approaches to teaching, learning and enhancing the student experience, by identifying and reporting on trends and sharing good practice.

Key messages

Universities are dependent on the quality of the workforce they recruit. This applies to all aspects of the institution; world-class academics are needed to deliver excellence in teaching, research and knowledge exchange activities, while similarly world-class operational and support staff must be capable of meeting the myriad challenges that face any large, complex commercial organisation on a daily basis.

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Productivity and effectiveness have enabled the higher education sector to deliver excellent outcomes throughout a period of change and uncertainty. This has required high calibre staff and (consequently) competitive reward packages. Issues around reward, performance and wellbeing in the higher education workforce must be of paramount importance to everyone involved in higher education. Academic professionals are among the most internationally mobile of all workforce communities, with leading teaching and research staff frequently moving between institutions and private sector companies, across national borders, when more attractive opportunities arise. It is important to recognise that the pay and reward packages found within UK universities are subject to such market forces, and as such must be competitive to ensure continued excellence.

UK universities have maintained control over pay costs. Since 2009, the sector has recognised the imperatives of the fiscal environment and maintained below-inflation increases to the pay spine; overall staff costs have continued on a downward trend as a proportion of income (and now stand at 55.2%); and pay growth of higher education professionals [at 5.5%] over the period has been lower than in either the public (6.8%) or private (6.6%) sectors.

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Automatic incremental pay is not prevalent across the higher education sector. Analysis shows that median workforce eligibility for service-related pay progression is 36%. The perception that there is no performance management or contribution-related evaluation of pay and reward is also misplaced. For example, 50 institutions are part of the Performance for All project and a majority of institutions include a contribution-related element to reward packages.

The new student funding model in England places greater emphasis on student choice as a mechanism for encouraging competition between universities. This competition is one of the factors driving universities to become more responsive to the evolving needs of students. Universities have continued to recognise that excellence is central to all that they do while at the same time ensuring that efficiency is an operational priority. This ensures that students and taxpayers are provided with a system that offers excellent value for money, while maintaining a level of quality that is recognised internationally.
3. Delivering value from the higher education estate

Universities will:
- Develop a balanced scorecard of metrics that will be used to demonstrate estates performance in efficiency and effectiveness, and report on these annually to improve accountability
- Further enhance improvements in space use and utilisation and delivering value from the higher education estate, and provide robust estimates of the efficiency savings being delivered from these changes
- Develop a package of tools and guidance material that will support senior leaders and estate professionals to make more informed strategic choices about the university infrastructure

Trends in space use in universities demonstrate significant efficiencies. Analysis of data from the last decade shows that:
- Total net non-residential space per FTE student is down by over 8%.
- Teaching space per student FTE is down by nearly 17%.
- Academic office per academic staff FTE is down by 0.5%.
- Support office space per support staff FTE is down by nearly 11%.

Analysis commissioned by AUDE and UUK estimates that over the last 10 years, efficiency gains from better use of space total £886 million. Total income related to the estate size increased substantially over the last decade. In real terms, income per student and member of staff went up by over 21% over the last decade, and income per square metre increased by over 34% over the same period. This indicates a more efficient and effective use of space over the period.

The efforts of estate management teams to improve energy efficiency have reduced the sector’s carbon footprint. Without improvements to energy efficiency and space use, nearly 1.2 billion kg of additional carbon dioxide equivalent emissions would have been released.

Key messages
The last decade witnessed a substantial public investment in the higher education estate, which in turn has delivered significant returns. Overall, the quality, condition and suitability of university infrastructure have all improved. The percentage of space rated in the top two categories of building condition has increased by over 19 percentage points (to 78%), and the percentage of space rated as ‘excellent’ and ‘good’ with regards to functional suitability is now 85% – an increase of nearly 22 percentage points.

