

MillionPlus

The Association for
Modern Universities



RESPONSE

Universities, enterprise, exports
and innovation

MillionPlus Submission to the
2016 Autumn Statement

Summary

The education sector generated £98.3bn gross value added to the UK economy, just over 6% of the total. Higher education makes up around 40% of this across each region of the UK, based on 2014/15 figures.

A 2013 report produced for the Department of Business, Innovation and Skills showed that education exports were £17.5bn per year.¹ A report from the Institute of Fiscal Studies in August 2016 calculated HE exports as being worth £10.5bn to the UK economy each year.² Universities UK calculated that in 2011-12 the HE sector generated over £73bn of output – nearly 3% of total UK GDP – and accounted for nearly 3% of all UK employment.

MillionPlus believes that the autumn statement should be used to build on these strengths but also take account of the risks to the sector in the transition to Brexit. Accordingly, the Autumn Statement provides an opportunity to:

- secure the UK's share in the EU student market during the negotiations to achieve Brexit
- support the role of universities in the industrial strategy and in delivering regional growth
- underpin UKRI's agenda by promoting research and enterprise through new streams of funding
- invest in the training and professional development of teachers and the health professions to address teacher shortage and retention and deliver the government's ambitions for 7-day working in the NHS
- arrest the decline in the resource available to invest in teaching infrastructure
- boost the capacity of all universities to trade in the global higher education market

Modern universities have long-standing track records in supporting innovation and enterprise in particular with small and medium sized enterprises (SMEs) as well as multi-national companies, activities which help drive regional economic growth. These modern universities trade globally but are also vital in developing a highly-skilled and professional workforce in the private sector but also in key areas such as healthcare and education.

Specifically, the Autumn Statement should be used to provide investment so that the government can achieve the following:

- provide EU students entering universities in England in the admissions years 2018-19 and 2019-20 with access to student loan funding for the duration of their course on the same terms and conditions as apply to home students
- increased investment in research and development to ensure the overall UK funding resource reaches 2.5% as a percentage of GDP by the end of the parliament
- a new fund for applied and translational research to support innovation in businesses, SMEs and public services and boost economic growth across the country
- targeted regional funding to support collaboration between universities and businesses or public services
- funding for projects that are currently supported by EU structural funds
- additional capital investment in teaching infrastructure and facilities to achieve a target of £150m per year over the life of the current parliament

¹ [The Wider Benefits of International Higher Education in the UK, BIS, 2013](#)

² [The EU Single Market: The Value of Membership versus Access to the UK, IFS, 2016](#)

- tax breaks for employers to support investment in upskilling and professional development to complement the support provided for apprenticeships including degree apprenticeships
- new ring-fenced funding for placements and continuous professional development to support the training and professional development of nursing, midwifery and allied health professional students and staff already in the workforce
- multi-year allocations of places for initial teacher training (ITT) to all universities which deliver teacher education to ensure that provision is sustainable and can be planned to effectively meet local and national needs for new teachers and secure future teacher supply
- new funding for professional development for teachers at all level of their careers to support retention and collaboration with university education departments
- a new funding initiative to boost the engagement of all UK universities in the global HE market

Securing the UK's share in the EU student market

1. In 2014-15, there were around 125,000 EU students studying in the UK, with 54% of them from just 6 countries. Germany, France, Ireland and Italy were the top four countries – contributing nearly 40% of the students studying in the UK in 2014/15. The impact in terms of economic value of these students is significant – whether to the individual university where they study, the part of the UK or region of England in which they live, or to the UK overall. This is seen in terms of the amount generated for the local economy and in terms of jobs created in those areas. The income generated in each of those regions contributes to a significant level of employment whether through direct creation of jobs, or through indirect activity that supports other jobs (Figure 1).

