Universities - Putting the learner at the centre

Higher education outcome agreements: achievements and ambitions
Higher Education Outcome Agreements: Achievements and Ambitions

May 2014

Today we are publishing the university Outcome Agreements for 2014-15, which demonstrate the outcomes that universities – both individually and collectively – aim to deliver in return for the Scottish Government’s £1 billion investment.

This summary sets out some of the achievements of universities since Outcome Agreements were introduced in 2012-13, and also looks forward to what universities have committed to deliver in academic year 2014-15 and beyond.

Structured around seven key priority areas – Widening Access, High Quality Learning, Right Learning in the Right Place, A Developed Workforce, World-Class Research, University-Industry Collaboration, Sustainable Institutions – this summary reflects something of the unique context and particular mission of Scotland’s 19 universities.

If the commitments in the 2014-15 Outcome Agreements are met:

- Access will be more evenly spread: 2.5% more students from the 40% most deprived areas will have access to higher education (HE)
- Articulation will be increased: 1,100 more students will move seamlessly from college to the second or third year of university
- Retention will be better: 2% more students (about 500 students) will be retained
- Research performance will be improved: our universities will continue to deliver world-class research and be internationally competitive
- Industry-University collaboration will be transformed: the new Innovation Centres will lead to greater exploitation of research for economic and social benefit
Universities are working towards improving access for people from the widest range of backgrounds

In their Outcome Agreements, institutions have committed to:

- Increase the proportion of Scottish-domiciled undergraduate entrants from the 40% most deprived areas
- Grow the number of students articulating from college to university

To help institutions achieve these ambitions, in 2013 the Scottish Funding Council (SFC) put **1,747 additional student places** into the sector specifically for access and articulation. These additional places will allow universities’ to stretch their ambitions as they seek to extend further the opportunity for HE to a wider range of people.

Universities are improving access by:

- Developing, or re-developing, their admissions policies to take into account students’ backgrounds. For example, institutions are using the **Scottish Index of Multiple Deprivation (SIMD)** to flag those students living in the 40% most deprived areas and, in some cases, adjusting their offers where there is evidence of potential. Additionally, institutions are considering students from schools with low HE progression rates into HE as well as students with certain protected characteristics (for example, race, gender, or disability)
- Developing, expanding or re-launching summer schools and other programmes focused on students from deprived or non-traditional backgrounds with some institutions guaranteeing students a place if they successfully complete the programme

*The Royal Conservatoire of Scotland*, recognising that it does not recruit through UCAS, has developed its own mechanisms for monitoring progress on recruitment from schools with low progression rates.

*The University of Glasgow* is improving access by increasing its number of entrants from the 20% most deprived areas (SIMD20) studying professional degrees including medicine, dentistry, engineering, law, education and accountancy and has increased its intake from 113 in 2010-11 to 142 in 2012-13.

*In its efforts to widen access, Edinburgh Napier University* monitors a range of groups including students from low progression schools, first in family and care leavers.
Access

Percentage of Scottish-domiciled undergraduate entrants from the 40% most deprived areas

Universities are increasing the number of students progressing from college to HE by:

- Working closely with colleges to create new curriculum pathways which allow students completing a HNC to go straight into second year at university and those completing a HND into third year
- Integrating courses which join up colleges, universities and – in some cases – industrial partners to provide students with a richer educational experience that will make them more employable

In 2013 SFC awarded Glasgow Caledonian University 157 additional articulation places to help it achieve its ambition to have over 1,000 articulating students in academic year 2014-15.

In partnership with colleges and industry, the University of Strathclyde has launched an Engineering Academy, providing a pathway from HNC to BEng and MEng-level programmes across multiple Engineering degree programmes.

Heriot-Watt University is significantly increasing its articulation numbers with 9% of its overall Scottish domiciled entrants in 2013-14 coming through this route. Heriot-Watt feels the success of this scheme has also had a positive impact in general on collaboration and recruitment from colleges.

