



Manchester
Metropolitan
University

Environmental Sustainability Statement

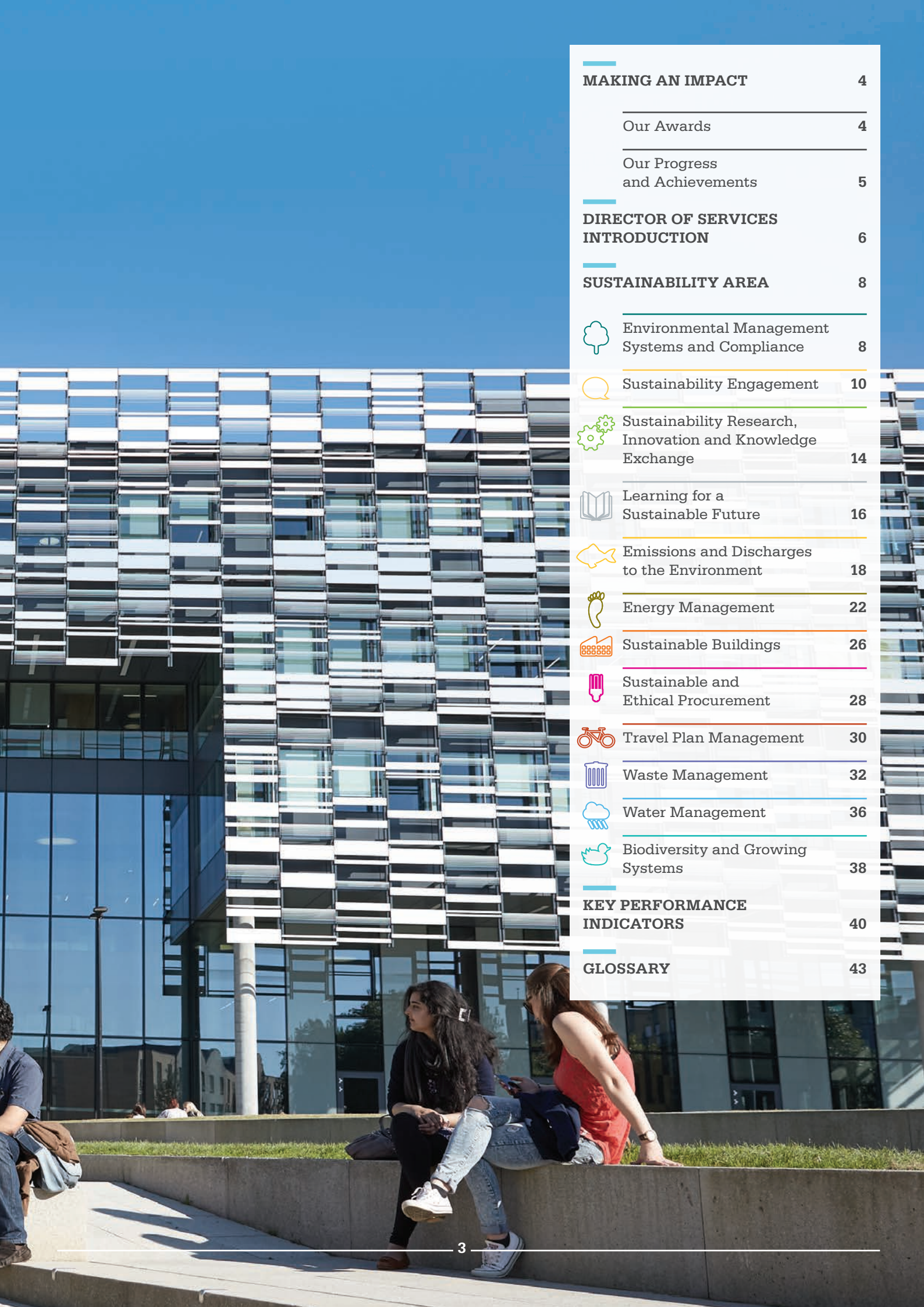
2014-2015








Let's make a
sustainable planet

OUR REPUTATION AS THE UNIVERSITY FOR WORLD-CLASS PROFESSIONALS WILL INCREASINGLY DEPEND UPON HOW WE EMBED ISSUES PERTINENT TO SUCCESS IN THE ENVIRONMENTS OF THE FUTURE

ENVIRONMENTAL SUSTAINABILITY STRATEGY 2014-2020





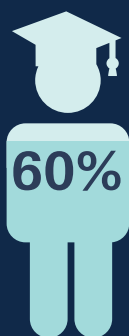
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Making an Impact

Our Awards



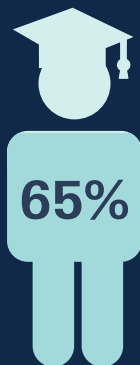
Our Progress and Achievements



NEW STUDENTS

60%

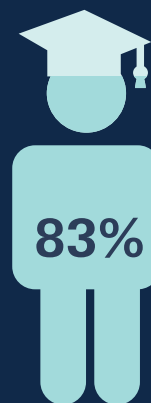
would like to learn about GLOBAL SUSTAINABILITY ISSUES



RETURNING STUDENTS

65%

said they better understand KEY GLOBAL SUSTAINABILITY ISSUES



CURRENT STUDENTS

83%

think that we're an ENVIRONMENTALLY SUSTAINABLE UNIVERSITY

42.4%

OF WASTE REUSED OR RECYCLED



99%

OF WASTE DIVERTED FROM LANDFILL



32.9 TONNES OF FOOD WASTE sent to an ANAEROBIC DIGESTION PLANT



31%

Single Occupancy Vehicle RATE ACHIEVED



53

students are CERTIFIED CARBON LITERATE



69 BICYCLES

for staff through our new CYCLE TO WORK SCHEME

38%



of vehicle fleet is ELECTRIC!

1,520,586 kWh

OF LOW-CARBON ELECTRICITY

generated by our Combined Heat and Power unit



ENOUGH TO SUPPLY

491

UK HOMES PER YEAR



Our vision is to be a sustainable University

In order to achieve our ambitious targets and commitments, it is imperative that we embed environmental sustainability into our culture, buildings and operations.

In 2014, we set out a new Environmental Sustainability Strategy for Manchester Metropolitan University taking us to 2020. This reflects our determination to put Environmental Sustainability at the heart of our University business. During the past 12 months, we have focussed on implementing the new strategy and our performance is outlined in the pages of this report.

WE'VE SET AMBITIOUS TARGETS TO ACHIEVE A 50% REDUCTION IN CARBON EMISSIONS AND TO REUSE AND RECYCLE 85% OF OUR WASTE BY 2020



We report transparently on our progress towards achieving our Environmental Sustainability objectives and targets.

In 2014-15 we have highlighted a need to revisit some of our targets. We will review their achievability, as well as the actions the University should take. It is important to recognise that, in some instances, our performance against targets has been affected by changes in the way the University operates and has developed.

This is especially important with regard to our energy consumption, where there has been an increase in the student residential capacity, longer building operation times to support the student experience, and maintenance of our legacy estate. Over the course of 2015-16, our targets will be reviewed to reset our ambitions for the emerging and changing University journey.

We are proud that we have remained in the top three universities for our Environmental Sustainability performance and we were crowned National and International Green Gown Award winners for our student food network, 'MetMUnch'.

Attaining EcoCampus Gold accreditation has taken us to within one step from becoming accredited to the International Environmental Management Standard, ISO14001.

We are also one of the first fifteen universities to achieve the NUS Responsible Futures accreditation mark, which recognises our strong commitment to embedding social responsibility and Environmental Sustainability into the student learning experience.

We have continued to ensure that our students are gaining the necessary skills to embed sustainability in their future lives and careers; enabling them to become adaptable, sustainability-literate citizens by firmly placing opportunities to understand and experience Environmental Sustainability in programmes such as 'MMU Futures'.

We are extremely proud of our achievements and are committed to continuous improvement towards embedding Environmental Sustainability into University business.

Our Environmental Sustainability Strategy maps our route to becoming one of the most sustainable universities in the world. Looking beyond 2014-15, we will continue to deliver a range of projects that maximise the impact and contribution to the Academic Strategy and our professional services, and that take us closer to our 2020 goals.

Thank you everyone for your support.

Paul Kingsmore
Director of Services
Chair, Environmental Strategy Board

Environmental Management Systems and Compliance

Our Aims

Develop an integrated approach to environmental management and embed environmental issues into all University business operations, faculties and departments.

Our Progress



**Eco
Campus**
★ **GOLD** ★
ACCREDITATION

We achieved the EcoCampus Gold accreditation in March 2015, meaning that we are just one step away from achieving the International Environmental Management Standard ISO 14001.

A key aspect of achieving EcoCampus Gold has been to develop a governance and reporting structure for Environment Sustainability. This has included reviewing our strategy and policy, setting SMART targets and monitoring performance.

We have developed an innovative approach to our Environmental Management System, the framework of which covers both the physical estate of the University and integrates sustainability into teaching, learning and research.

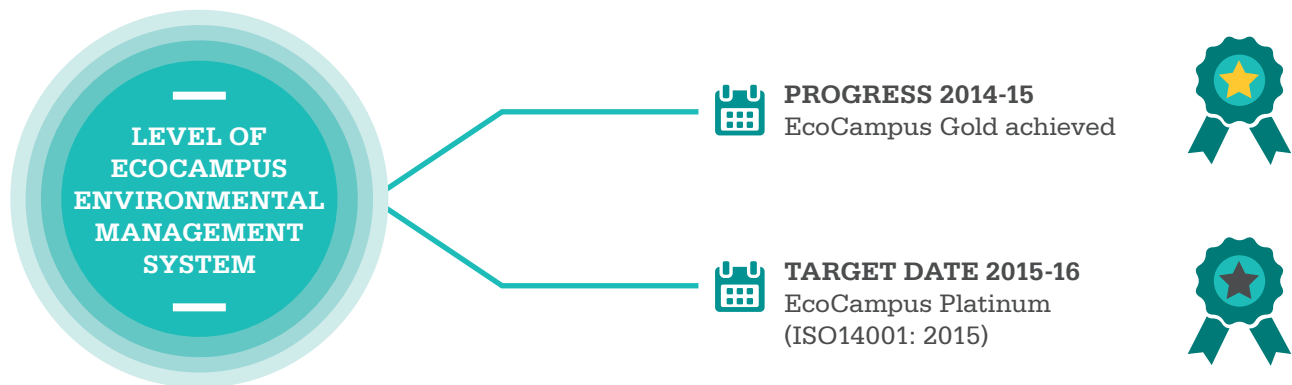
Waste and recycling legal compliance and staff development also formed a key part of achieving EcoCampus Gold. We engaged key stakeholders who helped develop waste procedures and identify training needs across the University. As a result, over 70 members of staff have participated in 'Waste Legal Compliance and Pollution Prevention' workshops.