Figure 1	Amount generated for regional economy (£m)	Number of jobs created and supported
Scotland	£414.1m	3,743
Northern Ireland	£78.1m	841
Wales	£132.9m	1,264
North East of England	£82m	770
North West of England	£221.6m	2,112
Yorkshire and Humberside	£167.7m	1,638
West Midlands	£219m	2,079
East Midlands	£143m	1,341
East of England	£247.5m	2,295
London	£788.9m	7,580
South East of England	£420.3m	4,021
South West of England	£168.2m	1,481

Source: Viewforth Consulting modelling system analysis for Universities UK³

2. In total, EU students generated around £3.7bn for the economy in 2011-12. Of this, £1.4bn is generated from on-campus expenditure of around £220m in direct payments (from tuition fees) and cost and a further £2.3bn was generated for the UK economy by off-campus spending in local economies.
3. Universities are important economic generators in their own right within different English regions and in Scotland, Wales and Northern Ireland. The contribution of EU students to this cannot be underplayed – their presence is responsible for at least 2% of jobs created by universities in every region. In addition, around 5% of economic output generated by universities is attributable to EU students (Figure 2). This impact benefits the wider communities in each of those areas, contributing significantly to local economic growth. In negotiating Brexit, the UK government will need to be mindful of the importance of EU educational exports to these local economies.

³ <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2016/economic-impact-of-eu-research-funding-in-uk-universities.pdf>

4. The government should use the autumn statement to ensure that there is no decline in the number of EU students applying to study at UK universities. One way to mitigate the risk that Brexit could lead to a downturn in applications, which in turn would result in less investment in the UK economy, is to guarantee that EU students applying to study in UK universities between now and the point of Brexit will be able to access student loan funding for the duration of their course.
- The government should confirm that EU students entering universities in England in the admissions years of 2018-19 and 2019-20 will be able to access student loan funding for the duration of their course on the same terms and conditions as apply to home students.

Investing in research, innovation and enterprise

INCREASING THE OVERALL INVESTMENT IN RESEARCH FUNDING

5. The UK's investment in research and development has hovered around 1.6% of GDP since 2000, with the average across OECD countries being closer to 2.5%.⁴ The OECD figures suggest that where governments invest in research and development, private sector investment follows. In most cases about one-third of the investment in R&D comes from public funding and two-thirds from private funding.⁵
 6. The rationale for supporting innovation in business and industry through research programmes has been recognised by governments with developed higher education university systems, and used to justify public investment in research and development. Countries that do well in this area of investment do so because business and industry are able to build on a strong pattern of government investment in the research base and infrastructure.
 7. In order for the UK to compete with these countries, overall UK investment needs to reach 2.5% of GDP. This means the government needs to increase its investment from the 0.5% that was invested in 2014 (the latest year for which the OECD has UK data).
- The government should include a commitment to increase government funding for research and development to ensure the overall UK investment reaches 2.5% as a percentage of GDP by the end of the parliament.

CREATING A NEW FUND FOR TRANSLATIONAL AND APPLIED RESEARCH

8. Modern universities make significant contributions to important areas of the UK economy with their research activities. The most recent assessment of the research of UK universities demonstrated that 53% of research at modern universities was judged as world-leading, or internationally excellent. In addition, 61% of research at modern universities was judged to have outstanding or very considerable impact. The impact of research is a key indicator for the government when considering the value of its investment.⁶
9. Nonetheless, the policies of successive governments have created a disproportionate and concentrated research funding system that threatens the long-term sustainability of substantial amounts of research undertaken in universities. Despite the demonstrable success highlighted by the assessments of the government-endorsed research excellence framework, new analysis conducted by MillionPlus shows that in 2015/16 just three universities (2% of the HE sector in England) received 25% of the funding allocated on the basis of these assessments. By comparison, 77 universities (64% of the HE sector in England), shared only 10% of the available funding allocated on the basis of the research excellence framework assessments.⁷

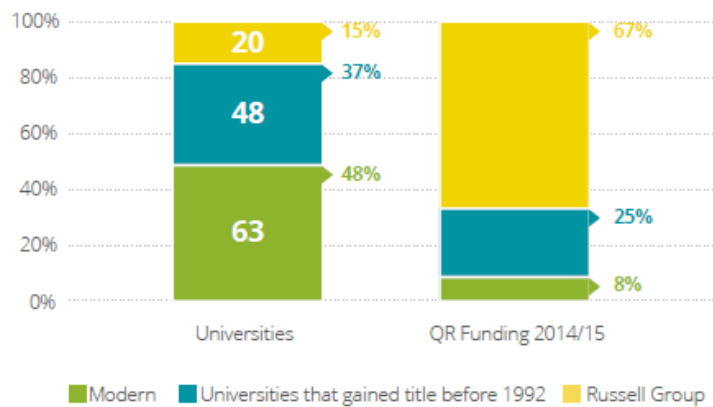
⁴ <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>