Glasgow School of Art has received funding from SFC to establish a new post focused on creating new articulation pathways. From 2014, Glasgow School of Art will have an additional 15 students articulating from college.
Working in partnership, the University of Stirling and Forth Valley College have developed four new, innovative skills programmes in Applied Biological Sciences, Heritage and Conservation, Digital Media and Applied Computing. All programmes integrate the development of technical skills, industry and entrepreneurship awareness, industrial experience and academic excellence. The overarching aim is to ensure that graduates are work-ready and meet the critical skills requirements of key sectors in the Scottish economy.

Articulation

Number of students articulating from college to second or third year of university.

![Number of HNC/HND articulating students](chart.png)
Universities are delivering high quality learning and improving the learner journey

In their Outcome Agreements, institutions have committed to:

- Ensure that strategies are in place so that more students complete their courses
- Provide extra support for students identified as ‘at-risk’ of dropping out
- Enhance the learning experience for all students

These commitments are making it possible for us to make significant progress towards our ambition for a 2% increase in retention for the sector which equates to a further 500 students being retained.

Universities are improving the student experience, generally, and retention specifically by:

- Developing monitoring systems for retention for ‘at-risk’ groups, including those from deprived backgrounds as well as those with protected characteristics
- Putting in place early intervention strategies to prevent high risk groups from dropping out
- Enhancing academic and pastoral support for all students

By developing more detailed monitoring arrangements, the University of the Highlands and Islands (UHI) has improved retention for the most deprived 20%, exceeding its ambitions in 2012-13 of 69% and achieving 72.6%.

The University of St Andrews is offering pre-transitional events and summer schools for access students in order that networks are formed providing them with a positive start to their university experience.

Through employing a range of strategies, Scotland’s Rural College (SRUC’s) retention increased for full-time HE students from 72% in academic year 2011-2012 to 86% in 2012-13.

The University of Edinburgh is revitalising its academic and pastoral support and is investing £3.5 million on personal tutors, peer support, IT tools, and training.
Retention

Retention rate of full-time Scottish-domiciled undergraduate entrants

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<tbody>
<tr>
<td>National Aggregate Retention</td>
<td>89.4%</td>
<td>90.3%</td>
<td>90.8%</td>
<td>91.3%</td>
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Universities are delivering ‘the right learning in the right place’. In their Outcome Agreements, institutions have committed to:

- Provide education that best meets the changing social and economic needs of Scotland
- Offer provision which will improve the life chances of learners
- Develop collaborative partnerships between institutions to improve the pattern and spread of provision across Scotland

These commitments to provide the ‘right learning in the right place’ are contributing to our aims to secure coherent provision of HE in Scotland. We are particularly interested in how institutions are supporting language study, particularly Gaelic; how they are enhancing and increasing their provision for STEM (science, technology, engineering and mathematics) subjects; and how they are working to enhance collaboration in certain areas, such as nursing. SFC is also interested in ensuring opportunities through traditional and non-traditional modes of study for those living in rural and remote areas.

Universities are enhancing their provision by:

- Offering more opportunities to study STEM subjects. Recognising the high demand for STEM subjects, in 2012-13 SFC provided 300 additional places for STEM students, building on the increased number of places offered for STEM in the last two years. These places along with those allocated by SFC in 2012-14 in support of undergraduate skills in Life Sciences and Energy have been used to support the full range of science, technology, engineering and mathematics subjects
- Promoting Gaelic and the National Gaelic Language Plan. Fourteen institutions have stated that they now have, or are committed to developing, a Gaelic language plan. Courses are being delivered not only by those universities which have traditional ‘Celtic’ departments but also by other institutions offering short courses. Some universities are now providing beginner level Gaelic or improved fluency classes for both staff and students
• Increasing collaboration in **nursing**. Universities with nursing provision have been involved in significant programmes of collaboration, including partnership working and sharing facilities in order to streamline nursing provision on offer across Scotland. In addition some nursing providers are developing postgraduate and research level provision in response to demand for nursing beyond the pre-registration level

• Extending opportunities for study for **rural and remote** areas as well as for those who, for a variety of reasons, benefit from non-traditional modes of delivery

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**STEM**

*The University of Dundee*, in collaboration with Dundee and Angus College, is using 45 of its 150 additional widening access places for STEM subjects.