We are now working towards the new ISO 14001:2015 standard, which we hope to achieve in early 2016.





Performance Targets



Sustainability Engagement

Our Aims

Offer diverse opportunities to staff and students to engage with the sustainability commitments of the University.

83%



OF STUDENTS THINK THAT WE'RE AN ENVIRONMENTALLY SUSTAINABLE UNIVERSITY – A 16% INCREASE ON THE PREVIOUS YEAR

53



STUDENTS ARE CERTIFIED AS CARBON LITERATE

Our Progress

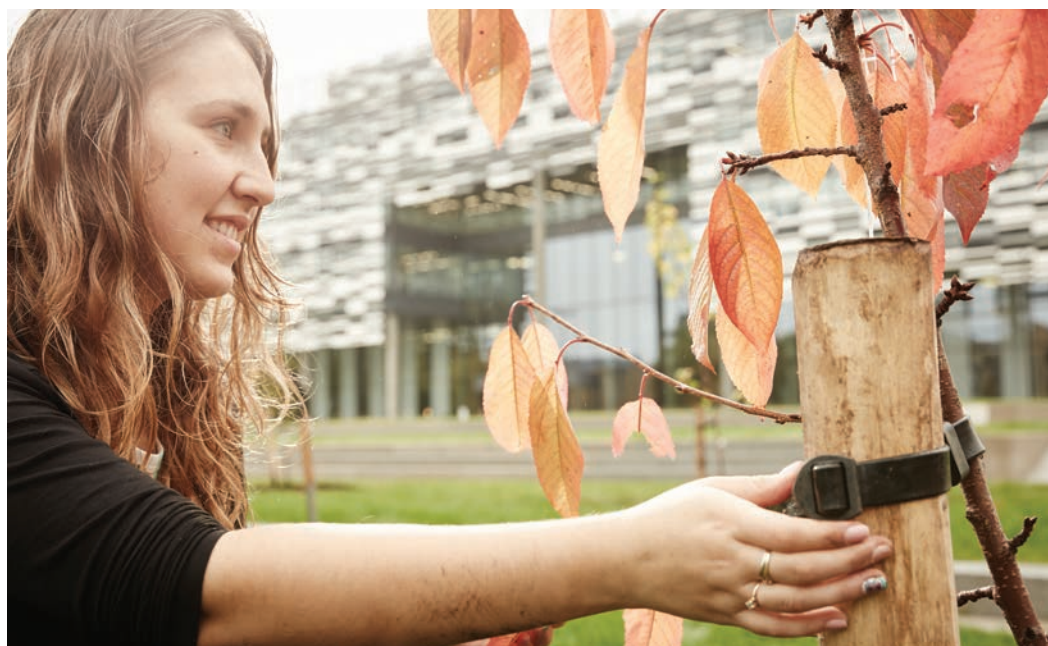
The Environmental Sustainability Strategy 2014-2020 sets out our approach to engagement and partnership working.

We have continued to engage our staff, students and wider communities in initiatives and projects to enhance knowledge and skills around sustainability. This work also helps to embed Manchester Met's reputation as a University that places great importance on being sustainable.

As part of this, we developed and launched a pilot staff engagement programme for sustainability – 'Ideas into Action' – to support professional and personal development.

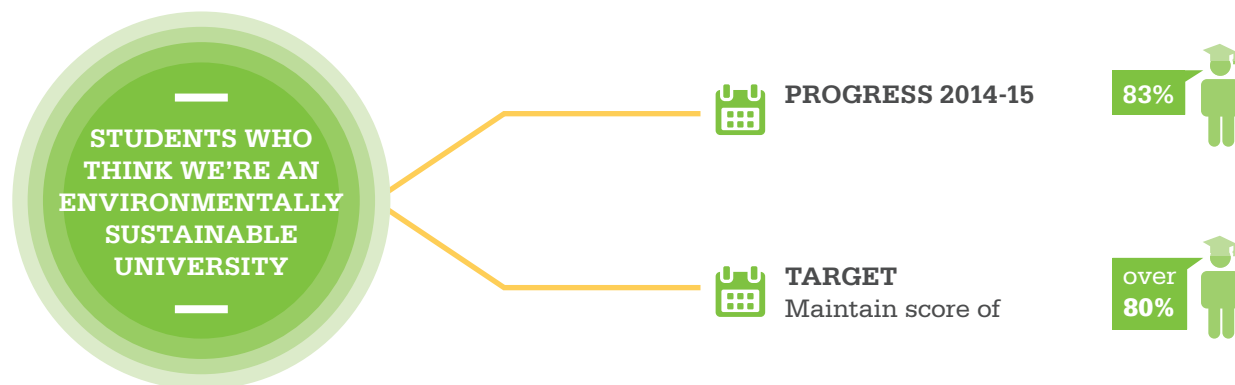
Ideas into Action aims to deliver projects that enhance the sustainability of our estates and operations; enhance knowledge and understanding of sustainability amongst staff and students; link to learning and research activities; and establish community and student partnerships.

A new digital 'Let's make a sustainable planet' news feed was also launched this year, sharing stories, news and events from across the University. Our readership is growing and it's helping to improve awareness and engagement across the campus and the wider city and region.





Performance Targets



Spreading the message with sustainability events



Carbon Kitchen Crime Scene


'MetMUnc' – our student enterprise network with a passion for sustainable and nutritious food – was recognised as sector-best, achieving National and International Green Gown Awards.

Delivering a range of community pop-up events were key to achieving the awards, and were an important part of the Carbon Literacy Project's annual engagement event, 'Carbon Active 2015'. The event, held over three days in Manchester Arndale shopping centre, promoted low-carbon living and was packed with activities and games with an emphasis on cutting carbon usage in the home.

For the event, MetMUnc created a cardboard Carbon Kitchen Crime Scene. Designed in a bright, retro 1950s style, the crime scene featured a number of conventional appliances including a fridge, oven, microwave and kettle.

MetMUnc students asked visitors to identify each appliance that used significant energy in the kitchen and ways in which they could reduce the energy used. A free booklet featuring tips on how to save energy in the home was handed out to all visitors. The team also shared sustainable recipes for a low-carbon diet.

The event was a massive success, with over 500 visitors across three days, plus visits from six primary schools. The students were also enhancing their employability and public engagement skills through educating the public and raising awareness of sustainability in a fun and engaging way.

A woman with red hair is looking at clothes on a rack. She is wearing a grey jacket over a black top and a pearl necklace. The background shows other people and more clothing racks, suggesting a busy event like a fair or swap.

Case Study

Tell Us About It

Manchester Metropolitan University and The Union hosted a day of activities at the new Student Union building to bring together people and projects from across Manchester and beyond.

During the day, a Sustainable Futures Fair saw students, staff and communities share, showcase and find out more about sustainability projects and initiatives. The focus was to engage audiences by inviting them to participate in live activities, such as our fashion and book exchange, Pop Swap, Love Food Hate Waste cooking demonstrations by celebrity chef, Richard Fox, bike maintenance classes and a series of debates and discussions across the day.

During the evening, we partnered with Manchester: A Certain Future to deliver the city's second 'Tell Us' event.

Based on the principle that sharing knowledge, insight and passion is critical for a sustainable future for Greater Manchester and the world, the event featured academics, students, business people and social entrepreneurs delivering a series of short and sweet five-minute talks on a variety of topics.

'Tell Us' showcased projects from the University and right across Manchester that are helping the city to adapt to the effects of climate change and enhance understanding of sustainability issues.

The joint event was delivered as part of our commitment to take a holistic and whole institution approach to the NUS Responsible Futures Project.

Sustainability Research, Innovation and Knowledge Exchange

Our Aims

We aim to define, deliver and grow the amount of sustainability-themed research activity undertaken at the University by 2020.

Our Progress



DELIVERED CARBON
LITERACY TO



We have undertaken a range of interdisciplinary research activities that deliver knowledge exchange and that have significant environmental and social impacts.

The Sustainability Research Network carried out a targeted survey, designed to identify and understand sustainability research and impacts at the University. The outcomes have been extremely useful in identifying further knowledge exchange and collaborative research opportunities.

Manchester Metropolitan University hosted the second World Symposium on Sustainable Development at

Universities in September 2014. The event aimed to foster collaborative dialogues on how to address problems and issues within the sustainability sector in Higher Education.

A truly international event, the symposium welcomed over 200 delegates from 25 countries, all arriving in Manchester to learn new techniques, get new insights and motivation for the work they do at their universities. The symposium showcased the theory and practice of sustainable development at universities, and created new international collaborative partnerships with Manchester Met.

Performance Targets

The research performance indicator to 'measure the percentage of staff carrying out sustainability research' was designed to enable Manchester Met to identify a baseline and grow sustainability themed research activities.

However, establishing a baseline has been challenging, and a number of alternative performance indicators will be investigated going forward.



Case Study

Triangulum

Manchester Met's cutting edge green credentials have seen the University become part of a €24 million European 'Lighthouse Project' called Triangulum.

As part of the Triangulum consortium, which successfully beat bids from a number of other cities including London and Milan, Manchester has teamed up with Eindhoven in the Netherlands, and the Norwegian city of Stavanger, with each conurbation creating low carbon districts as part of an EU scheme to drive Smart City development.

University partners, Corridor Manchester and Siemens will be instrumental in the delivery of a series of energy, ICT and transport projects planned for the Oxford Road area in Manchester. These will transform the area into a Smart City innovation zone, the first district of its kind in the UK.

All the partner cities have made significant progress towards becoming Smart Cities by restructuring former industrial economies into ones that are more knowledge and service orientated.

Selected areas will form the basis of 'living labs' – low energy districts that will focus on integrating a range of technologies to reduce energy consumption. The zones will also provide a live test bed for industrial partners who are looking at ways of increasing the use of renewable energies and electric vehicles, and of deploying intelligent energy management technologies.

Learning for a Sustainable Future

Our Aims

We will embed Education for Sustainable Development (ESD) and topics common to global citizenship into the curriculum, offering our students and staff opportunities to develop the skills and knowledge to live and work sustainably.

Our Progress

RETURNING STUDENTS

65%



SAID THEY BETTER UNDERSTAND KEY GLOBAL SUSTAINABILITY ISSUES

Manchester Metropolitan University was chosen as one of a handful of Further and Higher Education Institutions to develop and pilot a new NUS accreditation scheme, Responsible Futures.

The scheme aims to embed social and environmental responsibility across the formal and informal curriculum.

Since achieving the accreditation mark several established and emerging projects have developed amongst academics, The Union and professional staff communities.

A high-level curriculum review for all programmes was shared with the University's academic community at the Learning and Teaching Annual Conference.

The review has been widely used to create conversations around Education for Sustainable Development content in the formal curriculum.

Performance Targets



PROGRESS 2014-15
Responsible Futures Mark achieved



ON TRACK FOR TARGET DATE



Responsible Futures

Responsible Futures is an externally assessed accreditation mark, evaluating how well an institution is embeds and supports social and environmental responsibility.