⁵ See *The Innovation Challenge*, MillionPlus, September 2014: <http://www.millionplus.ac.uk/policy/reports/research-report-the-innovation-challenge-a-new-approach-to-research-funding>

⁶ See *Is science and research funding in higher education meeting the challenges of the 21st century*, MillionPlus, September 2016: <http://www.millionplus.ac.uk/policy/policy-briefings/policy-briefing-is-science-and-research-funding-in-higher-education-meeting-the-challenges-of-the-2>

⁷ See *Is science and research funding in higher education meeting the challenges of the 21st century*, MillionPlus, September 2016: <http://www.millionplus.ac.uk/policy/policy-briefings/policy-briefing-is-science-and-research-funding-in-higher-education-meeting-the-challenges-of-the-2>

Proportion of universities by type in England and proportion of QR funding allocated in 2014/15



Source: *Is science and research funding in higher education meeting the challenges of the 21st century*, MillionPlus, 2016

10. The government is failing to build on the achievements of universities that support growth in local economies across the UK and deliver research excellence. The adverse consequences of the concentration of funding has been recognised by the government. Shortly after his re-appointment as Universities and Science Minister, Jo Johnson MP said in a speech (MillionPlus emphasis):

“At present, 46% of public investment in research goes to the golden triangle. This reflects the strength of internationally-renowned universities in London, Oxford and Cambridge. We must and we will continue to fund research on the basis of excellence and ensure we are competing with the very best in the world.

But we do have to ensure we recognise that other parts of the country have proven research excellence in their universities, and ensure we fund excellence wherever it is found in order to realise the productivity gains that we have seen in the Golden Triangle. To achieve this, we need a new approach – one that promotes and protects our reputation for world-class science, and also drives growth and raises productivity for the whole of the UK.”⁸

11. The government can mitigate this concentration by introducing new investment in applied and translational research, targeted at universities currently in receipt of lower levels of public research. Such funding would support innovation in businesses, SMEs and public services and help to boost economic growth across the country. This would have the additional benefit of helping to counter the effect of concentrating resources in a small number of geographical areas. SMEs employ 60% of the UK population and have a combined turnover of £1.8tn. As such, they are vital to the economic success of the country. To be effective, the industrial strategy needs to ensure that they are able to work effectively with universities to drive innovation and increase economic growth in all localities.
- The government should seek to redress the balance and the concentration of research funding in a small number of geographic areas by creating a new fund for applied and translational research to support innovation in businesses, SMEs and public services and help boost economic growth across the country.

CREATING A NEW INNOVATION AND ENTERPRISE FUND TO SUPPORT REGIONAL ECONOMIES

12. There are significant collaborations between universities and businesses that successfully apply academic know-how to key industrial challenges, resulting in increased efficiencies which boost economic growth in local areas. Examples of these collaborations include the work of the University of Sunderland with Nissan and the University of Cumbria with the nuclear industry. These collaborations often fall outside the traditional definitions of original (blue-sky) research or applied research, and as such the right investment route can be hard to identify, despite the benefits they can bring to local areas. In some cases, EU funding for structural investment is used, but the consequences of Brexit mean that this route will become unavailable. The Autumn Statement provides the government with an opportunity to rectify this and invest in activity that can boost regional economic growth.

⁸ <https://www.gov.uk/government/speeches/one-nation-science>, Jo Johnson MP, 16 July 2015

13. Increasing support for SMEs, providing incentives for entrepreneurial collaboration between universities and businesses and providing targeted regional funding as part of a focused regional element of the industrial strategy is also particularly important for a sector such as the creative industries. This sector is comprised of SMEs and micro businesses, which often lack the capacity (both in terms of staff or funding) to enter into research collaborations with other organisations.
- The government should create an innovation and enterprise fund, possibly through Innovate UK, that can be used by universities to invest in projects that are currently supported by EU structural funds or which require specific funding and support.