In demonstration of the high demand for STEM provision, the *University of Glasgow’s* applications for STEM subjects increased by nearly 18% in 2013.

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**Gaelic**

*Heriot-Watt University* is exploring the inclusion of Gaelic as a main or elective language in its Translation and Interpreting programmes at postgraduate and undergraduate level.

A strand of Gaelic provision is offered under initial teacher education, with providers improving recruitment by guaranteeing interviews for applicants and designing courses in innovative ways. Such approaches are proving a success: by employing these strategies, the *University of Strathclyde* doubled its intake into the PGDE (Primary) Gaelic Medium course in 2012-13.

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**Nursing**

To enhance efficiency and quality of provision, the *Universities of Queen Margaret, Edinburgh* and *Edinburgh Napier* are collaborating on both undergraduate and postgraduate provision, placement provision and mentoring opportunities.
Rural provision

In 2012-13 the Universities of Glasgow and West of Scotland continued to grow their provision for degree level study via the Crichton Campus in Dumfries with SFC supporting this through allocating an additional 50 places, 35 for the University of the West of Scotland and 15 for the University of Glasgow. Moreover, in 2012-13, both Universities received additional places for articulation at Crichton with Glasgow using these to further develop its MA in Health and Social Policy.

SRUC and UHI are working in collaboration along with the college sector in developing the National Strategy for Land-based Education which aims to provide coherent land-based provision across Scotland with a strong impact on provision in rural areas.

Open learning

Earlier this year, SFC awarded over £1.2 million towards the development of Open Educational Practices (OEP), a project led by the Open University in Scotland in partnership with the Universities of Strathclyde, Edinburgh, Glasgow and UHI. OEP will facilitate best practice in open education through the development of a peer support network, an online hub and awareness raising activities and is intended to benefit the whole of the tertiary education sector in Scotland.

Several universities are now developing Massive Open Online Courses (MOOCs) to engage learners not only from across Scotland but from all over the world. The University of Edinburgh, for example, has attracted tens of thousands of learners from across the globe since the launch of its first MOOCs in 2013 and plans to grow its course offerings from six to 25 by the end of 2014.
Universities are developing work-ready students

In their Outcome Agreements, institutions have committed to:

- Increase the proportion of students entering graduate-level occupations
- Enhance skills development for the world of work
- Develop students for an increasingly competitive international labour market

To ensure Scotland has a fully developed workforce, SFC wants those entering work from Scottish universities to have the skills and knowledge to find a graduate-level job – or to create their own. To realise these ambitions for Scotland, universities are engaged in a wide variety of activities, from the development of curricula in tandem with industry to working with Trade Unions to deliver HE in the workplace.

Universities are improving the employability of students by:

- Engaging employers and professional bodies in the development of curricula ensuring it is market relevant
- Providing industry placements and other work-related learning opportunities to give students experience of the workplace and to develop skills ‘live’
- Dedicating resources – including staff – to develop students’ enterprise and entrepreneurial skills
- Offering more international experiences and removing barriers to students taking up opportunities to study abroad

The first university-based Business Gateway service in Scotland has been established at Queen Margaret University with an expectation that there will be an increase of start-ups by students.

Robert Gordon University is establishing a SME hub in an effort to secure an additional 250 work-based experiences for students.

The Open University in Scotland is working with employers to ensure their employees have the appropriate skills. Their provision in this area includes working with Trade Unions to develop workshop based courses to be delivered within the workplace, as well as developing an online Work and Learning Evidence Hub for anyone involved in managing and developing learning in the workplace.
Learning to Work Two (LTW2), established by SFC against the backdrop of a deepening economic crisis, was awarded £4.7 million across four projects from 2010-14. The purpose was to help those students in less vocational focused subjects to gain work experience through internships and placements. The four projects have enjoyed significant demand among students and employers and have demonstrated the benefits of placement programmes. The projects include:

- **Third Sector Internship Scotland (TSIS):** led by **Queen Margaret University** and the Open University in Scotland in partnership with the Scottish Council for Voluntary Organisations (SCVO), TSIS has placed nearly 300 students in flexible format paid placements with third sector organisations.