A group of student auditors, led by the NUS, carried out a two-day audit and, in partnership with The Union, we achieved the NUS Responsible Futures Accreditation mark. The project engaged a wide range of staff through an ESD steering group who were instrumental in attaining the mark.

Participating in the project provided opportunities for collaboration, the chance to get involved in new and exciting projects related to ESD and Sustainability Engagement, and strengthened links between academic, professional and student support divisions across the University and The Union. It also raised the profile of ESD activities and initiatives amongst university communities.



Emissions and Discharges to the Environment

Our Aims

We aim to reduce our scope 1 and 2 carbon emissions by 50% by 2020 and scope 3 emissions in line with the reduction targets set for water, waste and travel emissions.



50%

LESS CO2 BY 2020

Our Progress

Overall, our total carbon emissions reduction is 10.7% (since 2005-6 baselines were established). This demonstrates good progress, but indicates that achieving our 35% reduction target set for 2015-16 will be a significant challenge.

Over the course of 2014-15, we've seen an increase in emissions from the previous year. We have investigated and explained these results in the 'Our Performance Explained' section.

A carbon emissions review was conducted in partnership with the design consultants, Building Design Partnership (BDP). The results of this show that we're unlikely to meet our 2015-16 emissions target. As part of the review, we developed an Energy Investment Plan. It demonstrates that, by investing in a range of transformative energy projects and continuing to build energy efficient and future ready buildings, we could meet our 2020-21 target of a 50% reduction in carbon emissions since the 2005-6 baseline year.



ELECTRIC VEHICLES HAVE REPLACED TWO OF OUR DIESEL FLEET, LEADING TO:



8%
FALL IN SCOPE 1
TRANSPORT EMISSIONS



5 TONNES
CARBON SAVING



Our Performance Explained

It's important to consider the big picture in terms of our carbon emissions.

Our carbon emissions reduction measures total scope 1 and 2 emissions. These consist of emissions from our use of energy, from the University's fleet vehicles and fugitive emissions.

The majority of our carbon emissions (98%) are generated from the energy we consume in buildings and consist of gas and electricity.

Our total carbon emission reduction since 2005 is 10.7%. Over 2014-15 our carbon emissions and energy consumption increased on the previous year. We have looked at the contributing factors, explained below:

- The University's estate has grown. Newly opened buildings include the Brooks academic building and accommodation housing 927 students at Birley Campus, The Union and the Platt Lane sports complex.

- The estates expansion has led to an increase in operational floor area of 10%. Our new buildings are energy efficient, but the improved building services such as heating and cooling, ventilation systems, IT facilities and intelligent building infrastructure also contribute to energy use.
- Despite having moved out of a number of buildings across our estate, the unoccupied buildings require a small amount of maintenance heating and power. This energy consumption represents approximately 2.3% of our total carbon emissions for 2014-15.
- We've seen an increase in students who live in Student Accommodation, with an extra 550 students in 2014-15. Residential buildings are typically more energy intensive than non-residential buildings, which has led to increased occupational energy demand.
- It was colder in 2014-15 than the previous year, which led to a 14.7% increase in Heating Degree Days (HDD).

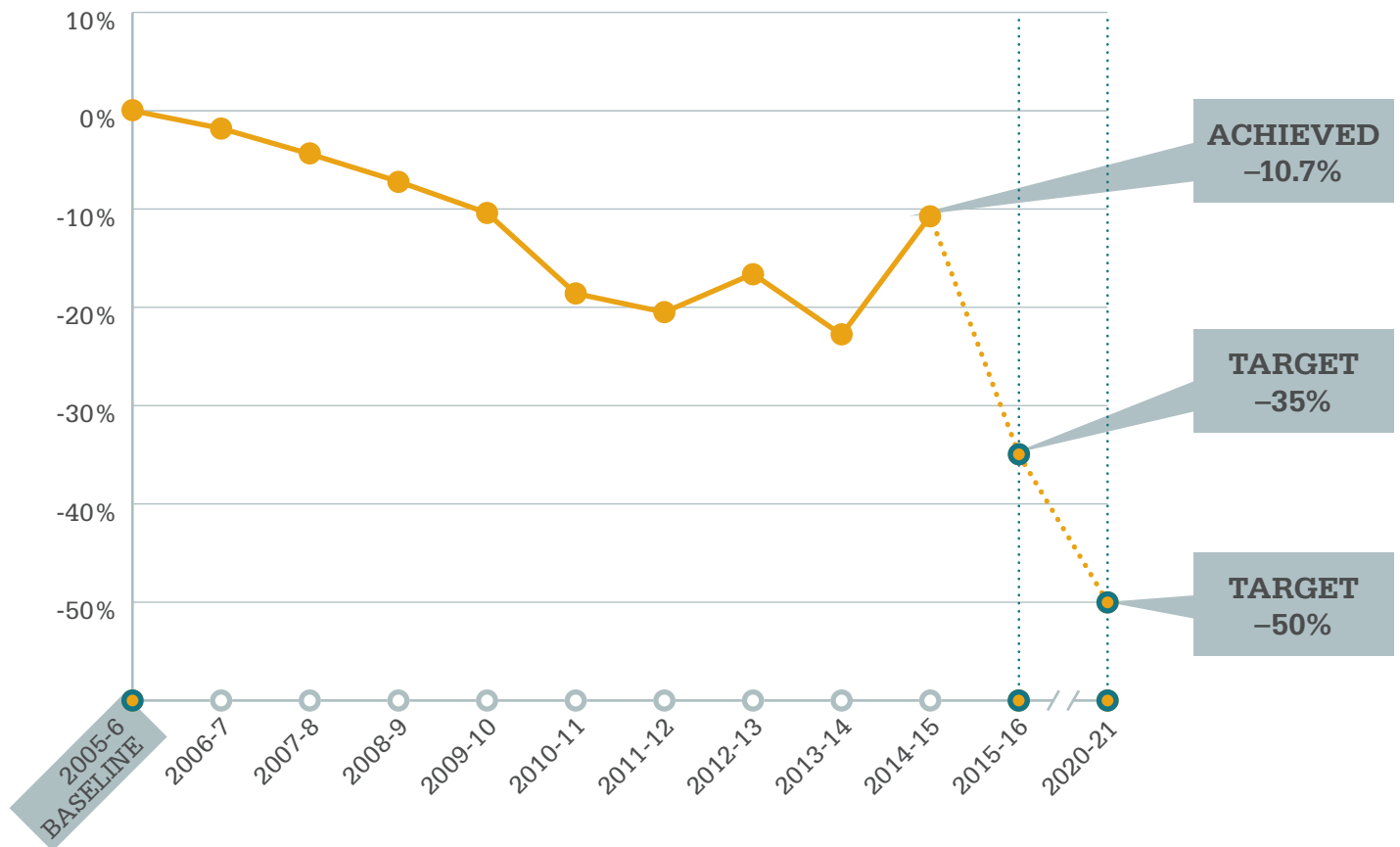
It's important to reflect upon the fact that a number of key estates and operational changes have occurred across the University. These factors have been considered in the Energy Investment Plan, which sets out what the University must do in order to achieve our ambitious 50% reduction in carbon emissions by 2020.

Turn over to see an overview of our emissions performance...

Emissions and Discharges – 2014-15 overview

Manchester Metropolitan University has set ambitious targets to reduce scope 1 and 2 carbon emissions by 50% by 2020

Carbon Emissions – Tracking our progress

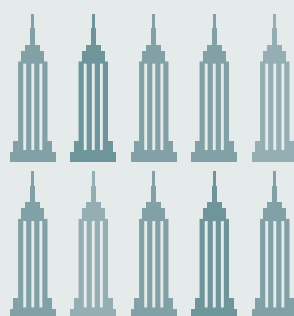


Emissions put in perspective

OUR TOTAL CARBON EMISSIONS ARE 19,799 TONNES CO₂e, WHICH IS EQUIVALENT TO:



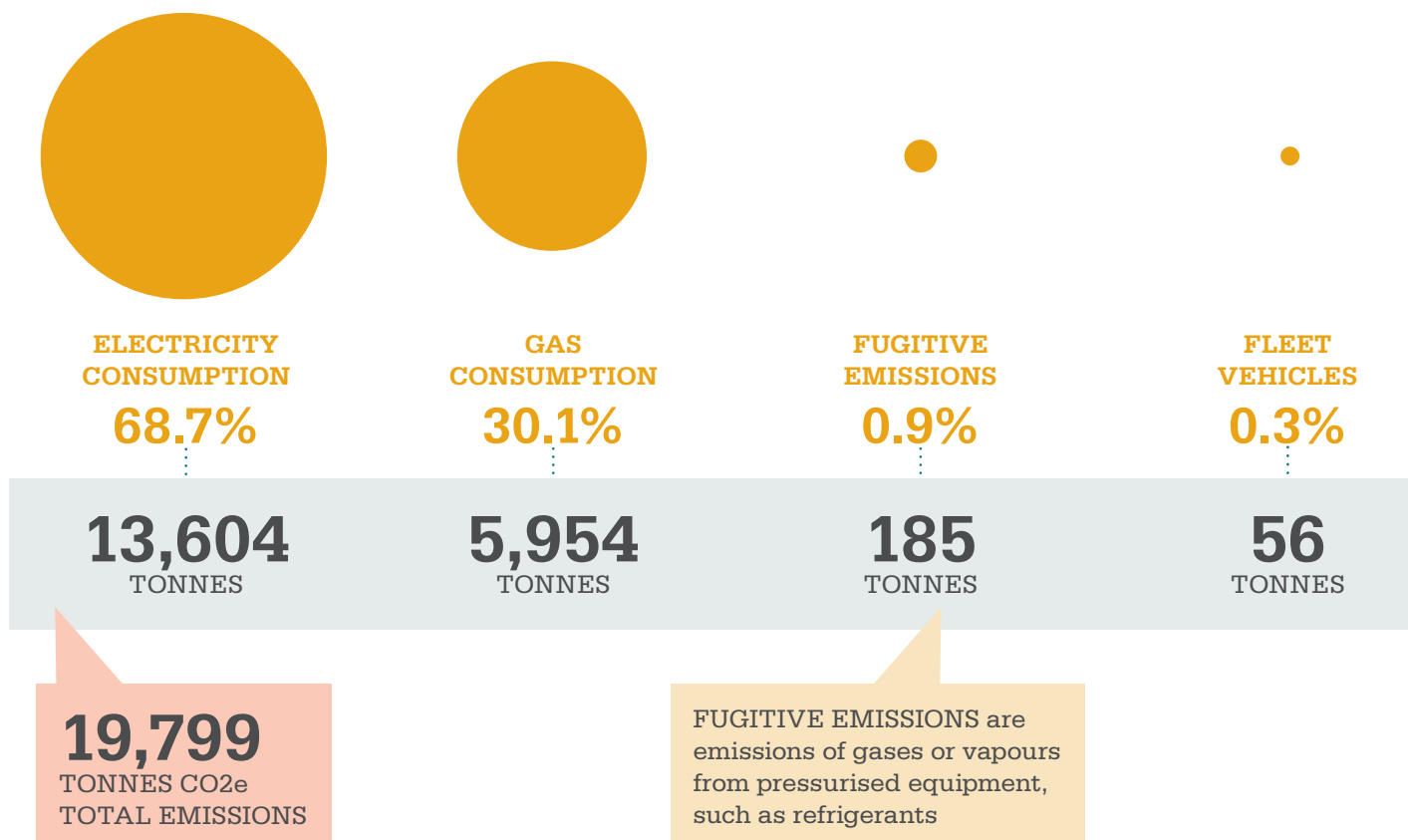
ENOUGH TO FILL 10 EMPIRE STATE BUILDINGS