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4. A world class and sustainable research base

Universities will:
- Continue to make a robust case for greater investment in the research base, and for the need to maintain support for the dual support system of research funding
- Propose a proportionate mechanism for delivering efficiencies from research funding, with a focus on stimulating behavioural change and supporting long-term sustainability of the research base
- Develop a robust set of metrics to account for a wider set of efficiencies delivered from the research base that will inform a more holistic, sector-wide view of cost and efficiency savings

Key messages

On an array of metrics, UK research is a world leader. Importantly, this continuing success has been delivered with significantly lower investment – both public and private – in research and development than many of our competitor countries. The Research Excellence Framework 2014 exercise found over three quarters (76%) of research activity at UK institutions was rated world-leading (4*) or internationally excellent (3*), compared to 54% in the 2008 Research Assessment Exercise.

The UK has also been ranked highly across a range of significant measures:
- 1st for the reach, impact and well-roundedness of its research, having recently overtaken the United States in terms of field-weighted citation impact
- 1st for research productivity – 3.87 times the world average, and growing 4% per year between 2008 and 2012 – and 1st for the productivity of its higher education sector
- 1st in the OECD for the proportion of R&D funded from abroad
- 2nd (only to the United States) for the quality of its scientific research institutions
- 2nd out of 50 higher education systems for outputs (but only 21st for inputs)

Science and research is vital to the UK economy and ongoing support is needed to support growth. Maintaining the science ring-fence in cash terms alone will – by the end of 2015 – mean that science and research has experienced a real terms cut of around £600 million. This has only been mitigated in part by efficiencies delivered through research funding mechanisms.

Universities have delivered £194 million of savings against a cumulative target of £187 million on research council awards.

The research community is on track to meet the overarching target of £428 million in total savings, with a cumulative £283 million so far delivered against a target of £251 million (to 2013–14). Universities have delivered £194 million of savings against a cumulative target of £187 million on research council awards; a further £133 million of efficiency savings are scheduled to be delivered in 2014–15.

The efficiency measures stimulated by the Wakeham report have succeeded in lowering average indirect cost rates charged to the research councils and for other research. In real terms, Transparent Approach to Costing (TRAC) data suggests that these cost rates have fallen from a high of £42,603 (in 2008–09) to £38,764 (2012–13) per FTE – a real-terms reduction of over 9%.

However, institutions are recovering a lower proportion of the total cost of research. This is likely to impact negatively on long-term sustainability.

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5. Harnessing the benefits of asset sharing

Universities will:
- Support and deliver significant progress on both the scale and scope of asset sharing in the higher education sector
- Develop a robust set of metrics through which the scale of asset sharing can be better understood and monitored, and from which an estimate of efficiencies can be calculated
- Work with research funders and other sector stakeholders to deliver policy incentives that will stimulate greater sharing of research assets in all parts of the research community

Key messages
In recent years there has been, for both intellectual and fiscal reasons, a groundswell of cooperation and collaboration across the sector. Big research problems have required teams, often multidisciplinary, and few institutions alone have the skill sets to staff entire teams. As equipment and laboratories have become more expensive there have also been increased financial challenges stimulated, in part, by the response to Wakeham. There was also a focus on stimulating collaboration and asset sharing in the 2014 consultation on future science capital spending; it is clear that making the most of public funding will lie at the heart of research capital investment plans in the future.

Well managed, strategic asset sharing arrangements can produce a range of significant benefits beyond efficiencies. The sharing of assets can lead to better science, by providing access to higher specification equipment than would otherwise be affordable for individual teams. Furthermore, sharing can bring together different research disciplines, which can enable new and multi-disciplinary scientific and technical advances, and improves the training and skills-sets of students, researchers and technicians. These benefits are in addition to savings from shared investment and running costs.

It is important that sharing is not seen as a panacea, and significant barriers remain. Establishing effective sharing mechanisms can involve substantial transaction costs before operational efficiencies can be realised, which means that there is currently only a strong business case for the sharing of very high-cost equipment items. Increased operational costs include spending on consumables, maintenance, travel, training and technical support, plus an additional VAT charge on sharing if the appropriate arrangements are not put in place.