- **E-Placements Scotland:** led by **Edinburgh Napier University** and the E-Skills Sector Skills Council, the project aims to provide 750 students with paid placements in the IT industry ranging from 3-12 months.

- **Making the Most of Masters:** winner of the 2013 Times Higher Education Awards for Outstanding Employer Engagement, is a partnership between the **Universities of Edinburgh, Aberdeen and Stirling**, and works with a range of industry partners to provide taught postgraduate students the opportunity to undertake a work based dissertation in lieu of a traditional Masters dissertation.

- **Education into Enterprise:** led by **Adam Smith College (now Fife College)** to make accredited work-placement opportunities available to students enrolled on HE courses which do not currently offer this option at participating institutions. The project has engaged over 500 employers and involves students undertaking a 30-90 day placement.
Universities are continuing to grow their reputation for world-class research

In their Outcome Agreements, institutions have committed to:

- Improving or maintaining their share of UK research council funding
- Engaging in research collaborations
- Removing barriers to careers in research

SFC funding for research is focused on departments with a track record in world-leading and internationally excellent research and on national strategic interventions – such as research pooling – to enhance the capacity, quality and impact of our research base. This supports our universities to attract increased resources from major research funders. Excellence in research provides Scotland with an enhanced platform for inward investment, innovation and sustained economic growth.

Our universities share our ambitions for a world-class research base and our national ambitions for research is to maintain Scotland’s proportionately high share of UK research council funding at 15%.

Research income

Scottish universities total research grants and contracts income, all sources (£000s) (HESA)

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<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
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<tbody>
<tr>
<td>Scottish</td>
<td>574,103</td>
<td>601,314</td>
<td>613,404</td>
<td>609,886</td>
<td>639,225</td>
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<td>universities</td>
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Scottish universities % share of UK research council income (HESA)

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<tr>
<th></th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
<th>SFC ambition</th>
</tr>
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<tbody>
<tr>
<td>Scottish</td>
<td>14.3%</td>
<td>14.9%</td>
<td>14.9%</td>
<td>15.2%</td>
<td>15.7%</td>
<td>&gt;15%</td>
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<tr>
<td>universities</td>
<td></td>
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Universities are actively working to increase their research income

Abertay University aims for sustained 2% year-on-year growth in research income from a base of £1.5 million in 2012-13.

Heriot-Watt University has targeted an increase in research income of 75% over five years, from £23 million in 2011-12 to £40 million by 2017-18. The University’s Outcome Agreement also captures its extraordinary success in winning business and industry funding, which represents 25% of the University’s total research income.

The University of Stirling’s ambition is to double its research income to £16 million by 2015-16, from a baseline of £8 million in 2011-12.
The Research Excellence Framework

All of Scotland’s universities have made submissions to the Research Excellence Framework (REF) 2014. The outcome of this UK-wide assessment exercise will be announced in December 2014, and SFC and the universities recognise it will be challenging to improve on our already very strong performance. However, evidence suggests that our institutions will be able to improve on the results of the Research Assessment Exercise (RAE) 2008.

Heriot-Watt University has significantly increased the quality threshold for inclusion in its REF submission, while maintaining headcount at RAE2008 levels (approximately 80% of all academic staff).

Robert Gordon University is focusing its ambitions and resources in translational research around energy and health, aimed at delivering a step-change in its support for these key industries.

SRUC is aiming for a REF2014 top 3 UK ranking in Agriculture, Veterinary and Food Science. This is SRUC’s first assessment submission and is a joint submission with the University of Edinburgh.

Global Excellence initiative

In a further demonstration of the commitment of the Scottish Government to supporting the Scottish research base, in May 2013 the Cabinet Secretary for Education and Lifelong Learning launched a £14 million Global Excellence investment aimed at enhancing the competitiveness and global standing of Scottish research, with universities committed to matching this sum. All Scottish universities received a proportionate share of this funding based on their SFC Research Excellence Grant.