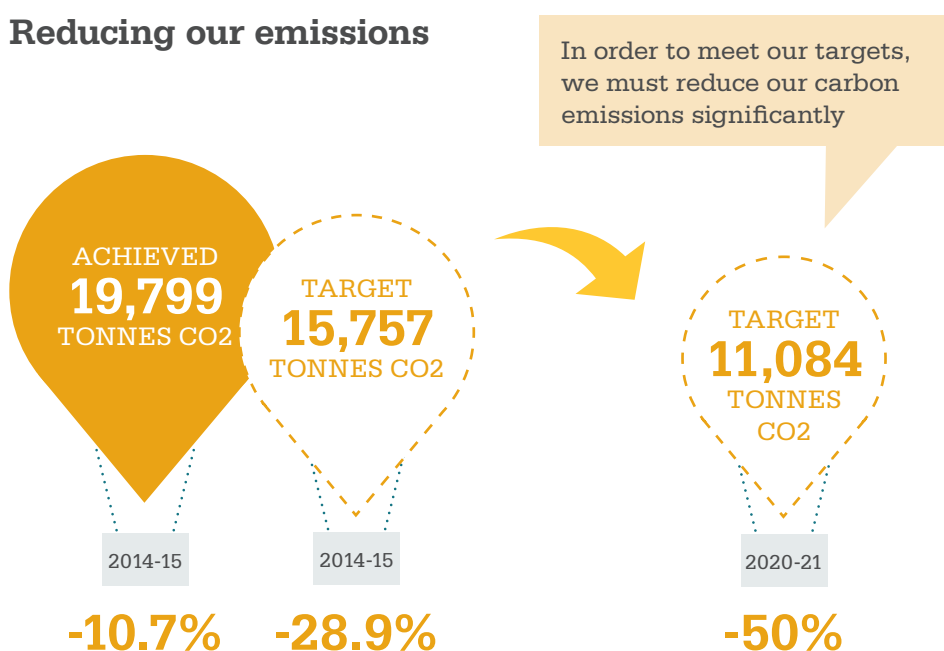
THE AVERAGE CARBON EMITTED PER STUDENT OR STAFF MEMBER OVER THE YEAR IS 640 KG



Where our carbon (CO₂e) emissions come from



Reducing our emissions

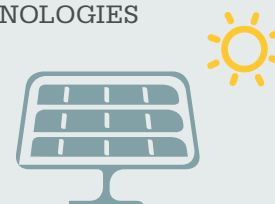


Investing in...

LOW-CARBON
ELECTRICITY GENERATION



AND RENEWABLE
TECHNOLOGIES



TO MEET OUR 2020 TARGET

Energy Management

Our Aims

We will reduce operational energy consumption in line with our carbon emission reduction targets.

50%



LESS ENERGY
CONSUMPTION
BY 2020

Our Progress

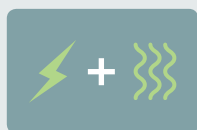
Overall, our gas consumption has decreased by 34.8%, and our electricity consumption has increased by 0.1% since the baselines were established in 2005-6. Our energy consumption has increased on the previous year, which is explained on page 19.

The emissions generated from our gas and electricity consumption account for an estimated 98% of total carbon emissions. In order to achieve our ambitious carbon emissions reduction target of 50% by 2020, it is imperative that our energy consumption reduces. With this in mind, we have invested in a range of projects to improve the energy efficiency of our operational estate, to generate low-carbon energy onsite, and to ensure that renewable energy sources provide power to our estate.

The electricity produced by our Combined Heat and Power unit (CHP) powers the IT servers for Birley Campus and the cooling and water treatment systems in the Energy Centre. It represents a lower carbon power source than imported grid electricity as the CHP uses gas as an input fuel, typically and less carbon intensive than grid electricity.

To reduce our energy consumption, we have continued to invest in refurbishment projects to improve the efficiency of our estate, and developed an Energy Investment Plan, which maps out how the University will realise its reduction targets.

A COMBINED HEAT AND POWER (CHP) UNIT IN THE ROBERT ANGUS SMITH ENERGY CENTRE PRODUCED:



1.5

million kWh of
electricity in 2014-15

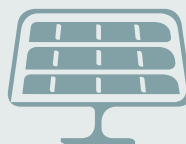
WHICH IS ENOUGH TO PROVIDE
ANNUAL ELECTRICITY FOR



491

households
in the UK

OUR PHOTOVOLTAIC ARRAY
GENERATED A TOTAL OF:



171,467

kWh of renewable energy
for use on our site

WHICH IS ENOUGH TO PROVIDE
ANNUAL ELECTRICITY FOR



55

households
in the UK

Investing in Energy Efficiency

Through our Salix energy fund we have invested in a range of energy efficiency projects over the past 12 months.

The Estates Team commissioned a student project to undertake photometric testing and develop a lighting design plan. These were used in the implementation of an LED lighting project at the Business School and Student Hub.

500 LED light fittings were installed, which have improved the lighting levels and delivered a 66% saving on electricity consumption.

The projects save:

30

TONNES CO₂e
ANNUALLY

460

TONNES CO₂e
OVER LIFESPAN
OF LUMINARIES

£102,000

OVER PROJECT
LIFESPAN

Booth Hall

900 LED light fittings, lighting and heating sensors were installed at Booth Hall Student Living, which has led to a 16% reduction in energy consumption when compared with 2008 levels.

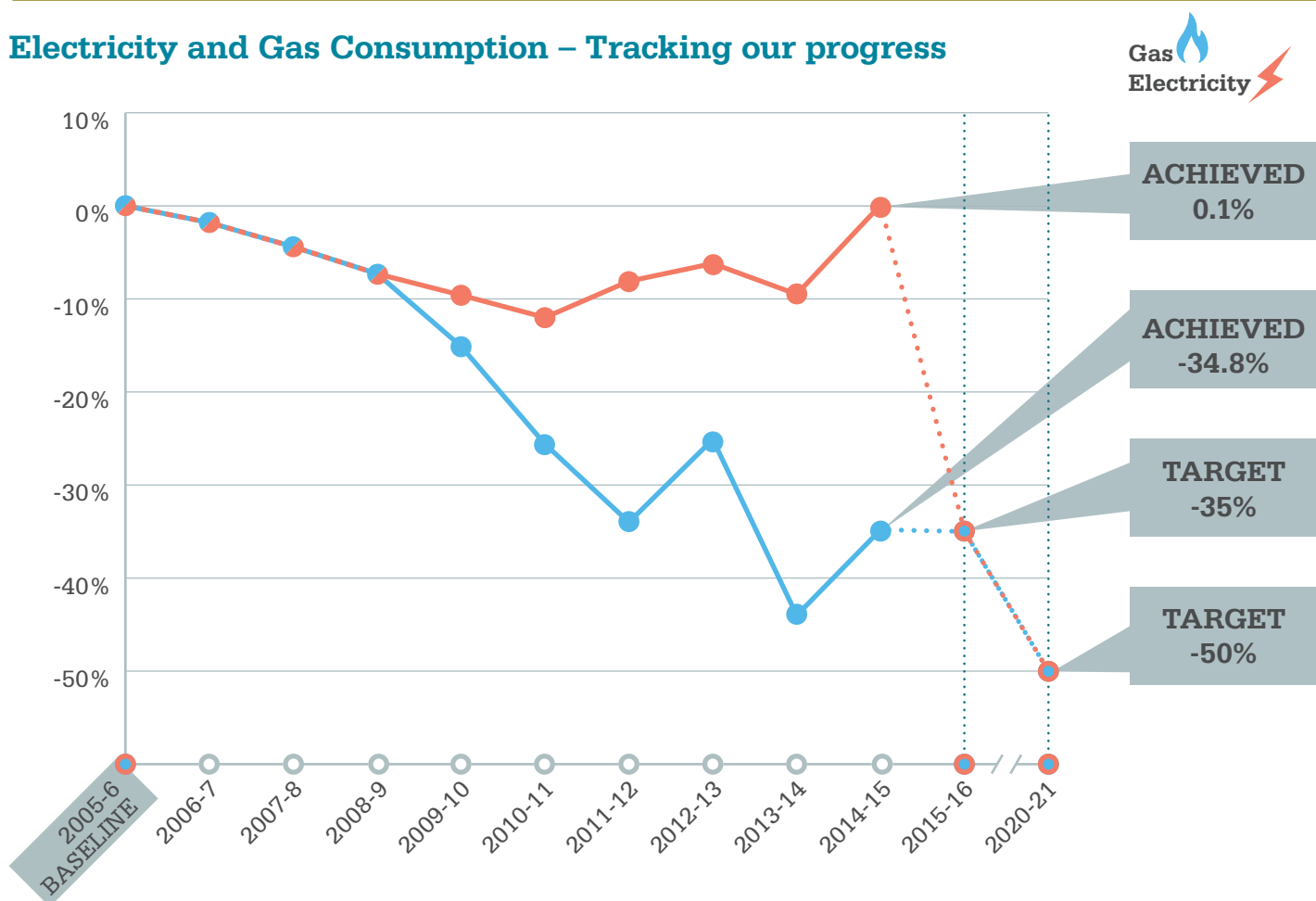
The project has improved the Display Energy Certificate (DEC) rating from 67 to 55 in the 'C' category rating – a better than average rating for Student Accommodation – and has achieved an annual saving of 160,000kWh electricity, equivalent to 85.3 tonnes of carbon.