Capital investment in teaching infrastructure

14. The government's 2015 Autumn Statement announced significant long-term investment in science capital spending, including funding for research infrastructure in universities.⁹ The commitment totalled nearly £7bn over the period from 2015-2021, with a real-terms increase in the budgets for 2016/17 to 2019/20 announced in March 2016.¹⁰ This included nearly £1bn allocated to the Higher Education Funding Council for England (HEFCE) – approximately £225m per year – for university research capital, clearly a welcome investment in a vital part of the higher education sector.
 15. By contrast capital investment in the wider higher education sector to support universities to fund teaching infrastructure has received far less focus from government and is a lot less secure. Between 2012/13 and 2016/17, the total amount available through HEFCE's teaching capital investment fund was less than £500m.¹¹
 16. Investment in teaching capital infrastructure is essential to ensure that universities can provide innovative, flexible, digital support to learners. Investment in teaching capital infrastructure can also be used by universities to support part-time learners in the workplace, and students that wish to study at an accelerated pace.
 17. To take accelerated learning as an example, students studying for a three-year degree over two-years trigger similar institutional costs to those on longer programmes, including teaching hours, room hours and facilities, marking, and academic and pastoral support. The fee structure limits the amount of funding universities can get each year. Universities, like all organisations, seek efficiencies in their methods of delivery but the current funding system is a strong disincentive to develop accelerated programmes. Organisations outside the higher education sector have noted the current system discourages two-year provision. In a letter¹² to the Secretary of State for Business, Innovation and Skills in June 2015 the Chief Executive of the Competition and Markets Authority recommended, "that BIS explore whether accelerated degrees could be encouraged within the overall funding cap to provide more choice for providers and users, and more opportunity for competition to drive efficiency."
 18. The Higher Education and Research Bill provides Ministers with an opportunity to amend the fee and funding rules in England to provide more flexibility and to allow universities to charge according to the amount of credit undertaken by a student rather than by the length of their course. In addition, the Autumn Statement provides an opportunity to increase capital investment to provide additional support to universities. This will ensure that their teaching infrastructure and facilities are modern and flexible, and meet the needs of 21st century higher education, including digital and other learners who wish to study flexibly both in time and in place.
- The government should increase the amount of funding available to invest in teaching infrastructure and facilities to £150m per year over the lifetime of the current parliament.

⁹https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/479749/52229_Blue_Book_PU1865_Web_Accessible.pdf

¹⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

¹¹ <http://www.hefce.ac.uk/funding/capital/TCIF/>

¹² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437530/Letter_from_Alex_Chisholm_to_Sajid_Javid.pdf