The University of Edinburgh has used its Global Excellence funding towards the recruitment of 148 Chancellor’s Fellows – early career academics who exhibit clear potential to become international leaders in their respective disciplines – as part of its strategy to reach the top 15 in the QS World University Rankings. The University reached 17th in the world in the 2014, moving up from 21st place the year before.

Research collaboration

Collaboration continues to be a very powerful theme in our universities’ plans for research. For example, through research pooling in Physics (Scottish Universities Physics Alliance, SUPA) the Universities of Glasgow, Strathclyde, St Andrews,
**Edinburgh** and **Heriot-Watt** have established with their German counterparts the International Max Planck Partnership (IMPP). IMPP links research world-leading research in quantum physics in Scotland with five Max Planck institutes.

**Peter Higgs Nobel Prize puts Scottish Physics on the map**
Scotland was already seen as a world-leader in physics research, but the success of the **University of Edinburgh's** most famous physicist has catapulted profile of Scottish physics into the stratosphere. Recognising the potential this has to attract the next generation of physics researchers to Scotland, SFC awarded £4 million to the University of Edinburgh for facilities and equipment in the Higgs Centre for Theoretical Physics, and to support new PhD students at Edinburgh and other Scottish universities through the Scottish Universities Physics Alliance (SUPA). This builds on the £11 million capital funding to establish a centre for space technology and big data research, building bridges between academia and industry, which will also be named after Professor Higgs announced by the UK Government, which will attract £2 million a year for Science and Technology Facilities Council.

**New collaboration with Hong Kong on energy and life sciences research**

The Research Grants Council of Hong Kong and SFC have signed a framework agreement to share expertise and explore innovative new ways of working together in energy and life sciences research. The agreement, witnessed by Scotland's First Minister in November 2013, will build on Scotland's record of successful collaborations among universities to stimulate progress in research. Scotland's next generation of research leaders will benefit from the links with Hong Kong.

**Removing barriers to research careers**

Our universities continue to remove barriers to careers in academia and research, and enhance the diversity of its workforce. A benchmark of the sector’s progress is the adoption of the [Athena SWAN Charter](#), recognising commitment to advancing women’s careers in the STEM subjects (science, technology, engineering, maths and medicine). Nine of Scotland’s universities have already achieved Athena SWAN institutional Bronze awards, with five academic departments achieving Silver, and the University of Edinburgh’s School of Chemistry is one of only four departments in the UK to attain a Gold award.
Universities are continuing to strengthen ties with industry

In their Outcome Agreements institutions have committed to:

- Work to create new structures for industry-university collaboration
- Intensify collaboration and partnership working with the Scottish Government and its agencies
- Exploit research for the benefit of business and the economy

While most of the Outcome Agreements identify institution-specific goals in relation to improving interactions with business and industry, many of the key developments in this area are national multi-institutional collaborative engagements among universities and industry.

Universities are enhancing collaboration with industry by:

- Continuing to build on the success of research pools which were established with a £150 million investment by SFC; such pools are attracting significant funds from industry
- Committing to working with Innovation Scotland – a partnership of the university sector, SFC, the enterprise agencies and Government with the mission to develop, simplify and enhance the effectiveness of the support universities provide to business
- Using innovation vouchers made available through Interface, which brokers effective partnerships between industry and academia
- Implementing ‘easy access IP’ ensuring their Intellectual Property is easily available to business and industry to be used for the benefit of the economy and society
- Working with the newly established Innovation Centres

The life sciences research pool

The Scottish Universities Life Sciences Alliance (SULSA)¹ has attracted £16.3 million of funding to establish the European Lead Factory for drug discovery as part of the Innovative Medicines Initiative. This builds on, and recognises, the excellence of drug discovery science represented across SULSA, a key underpinning for the medicines of the future. In addition, SULSA, is working across the UK, and with international pharmaceutical companies, to establish the National Phenotypic Screening Centre that will complement their efforts in securing the European Lead Factory. Further developments on this are expected in 2014-15.

1. Scottish Universities Life Sciences Alliance, a partnership between Aberdeen, Dundee, Edinburgh, Glasgow, St Andrews, and Strathclyde Universities
Interface and innovation vouchers

It is evident that SFC funded Interface Innovation Voucher Scheme continues to broker effective partnerships between Scotland’s universities and SMEs allowing them to benefit from research development. Since the launch of the Innovation Voucher Scheme in 2009, over 600 vouchers valued at £2.9 million have been awarded to Scottish universities and businesses.