Energy Management – 2014-15 overview

Manchester Metropolitan University has set ambitious targets to reduce energy consumption by 50% by 2020

Electricity and Gas Consumption – Tracking our progress



Consumption put into perspective

Large reductions in energy consumption are possible across the university sector

WE CURRENTLY CONSUME

Enough electricity to power every house in a town the size of Buxton¹



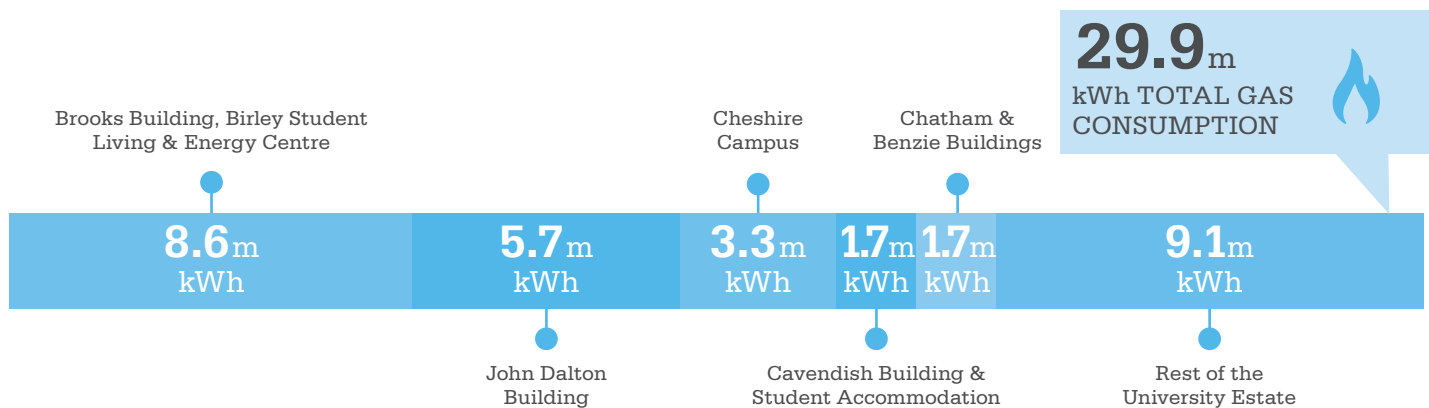
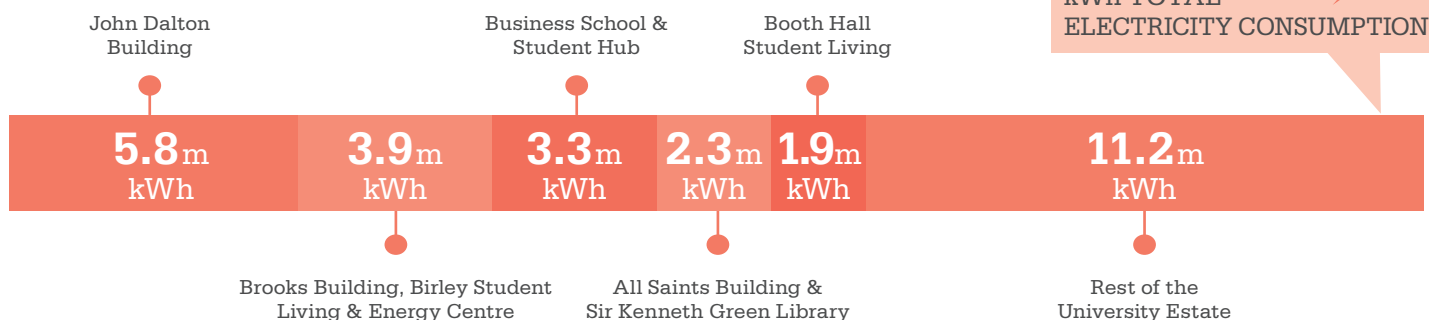
Enough gas to heat 2,392 average UK households per year²



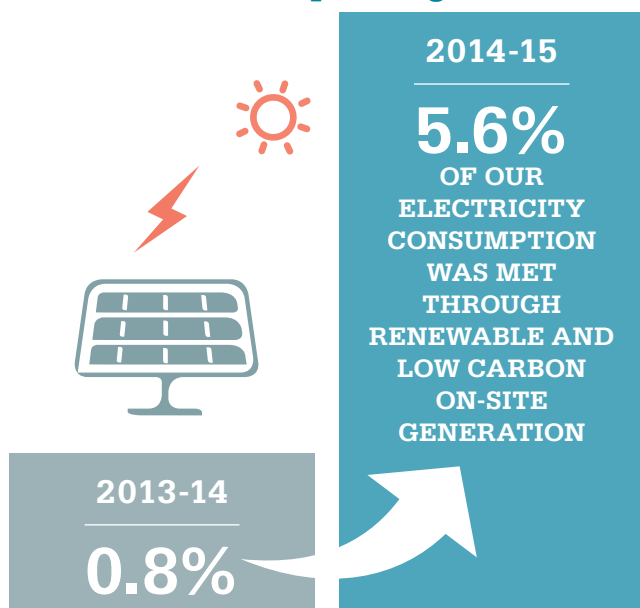
Reasons for energy consumption increase in 2014-15



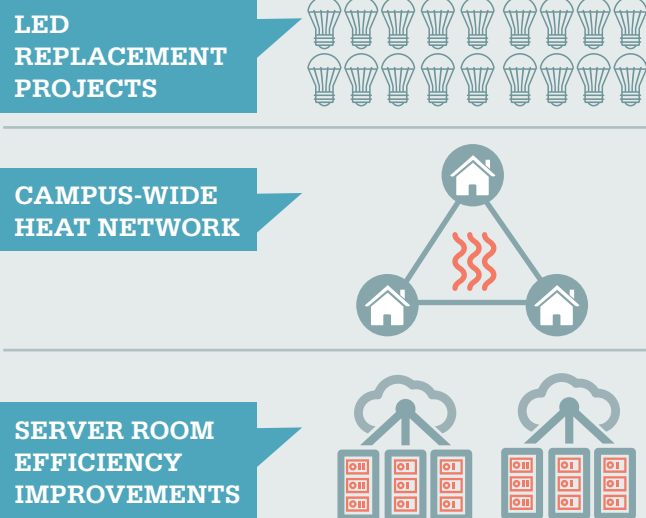
Consumption by building



Where are we improving?



Key projects to achieve our 2020 targets





Sustainable Buildings

Our Aims

We will embed sustainable design principles that minimise the environmental impact of the development and refurbishment the University estate.

Our Progress



We have met a number of targets including Display Energy Certificate (DEC) rating, BREEAM and Energy Performance Certificate rating for new buildings.

Overall, our average building efficiency rating has continued to improve. Our DEC rating has gone from a 'D' (rated 84.0) to a 'C' (rated 72.8).

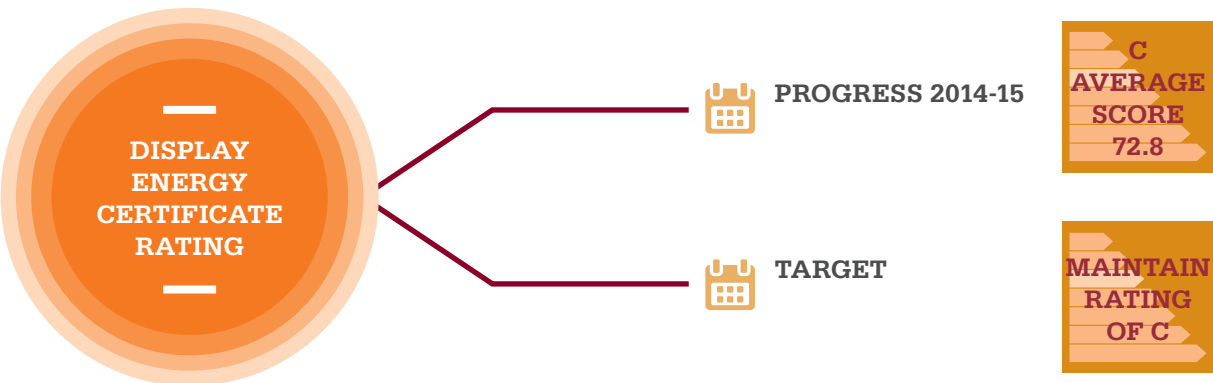
We have met our BREEAM target and achieved 'Excellent' rating at the post construction stages for the Brooks academic building and Robert Angus Smith Energy at Birley Campus. We have also achieved our Energy Performance Certificate target for new

buildings – Brooks academic building, Birley Student Living and The Union building have been rated 'B'.

In 2015, we developed a series of Environmental Design Principles to ensure that our environmental policies and targets are considered at the design and construction stages for new build and refurbishment projects.

The principles will monitor our compliance against project specific environmental targets. They will also support our target to achieve the BREEAM 'Excellent' rating for new builds and the use of the SKA framework for refurbishment projects.

Performance Targets





Case Study

Find it, Feel it

We have been using Birley Campus as an open educational resource for local schools and residents in Hulme.

Over the summer of 2015, we organised a series of visits for local primary school children to discover the wetland area, herb garden and different green areas on campus.

Working with academics from the Faculty of Education (Primary Education) and the Widening Participation team, we have developed outreach activities using the sustainability landscaping aspects at Birley Campus. We recruited 15 students to deliver the activities for 83 children from Rolls Crescent and St Wilfrid's primary schools in Hulme, providing invaluable experience of working with young people and of delivering environmental education activities.

The activities, which were designed to teach participants about the environment, meant that the children discovered how to measure trees, collect water samples and identify wetland creatures, identify plants and learn about lifecycles and food chains.

This outreach project demonstrated that the campus provides an incredible tool for engagement, creates positive perceptions amongst local communities, and contributes towards the University's Widening Participation programme.

The aptly named 'Find it, Feel it' programme is set to continue over the course of 2015-16, where it will be developed to incorporate newly completed areas such as the Community Orchard.



Sustainable and Ethical Procurement

Our Aims

We aim to invest in goods, services and works that consider whole-life costs and that give regard to economic, social, ethical and environmental impacts.

Our Progress

We have engaged our suppliers and internal colleagues to ensure that the goods and services we buy are based on the principles of sustainable and ethical procurement.

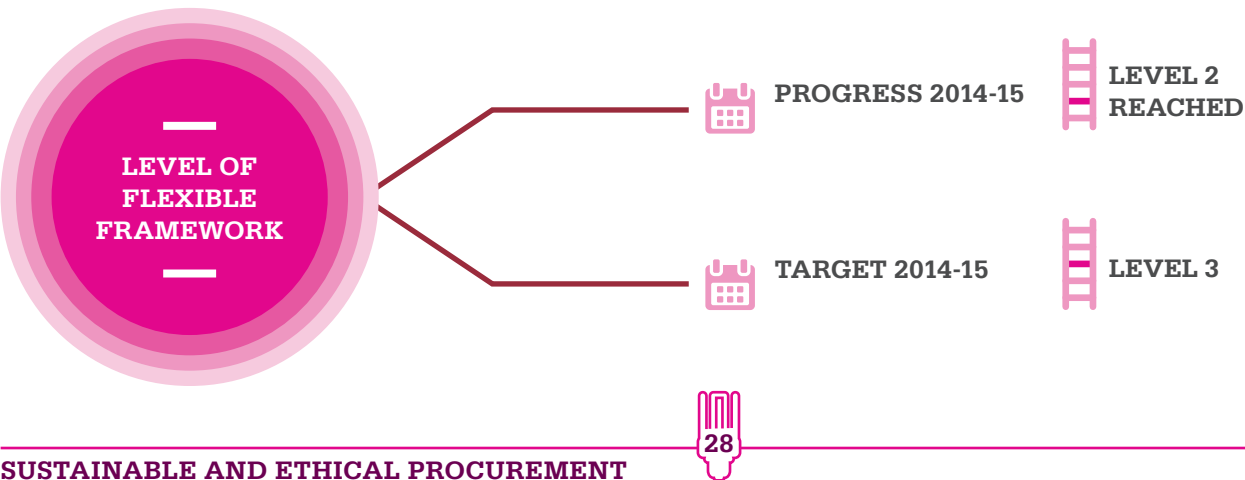
Although we have not reached our target to achieve level 3 in the 'Flexible Framework' by 2014-15, we are confident that we will achieve our goal in 2015-16 as a number of key criteria for level 3 have already been met.