PRODUCTIVE AND OPERATIONAL EFFICIENCIES RESULTING FROM EQUIPMENT SHARING

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<th>Productive efficiencies</th>
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<td><strong>New science and technical advances</strong></td>
<td><strong>Collaborations with industry</strong></td>
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<td>Access to equipment of a higher specification than would have otherwise been affordable</td>
<td>Industrial usage of equipment and any new industrial collaborations</td>
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<td><strong>Cost of equipment</strong></td>
<td><strong>Equipment utilisation</strong></td>
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<td>Reduction in procurement costs – purchase, service or maintenance costs</td>
<td>Increasing load factors on existing equipment</td>
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Universities will:

- Facilitate and stimulate greater use of open data by providing support and practical guidance on how to make use of opportunities
- Undertake an audit of collective data assets held by the sector and make recommendations for how these might benefit from being made open
- Work collectively with the research community to stimulate cultural change around open research data

Key messages

In 2014, the Royal Statistical Society published its data manifesto, which set out the importance of data in the modern economy; it argues that ‘What steam was to the 19th century, and oil has been to the 20th, data is to the 21st’. The Shakespeare review (2013) highlighted where innovation in the use and publication of data was already having a major impact on services, and estimated the potential social and economic value of better use of public sector data to exceed £5 billion.

Open data is already having a significant impact in areas of the public sector and in public policy, identifying where significant cost savings may exist and raising strategic issues for policy makers. There is a widespread commitment in the sector to shared data collection and dissemination of data. However, there is a need to consider whether more sector-produced data held by third parties and sector agencies should be made open.

Throughout higher education, data already plays a vital role in institutional management and for underpinning public accountability. Universities are supported in this by the Higher Education Statistics Agency, which operates as a shared service for the sector to collect and disseminate data about higher education, fulfilling the requirements of a range of stakeholders.

The scope and scale of activities to enhance the utility of open data in higher education needs to be extended if significant benefits are to be realised.

Significant opportunities may exist in a number of key areas:

- Student choice and recruitment: looking at how existing data, including datasets such as the Key Information Set and X-CRI153, as well as third party datasets, can be better used to help institutions attract students from the UK and overseas
- Business processes and intelligence: looking at how administrative data can be better used to lower costs and modernise processes to improve the efficiency and effectiveness of institutions, such as in procurement
- Research management: looking at how open data methods can facilitate the research management process, including collection and sharing of research outputs for future assessment exercises
- Learning and the student experience: looking at how open data may be used to support analytics or other services that help improve the learning experience and support better outcomes for students

The academic community, research funders, sector stakeholders and government are making progress in the field of open research data. There are significant barriers to overcome in making research data open; however, the sector is taking the lead on addressing these. Sector stakeholders are working to develop a concordat that will set out principles and commitments to support greater openness in research data.

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7. Shared services, infrastructure and the role of procurement

Key messages

Adoption of the VAT cost sharing exemption by government in 2012 has helped to stimulate a number of new cost-sharing groups. UK higher education is now home to the largest cost sharing group (CSG) in the UK, Jisc. However, proposed CSFs have met with varying degrees of support from government agencies.

There are important examples of shared infrastructure that ensures that universities have access to the very best technology, and helps reduce costs. Janet, the UK’s national research and education network, provides a vital part of the infrastructure that supports collaboration between UK institutions, and with overseas institutions. This is one of the most powerful academic networks in the world, and one of the fastest networks in the UK. It is provided as a shared service to UK institutions.

There have been very positive developments in procurement since 2011. Procurement Maturity Assessments have been rolled out across England, with over 90 institutions taking part in the programme. This has demonstrated (a) examples of best practice across the sector, in every category of assessment, and (b) an upward trend in performance among all institutions to have been through at least one complete PMA cycle. This mirrors trends in Scotland, where all universities participate in a similar exercise.