Using innovation vouchers

- **The University of Abertay** and Tait Enterprise have formed a partnership to develop a consultancy tool which will support SMEs to improve the financial performance of their businesses
- **The Open University in Scotland** and Community Energy Scotland have worked together to design an online open access course to support communities and individuals to develop their own energy efficiency and generation measures
- **Glasgow Caledonian University** is working with the Homeless World Cup (HWC) to scope out a framework for research into the past, current and future social impact of HWC at national and international levels

Innovation Centres

Eight Innovation Centres have now been created to help enable collaborations of university staff, research institutes, and businesses in key sectors to exploit research for economic growth and social benefits for Scotland. The Outcome Agreements show that at this early stage 16 Scottish universities are directly involved in at least one of the Innovation Centres. The Innovation Centres are as follows:

- **Digital Health Institute** (DHI): technologies and solutions for future health care delivery
- **Stratified Medicine Scotland**: next generation sequencing for future health care delivery
- **CENSIS**: Sensor and Imaging Systems (SIS) as a key enabling technology impacting on a wide range of industry sectors
- **Industrial Biotechnology Innovation Centre**: as a key enabling technology with a particular focus on Scotland’s low carbon economy
- **Oil and Gas Innovation Centre**: with a particular focus on increasing production and reducing costs in the UK Continental Shelf
- **Scottish Aquaculture Innovation Centre**: solutions for sustainable and more efficient fish production
• **Construction Scotland Innovation Centre**: connecting the construction industry for future growth in areas such as off-site production and low carbon building technologies

These Centres are still in the early stages of development but some successes are already being realised. For example, the Digital Health Institute has collaborated with Samsung and NHS Fife to develop BabySam, a camera placed above the incubator that allows parents to view their newborn baby on a remote tablet computer, reducing the impact of being separated from their baby.
Universities are financially sustainable

We have received the results of the sector’s most recent financial statements showing that the HE sector is in good financial health. SFC seeks assurance from all institutions that they are investing responsibly in their estates for teaching and research and that they have in place appropriate and effective governance structures which ensure sound governance, internal control and risk management.

Universities are working towards becoming environmentally sustainable

The majority of Scotland’s universities have signed up to the Universities and Colleges Climate Commitment for Scotland (UCCfS) and are looking at ways to reduce their carbon footprint.

In seeking a step-change in the environmental sustainability of institutions, SFC has made an investment of £20 million in carbon reduction projects at three institutions: the Universities of St Andrews, Stirling and Strathclyde. The three projects were selected because of their novel approach to carbon reduction, their catalytic impact on the ‘green’ supply chain, and their potential to be ‘demonstrators’ for the HE sector. All three initiatives are now underway. The completion of the project at St Andrews – a biofuels energy centre – will make a significant contribute to that institution becoming the UK’s first carbon neutral university by 2016.

<table>
<thead>
<tr>
<th>Project</th>
<th>SFC funding</th>
<th>CO2 reduction per annum/over 5yrs (estimate)</th>
<th>Financial savings (estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of St Andrews: Guardbridge Energy Centre</td>
<td>£10 million</td>
<td>12,000 pa</td>
<td>£4 million pa (by year 9)</td>
</tr>
<tr>
<td>University of Strathclyde: CHP District Heating Network development</td>
<td>£8 million</td>
<td>15,700-17,700 pa</td>
<td>£4.3 million pa</td>
</tr>
<tr>
<td>University of Stirling: CHP District Heating network upgrade</td>
<td>£2 million</td>
<td>3,597 pa</td>
<td>£449,000 pa</td>
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Challenges ahead

There is much more work to be done in this area. In spite of the good work institutions are doing to reduce their carbon footprint, their emissions are going up. This is because activity is increasing on the campuses as a result of success in securing additional research funding and attracting greater numbers of international students. SFC will continue to work with the sector to find innovative ways to make universities more environmentally sustainable.