Over the course of the year, the Procurement team has supported an Estates and Facilities consolidation project. As part of this, multiple contracts have been bundled together.

The team has also scoped a process to ensure that sustainable procurement criteria are part of tender specification and pre-qualification questionnaires.

The Procurement team has been key in delivering a range of projects that have significant environmental benefits. These include the design and construction of new buildings, the sourcing and rationalisation of a more energy efficient stock of multi-functional printing devices, a new University-wide waste contractor, and the procurement of waste compactors.

Performance Targets





Travel Plan Management

Our Aims

Minimise the impact of staff and student travel and encourage the use of efficient modes of transport that reduce environmental impact, congestion and air pollution.

Our Progress

38%
OF OUR VEHICLE
FLEET IS ELECTRIC



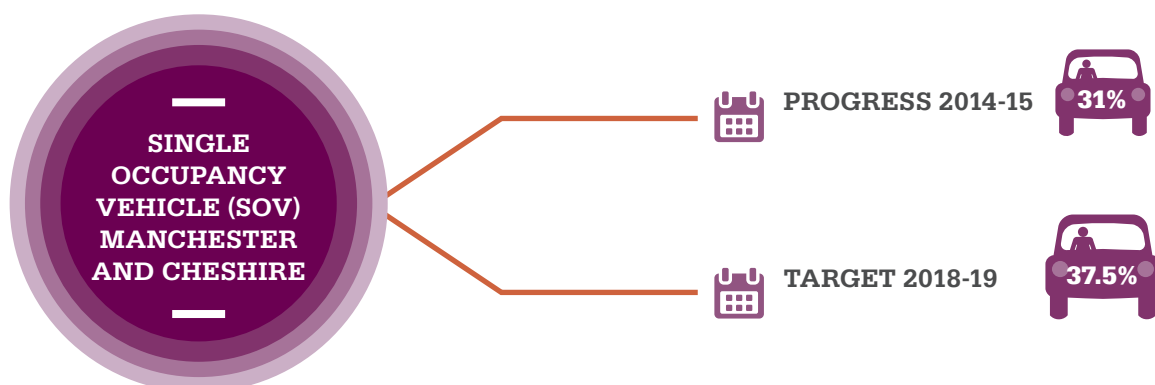
Strategic investments into low-carbon travel options, along with the delivery of events and schemes that encourage the uptake of sustainable travel options, have contributed to reduced fleet and business travel emissions. This has led to a continued reduction in Single Occupancy Vehicle (SOV) journeys.

Between our Manchester and Cheshire Campuses we have exceeded our SOV target, achieving 31% SOV against a target of 37.5% by 2018-19.

Personal Travel Planning Services, the delivery of an annual cycle event, University buy-in to 'walk to work', 'bike to work' and 'catch the bus' campaigns, investments into cycle training, repair stations and lockers, a new bus service to connect our campuses, as well as the launch of Halfords Cycle to Work scheme have had positive impacts on staff and student sustainable travel choices.

Alongside this, annual staff and student surveys continue to provide valuable information about the travel choices that our communities make.

Performance Targets





Going Electric

We've integrated electric vehicles (EV) into our operating fleet, which now represent 38% of the University's collective fleet.

Before buying seven electric and two hybrid vehicles, we invested in the infrastructure required to support the fleet. In total, 24 fast chargers and one rapid charger have been installed at our campuses. The Manchester charge points are available for public use, acting as a catalyst to encourage the wider uptake of EV ownership.

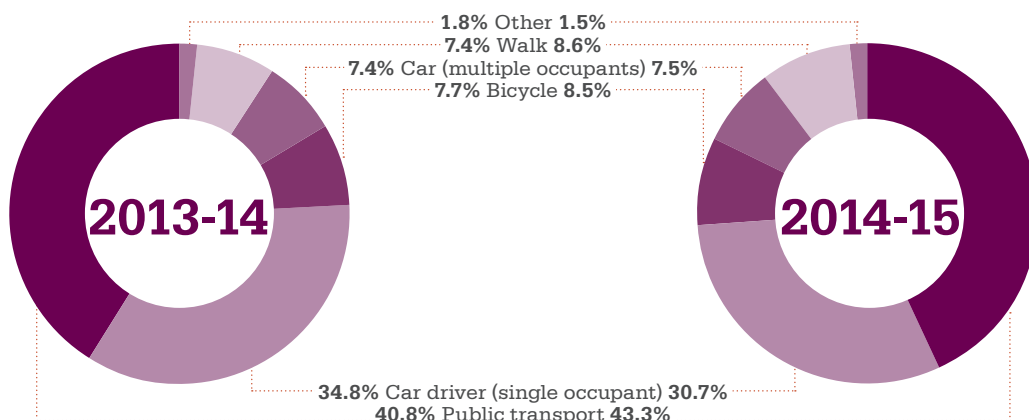
We recognise that encouraging buy-in to electric vehicles is fundamental to the success of the EV industry, and have delivered an EV roadshow event to enhance understanding and confidence in the technology.

We have also integrated two of our electric vehicles in a car-pool scheme, City Car Club. This has provided a lower carbon alternative for staff who would have otherwise used their non-EV vehicles for business travel, as well as normalising the use of electric vehicles.

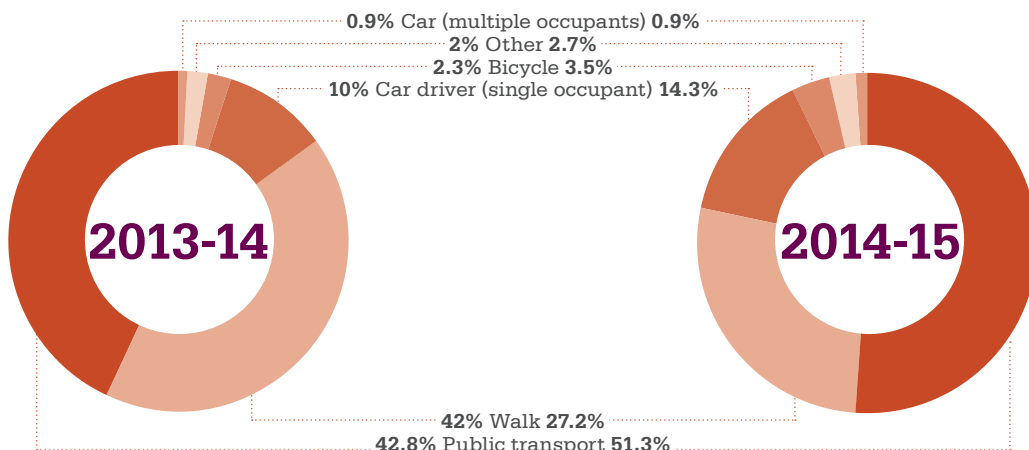
Investing in an electric fleet has led to an annual 8% reduction in scope 1 transport emissions, equivalent to 4.9 tonnes of CO₂.

Journeys travelled by mode of transport

STAFF COMMUTER
JOURNEYS (MANCHESTER
AND CHESHIRE STAFF)³



STUDENT MODE
OF TRANSPORT
TO UNIVERSITY
(MANCHESTER AND
CHESHIRE STUDENTS)⁴



Waste Management

Our Aims

We will ensure a robust approach is taken through the adoption of the Waste Hierarchy to prevent, reduce, reuse, recycle, and dispose of our waste.

42.4%

OF WASTE
IS REUSED
OR RECYCLED



Our Progress

Having reached our 40% reuse and recycling target a year earlier than expected, we've been working hard to implement the remainder of the second phase of our waste strategy. As a result, we increased our reuse and recycling rate to 42.4% in 2014-15.

We've been developing new systems and ways of working to enable the internal management of our wastes. We've invested in an electric utility van, towable bins for general wastes and on-site waste compactor facilities at all of our campuses. This enables us to transport and compress our wastes, provides financial savings as charges by waste contractors are removed, and reduces our environmental impact with less noise and pollution from reduced contractor transport.

To accompany existing facilities in the kitchen at Brooks academic building we introduced food recycling facilities. At the start of the year the new facilities were delivered in every kitchen at Birley Student Living – meaning that 800 students were able to recycle food waste. After trialling food recycling, we will expand the scheme so that every student living in Manchester Metropolitan University Student Accommodation, the Business School and every catering outlet will have access to food recycling facilities.

It's expected that new food recycling facilities will take us well on our way to achieve our ambitious reuse and recycling targets.





Case Study

Waste Strategy

The introduction of general waste compaction at our Manchester and Cheshire Campuses has been an integral part of our Waste Strategy. The new service provides transportation of general waste by using an electric vehicle to tow the bins to a central compactor.

After a successful trial of using a general waste compactor at Cheshire Campus in January 2014, we purchased two compactors soon after – one for Cheshire and one for Birley Campus.

Instead of our waste contractor removing our bins off-site every time they need to be emptied, our own electric vehicles tow the bins to the compactors where the general waste is compressed. Our waste contractor then collects a larger load of waste, but less frequently.

The new towable in-house service has had a number of benefits including a reduction in vehicle movements on campus; no missed collections as a result of an improved service; a reduction of contamination in the bins and improved resilience for large scale clear-outs.