The annual Efficiency Measurement Model survey (reinstated by HEFCE) has shown that procurement efficiencies totalled £153 million in 2013–14, up from £132 million in 2011–12. Analysis has also estimated the level of collaborative procurement in England to be 25.7% of relevant non-pay spend (in 2013–14); the value of collaborative spend identified through this exercise has increased from a little over £1 billion in 2010–11 to more than £1.6 billion in 2013–14.

A number of mechanisms support universities to monitor their performance with regard to costs, efficiency and sustainability. Value-for-money reports are produced voluntarily by universities for their own internal management processes, and many are submitted to funding bodies. This provides valuable evidence of the scale and scope of work to deliver savings. The Transparent Approach to Costing (TRAC) mechanism provides a shared, sector-owned framework for understanding costs and for assessing sustainability at the sector level, while university governing bodies also play an important role in providing oversight of institutional sustainability.

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The Efficiency Exchange has been established as a sector-owned resource for sharing good practice on efficiency and value for money in higher education. A growing network of partners contribute to and syndicate the exchange’s regular output of news, updates, thought leadership blogs, tools and examples of case studies for the benefit of sector professionals seeking practical guidance and inspiration.
8. Evidence, oversight and sharing good practice

Universities will:

- Develop robust, proportionate approaches to accounting for efficiencies delivered within institutions, which can be reported annually to the relevant funding councils
- Establish a set of sector-level metrics across the areas outlined in this report to demonstrate progress on efficiency and value for money in the higher education sector
- Use these measures to inform a single report evidencing efficiency in higher education, which will be produced for government on an annual basis with a robust estimate of total efficiency and cost savings delivered

Key messages

It is imperative that universities continue to evidence their success in delivering efficiency and cost savings. Universities require investment, and in the context of austerity and continuing pressures on public spending must therefore be willing and able to demonstrate what they have done to deliver both excellence and value for money.

In the new funding environment, there is also an obligation on universities to demonstrate to students that they are working efficiently. Principles of transparency, openness and accountability dictate that there needs to be a greater emphasis on value for money in the future.

 Universities require investment, and in the context of austerity and continuing pressures on public spending must therefore be willing and able to demonstrate what they have done to deliver both excellence and value for money.

To help ensure that the sector can evidence progress there is a need for:

- a simple, proportionate and robust approach to collecting data on efficiency and value for money activities in universities
- a way of coordinating and collating this data to provide a robust account of efficiency and cost savings at the sector level
- new mechanisms to improve openness and transparency at the level of the institution
- clear, transparent and understandable presentation of key data on efficiency and value for money to inform debate in the sector

In the devolved nations, funding councils have similar accountability mechanisms in place that help provide transparency and accountability to the public. These include Outcome Agreements and Efficient Government returns in Scotland. Consideration might be given as to how these mechanisms can be used by the sector to provide greater insight into the efficiency and value for money activities of universities.

At the level of the institution, there is also an important role for university governing bodies to understand how the universities they represent perform in terms of efficiency, effectiveness and value for money. Monitoring institutional sustainability in all its forms (including both academic and financial) is a key role for governing bodies (as specifically noted in the most recent Higher Education Code of Governance, published by the Committee of University Chairs in 2014).

In terms of future oversight and reporting of progress against the commitments set out in this report, a strategic oversight group will be established. This will include representation from funders and government. This oversight group will meet twice a year, and will be responsible for publishing a summary of progress on an annual basis. This group will be chaired by UUK.
To download the full report visit
www.universitiesuk.ac.uk/highereducation/Pages/EfficiencyEffectivenessValueForMoney.aspx

For more information on the development process, evidence base, working groups and engagement and consultation activities undertaken in preparing the report, please go to:
www.efficiencyexchange.ac.uk/resources/efficiency-report-2015
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