Investing in high-level skills and professional development

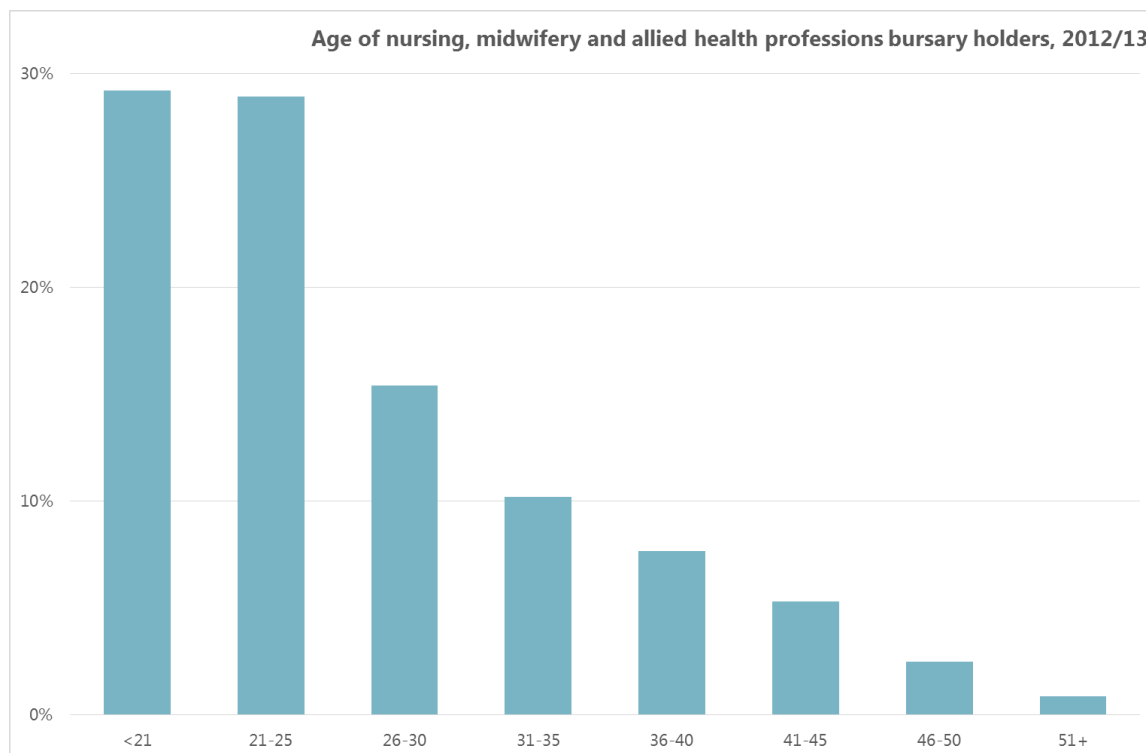
19. Investing in higher education, whether for school leavers and older learners, for people about to enter the employment market or for those already in it, makes economic sense and generates value in the regions. A successful, innovative and competitive economy needs highly-skilled individuals, with the resilience, flexibility and problem-solving attributes to cope with the demands of the 21st century workplace.
 20. A competitive economy needs to harness the ability of universities to support businesses in developing their workforce. Modern universities have long-standing traditions of offering more flexible study routes, accrediting workplace learning and developing multi-disciplinary, vocational, professional courses. However, the 2012 tuition fee and funding reforms exacerbated a decline in the part-time enrolment that enabled people already in work to learn while earning, and improve their existing skills.
 21. Further opening up and promoting higher education to students of all ages, particularly to those already in the workplace, will benefit individuals and employers. Increasing skills and knowledge of employees will add long and short-term value in respect of productivity gains and output and resilience in the employment market. Because universities are dispersed around the country, this will also help deliver more dynamic regional economies.
 22. Successive governments have used tax credits to incentivise businesses, particularly SMEs, to invest in research. Tax credits to encourage employers, and in particular SMEs, to invest in professional re-training, upskilling and development of those already in the workplace should be introduced in the Autumn Statement to help address historic patterns of employer under-investment in the UK's workforce.
- The government should provide tax breaks to employers to support them to invest in upskilling and professional development for their employees. These incentives would encourage part-time and work-based continuous development, including employer-sponsored degrees and help address historic patterns of employer under-investment in the UK's workforce.

Investing in professional development in education, health and social care staff

DEVELOPING THE NHS WORKFORCE

23. The 2012 HE funding system in England has been much less favourably received by mature and part-time students, groups which make up a much greater proportion of the nursing, midwifery and allied health student cohort than the HE cohort as a whole. In the 2012/13 cohort, 61% of all UK full-time first degree students were under the age of 21 compared to 29% of NHS bursary holders. Over 25% of nursing degree students were from a BAME background compared to 22% of all first degree students while 14% of nursing students were from a Black ethnic group compared to 6% overall (see Figure 2).¹³

Figure 2



24. There are significant risks in the government's assumption that the HE student loan system in England will be perceived favourably by this cohort of students. Moreover, no assessment has been made across the country to identify localities where recruitment may be at risk due to higher than average mature student recruitment.
25. To ensure the new system works effectively, ring-fenced funding for placements should be identified for all regions. In addition, new funding should be allocated to support the professional development and the study of advanced qualifications of staff already in the workplace. This is essential if the government is to achieve its ambitions for a 7-day NHS.
- The government should allocate additional specific funding for placements and the continuous professional development of professional healthcare students and staff to deliver the workforce required to sustain improvements in patient care and the delivery of NHS services.