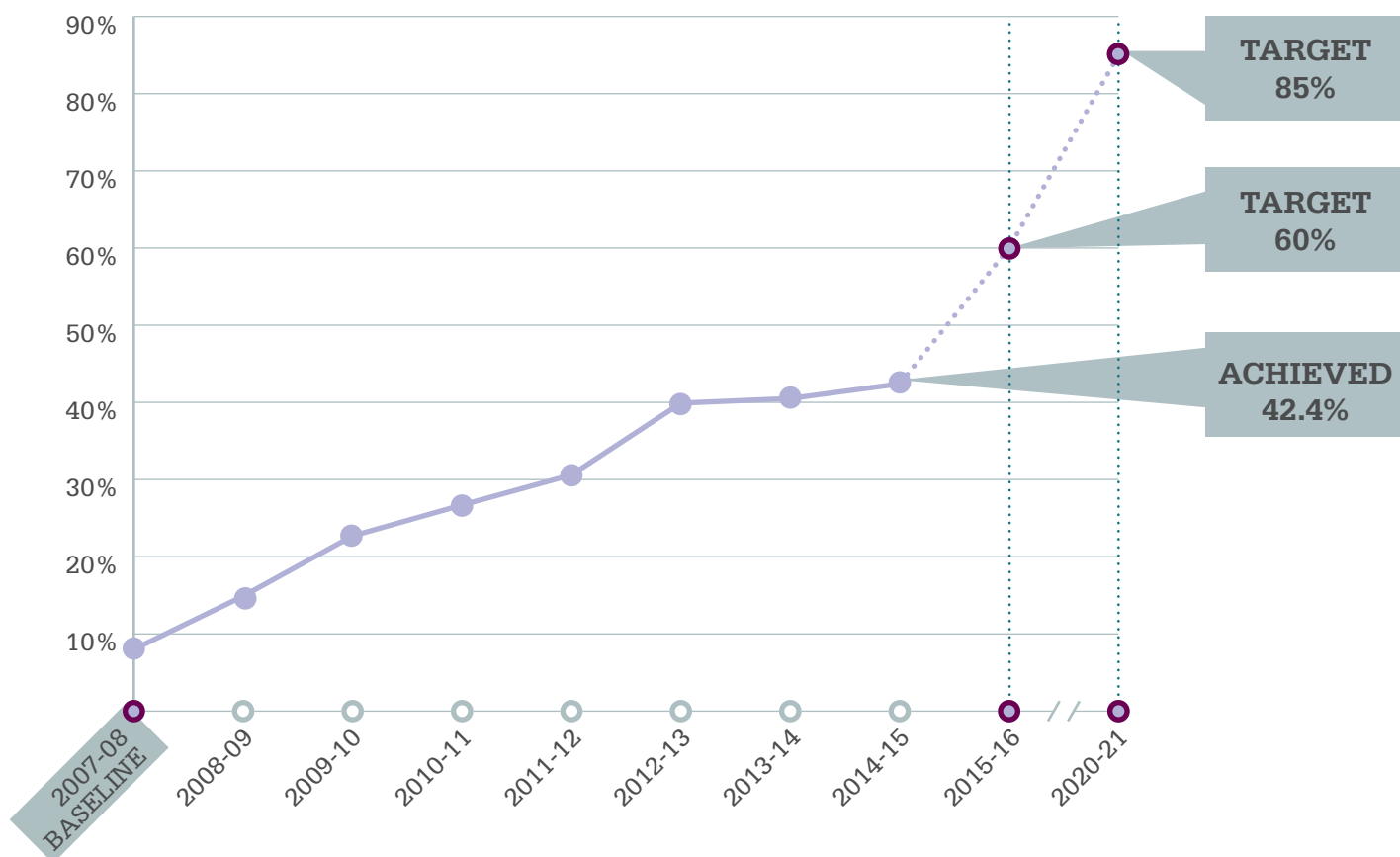
The results so far have been very positive – Birley Campus has an on-site recycling rate of 47% and the Cheshire academic buildings have a combined on-site recycling rate of 56%. As a consequence of reduced site collections, we are saving an average of £18,000 every year.

The success of the two compactors has encouraged us to purchase two additional general waste compactors for All Saints North, Manchester Campus, and Booth Hall Student Living, Cheshire Campus.

Waste Management – 2014-15 overview

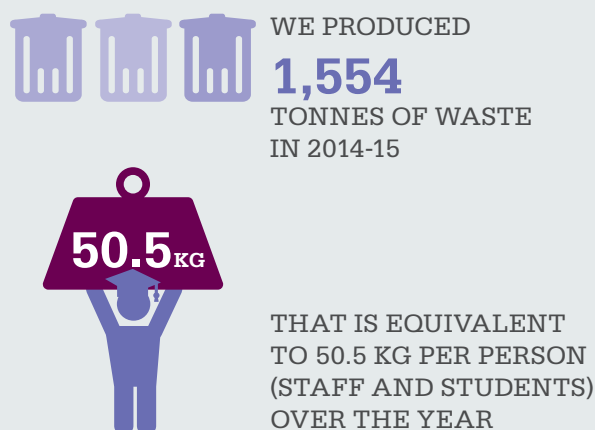
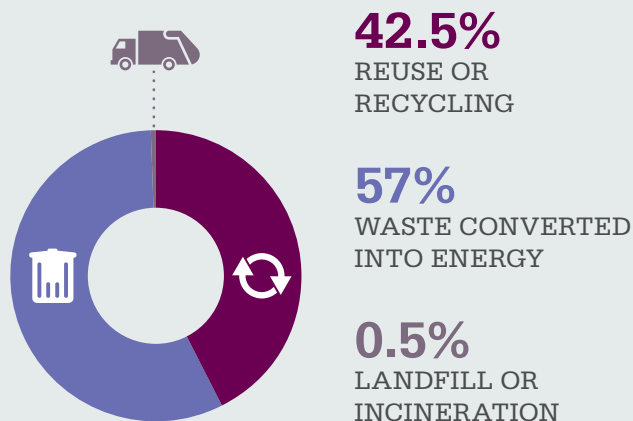
Manchester Metropolitan University has set ambitious targets to reuse and recycle 85% of the waste we generate by 2020-21

Reuse and recycling – Tracking our progress

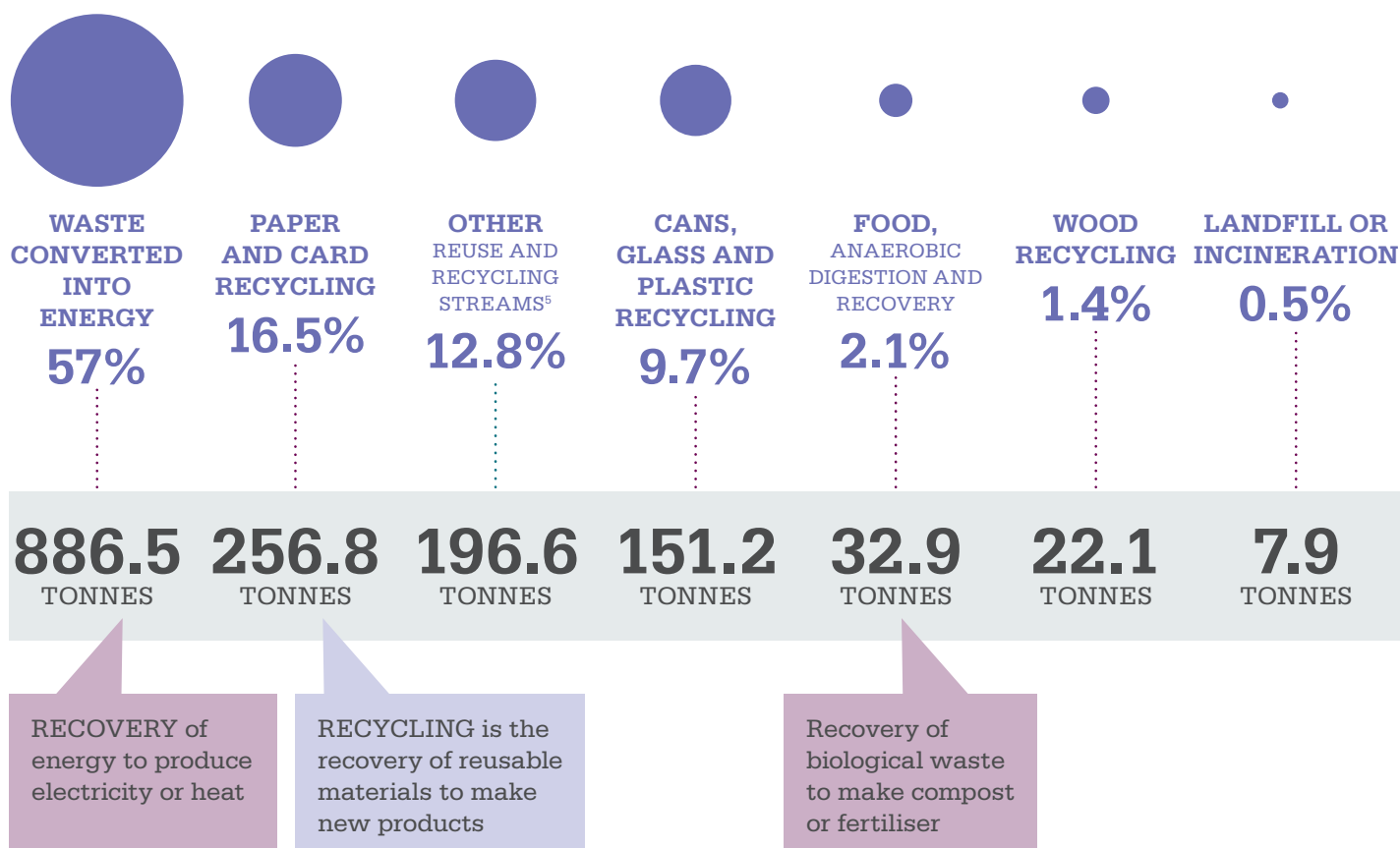


Waste and recycling put into perspective

RECYCLING AT A GLANCE



What happens to our waste



Our recycling and reuse rate takes into account all of our recycling streams (excluding building projects) such as office, food, WEEE, furniture items, hazardous wastes and donations.

To achieve our ambitious reuse and recycling target of 85% by 2020, we are...

INVESTING IN FOOD RECYCLING FACILITIES



COMPACTING OUR WASTES ON-SITE



ENCOURAGING POSITIVE RECYCLING BEHAVIOURS AMONGST STUDENTS LIVING IN UNIVERSITY ACCOMMODATION



Water Management

Our Aims

Reduce water consumption through practical water conservation measures and reduce cost through the increased use of alternative water sources.

Our Progress

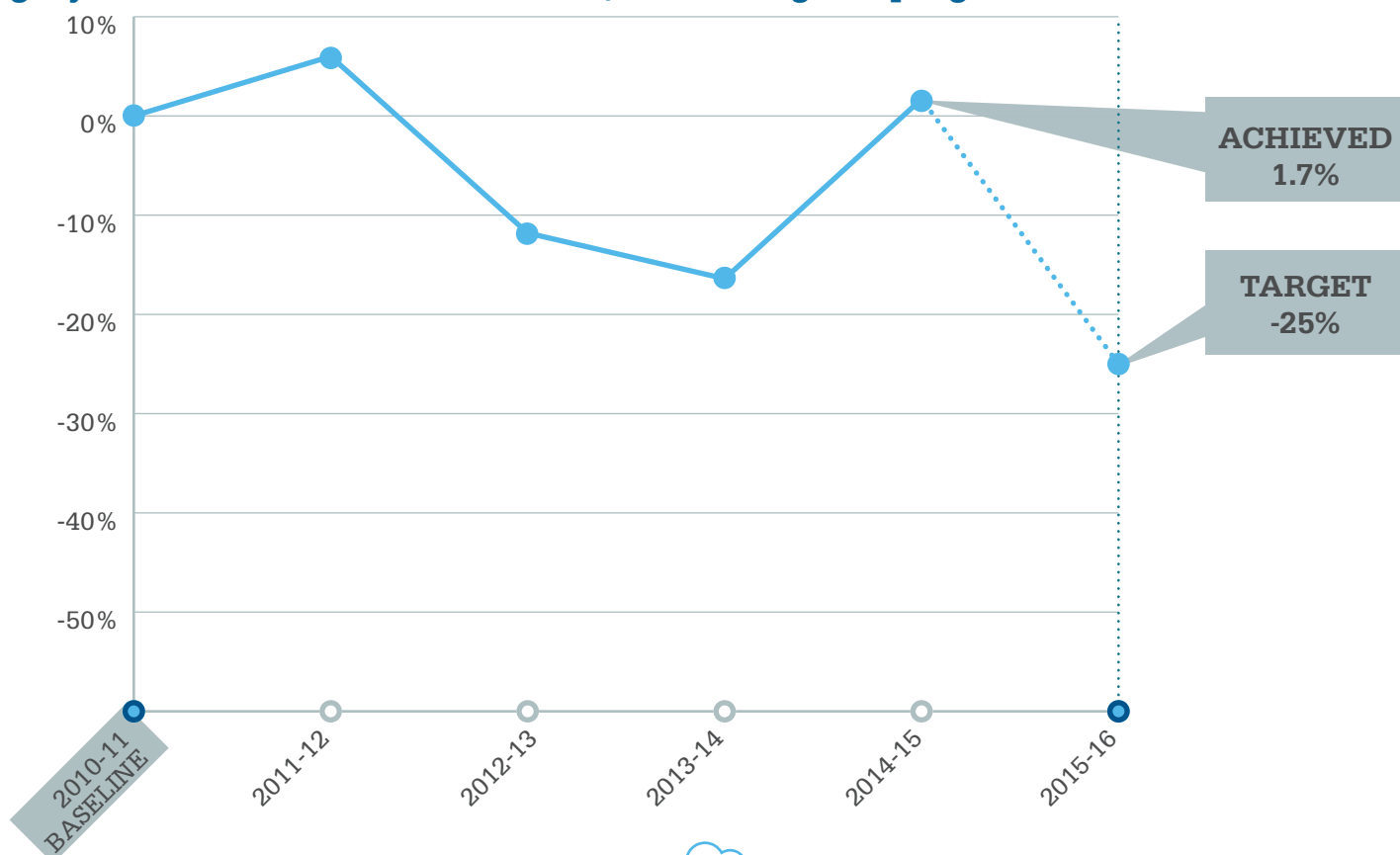
BOREHOLE
WATER PROVIDES
COOLING FOR BROOKS
ACADEMIC BUILDING



There are a range of water reuse and recycling systems at Birley Campus, including borehole water abstraction and treatment, greywater collection and reuse systems and rainwater harvesting – all of which are used to reduce the University's water consumption.

We recognise that Birley Campus is playing a major role in our journey towards becoming a Zero Water (from mains) University. We are using the campus to trial a range of new technologies, such as water treatment systems, before they become fully operational. We intend to draw on what we have learned so that we can embed new systems into the University's future capital developments.

Water Reduction (total water consumption including mains water, greywater and borehole water use) – Tracking our progress





RAINWATER HARVESTING AND STORAGE REDUCES OUR MAINS WATER CONSUMPTION



Our Performance Explained

Since the baseline year 2010-11, our total water consumption has increased by 1.7%. In order to explain this, we have looked at the contributing factors.

- An increase in students living in Student Accommodation has meant that water consumption for domestic uses has had a significant impact.
- We're continuing to test our systems to make sure that water drawn through the borehole can be used for potable purposes at Birley Campus.
- The borehole at our Business School and Student hub was not operational for a period, which meant that mains water was supplied to the building to flush toilets.

- The greywater systems at Birley Campus are not yet supplying Brooks academic building and are being tested and improved from lessons learned from the Birley Student Living.

MMU's water reduction target of 25% by 2015-16 was based on the assumption that the water systems at Birley Campus and at the Business School would be fully operational throughout 2014-15. However, this has not been the case and the 2015-16 target may not be achieved. We will review our water consumption targets as part of our Environmental Management review.

Biodiversity and Growing Systems

Our Aims

Protect and enhance biodiversity across the University’s estate and promote its benefits for students, staff, visitors and the local community.

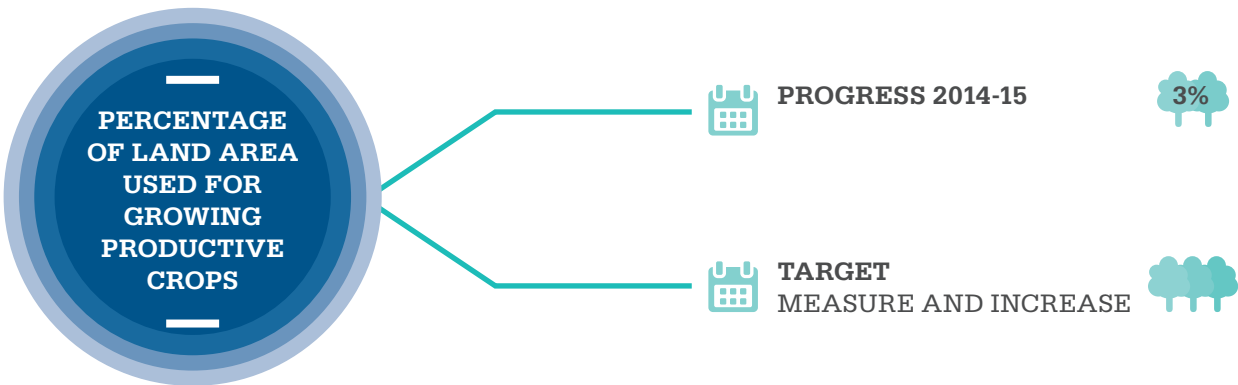
Our Progress

We’ve carried out a range of activities and analyses, working through the formal and informal curriculum to identify, protect and enhance habitats and species, as well as inform our Biodiversity Action Plan.

Students, staff and community took part in a BioBlitz at our Cheshire Campus. A secondary data project and a second habitat survey audit have also taken place – all contributing towards the protection and enhancement of species and habitats on campus.

Manchester has seen intense industrial activity since the 19th Century and this has left a legacy of potentially contaminated land. We’re measuring contamination through an MSc dissertation project, which will inform our strategy for growing edible crops.

Performance Targets



BioBlitz

In early June, a community of academics and students teamed up with professionals from The Environment Partnership (TEP) to assess biodiversity value through a series of BioBlitzes.

The BioBlitzers walked, waded, trapped, counted, and mapped parts of Manchester Met's estate – including Cheshire Campus and Ryebank – to contribute to the baseline of species and habitats through a series of intensive biological surveys.

Alongside an interesting and wide ranging mix of habitats, we recorded species of plants, lichens, birds, butterflies, and moths, as well as tracks and signs of bats and mammals. We even found evidence of kingfishers, water voles and an active badger den was found in the Cheshire Campus.

Students who participated did so through MMU Futures. Through this they gained new skills in the field of ecological surveying, sampling and habitat identification, as well as the experience of working alongside ecological professionals from a dynamic job industry.

The BioBlitz went beyond biological assessment, allowing the opportunity for academics, students and ecological consultants to share ideas, collaborate and compare experiences about local biodiversity, as well as acting as a tool to inform biodiversity management plans at the University.

Key Performance Indicators

Sustainability Area	Key Performance Indicator
 Environmental Management Systems and Legislative Compliance	Level of EcoCampus Environmental Management System
 Sustainability Engagement	Percentage of students who perceive the University to have an 'eco-friendly attitude'
 Sustainability Research, Innovation and Knowledge Exchange	Percentage of staff carrying out sustainability research at the institution
 Learning for a Sustainable Future	Responsible Futures Accreditation Mark achieved
 Emissions and Discharges to the Environment	Scope 1 & 2 carbon emissions reduction
 Energy Management	Electricity consumption
	Gas consumption
 Sustainable Buildings	Display Energy Certificate rating of existing estate
 Sustainable and Ethical Procurement	Level of Flexible Framework
 Travel Plan Management	Single Occupancy Vehicle (SOV)
 Waste and Resource Management	Reuse and Recycling (excluding capital construction and refurbishment projects)
 Water Management	Water consumption
 Biodiversity and Growing Systems	Land area used for biodiversity enhancement and growing food

Target and date achieved by (if applicable)	Baseline year	Progress 2014-15	On-track
EcoCampus Platinum (ISO14001) achieved by 2015-16	N/A	EcoCampus Gold achieved	● ● ●
Maintain score of over 80%	2013-14	83%	● ● ●
Maintain and increase sustainability research	N/A	Not achieved	● ●
Test and achieve the NUS Responsible Futures Accreditation Mark by 2015-16	2013-14	Responsible Futures Accreditation achieved	● ● ●
35% less by 2015-16	2005-06	-10.7%	●
50% less by 2020-2021			● ●
35% less by 2015-16	2005-06	Electricity consumption +0.1%	●
50% less by 2020-21			● ●
35% less by 2015-16	2005-06	Gas consumption -34.8%	● ● ●
50% less by 2020-21			● ● ●
Maintain average DEC rating of University buildings of above 'C'	2007-08	Achieved average 'C' rating (72.8)	● ● ●
Level 3 Flexible Framework reached by 2014-15	2011-12	Level 2	● ●
37.5% by 2018-19	N/A	31%	● ● ●
60% by 2015-16	2007-08	42.2%	● ●
85% by 2020-2021			● ●
Down 25% by 2015-16	2010-11	-3.2%	●
Measure and increase	2013-14	3%	● ● ●



Glossary

¹ Source: Office for National Statistics; Population and Household Estimates for the United Kingdom, March 2011 & Ofgem 2015 average values; Domestic Energy Consumption

² Source: Ofgem 2015 average values; Domestic Energy Consumption

³ Source: Manchester Metropolitan University Staff Travel Survey, 2014, 2015

⁴ Source: Manchester Metropolitan University student online enrolment survey 2013-14 and 2014-15

⁵ e.g. WEEE, furniture, donations

Definitions

CO2e – carbon dioxide equivalent is a standard unit for measuring carbon footprints

BREEAM – Building Research Establishment Environmental Assessment Methodology

SKA rating – Environmental assessment method, benchmark and standard for non-domestic refurbishment projects

OUR PARTNERS



MANCHESTER:
A CERTAIN FUTURE



Let's make a sustainable planet



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