¹³ HESA 2012-13

Supporting high-quality teacher training and pedagogical expertise

26. In 2012 Ministers changed the regulations to remove the requirement for teachers in academy schools to be qualified. The number of unqualified teachers in England has risen from 16,000 to 20,300 in state funded schools¹⁴. At the same time the government has increased the time that trainee teachers are required to spend in school during their training.
27. The National Audit Office (NAO)¹⁵ and the Public Accounts Committee¹⁶ have independently criticised the DfE's approach to the reform of teacher education pointing out that the School Direct programme has never been evaluated. Moreover, the reforms to ITT and the replacement of the Training Development Agency by the National College of Teaching and Leadership (NCTL) which was brought into the Department for Education, have coincided with increasing problems of teacher supply and teacher shortage.
28. The NAO's report pointed out that the government had adopted a short-term approach to ITT provision which had not been informed by an adequate understanding of local and regional recruitment issues. It recommended that further work should be undertaken to examine the benefits of different training routes to develop a better understanding of recruitment landscapes at the local and regional level.¹⁷
29. The single year allocation of ITT places to university providers, exacerbates the issues and challenges in ensuring that there are sufficient numbers of new teachers in every region. The government needs to invest in stability in developing and training such a vital workforce, offering all providers of initial teacher training multi-year allocations to sustain provision and aid effective planning.
 - The government should ensure all university providers of initial teacher training have multi-year allocations of places to enable them to effectively meet national and local needs for new teachers.
30. As a result of the reforms introduced since 2010, routes into teaching have become increasingly varied and postgraduate trainees spend the majority of their time in schools, providing fewer opportunities for reflection and training in key areas. The danger of insufficient initial training and the lack of any national framework for continuous professional development means that teaching can become superficial and performative, leading teachers to focus on knowledge-based learning rather than conceptual understanding. Currently much CPD is focused on addressing extensive changes to policy and the curriculum which have been, and continue to be, introduced in time-frames that are very short.
31. Teachers and schools should be able to make decisions on professional development needs, based not on simply what may be available, but from high quality CPD options provided by excellent teacher educators in universities and subject organisations. Like other professions, teachers need opportunities for CPD away from the classroom and the school in which they are working. To address this there should be a National Framework of Entitlement beyond ITT so that all teachers can engage with research in their field, both on how to improve teaching and subject knowledge. Schools should be funded to enable such entitlements to become a reality and expectations, including in terms of working conditions. In addition Ofsted inspection regimes should be adjusted to support access to a system of Professional Development Entitlements for teachers.
 - The government should introduce a new fund for professional development, available to all teachers at any level of their careers. It should include incentives to work with university education departments to ensure teachers can engage or participate in the latest pedagogical research and scholarship.

¹⁴ *School Workforce Census*

¹⁵ NAO, *Training new teachers*, <https://www.nao.org.uk/wp-content/uploads/2016/02/Training-new-teachers.pdf>

¹⁶ House of Commons Committee of Public Accounts, *Training new teachers*, <http://www.publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/73/73.pdf>

¹⁷ <https://www.nao.org.uk/report/training-new-teachers/>

Boosting the capacity of all universities to trade in the global higher education market

32. The higher education export market is extremely valuable to the UK bringing in around £11bn each year. The total number of international students at UK universities in 2014-15 was 311,950 which is 14% of the total student population. Of these, 105,600 (34% of all international students), were studying at modern universities.
33. All UK universities have a high-quality reputation globally, and can attract international students in large part due to being quality assured through an independent quality assurance system. International students can therefore be sure that they will experience high quality teaching and learning.
34. However, there are serious challenges in this area. In recent years, there have been significant declines in applications from international students (Figure 3), and the UK risks losing our further in terms of its share of these extremely valuable export market as other countries compete for international students.

Figure 3. Decline in international students (undergraduate & postgraduate) for the period 2010-11 to 2014-15 (selected countries sending more than 1000 students per year)

Sri Lanka	-56%
India	-53%
Philippines	-51%
Pakistan	-40%
South Africa	-19%
Taiwan	-18%
Saudi Arabia	-16%
Japan	-4%

35. The government should act to support and promote the capacity of all UK universities to compete in this market to ensure that the UK continues to benefit economically and in terms of the 'soft power' that is associated with the HE sector. All regions and countries of the UK benefit economically, culturally and socially from the study of international students in the UK. However, current Home Office visa regulations and new proposals to base the latter on a differentiated visa regime with the 'best' universities and the 'best' international students given preferential treatment will damage the reputation of all UK universities and further undermine the UK's market share. There is no justification for the Home Office to distinguish between UK universities since all UK universities are quality assured and quality is not in doubt. Previous governments have recognised that UK higher education is a key exports sector and supported its expansion both through visa regimes and funding initiatives. HMT should use the Autumn Statement to fund a new initiative to boost the engagement of all UK universities in the international market.
- The government should invest in a new funding initiative to boost the engagement of all UK universities in the global HE market.