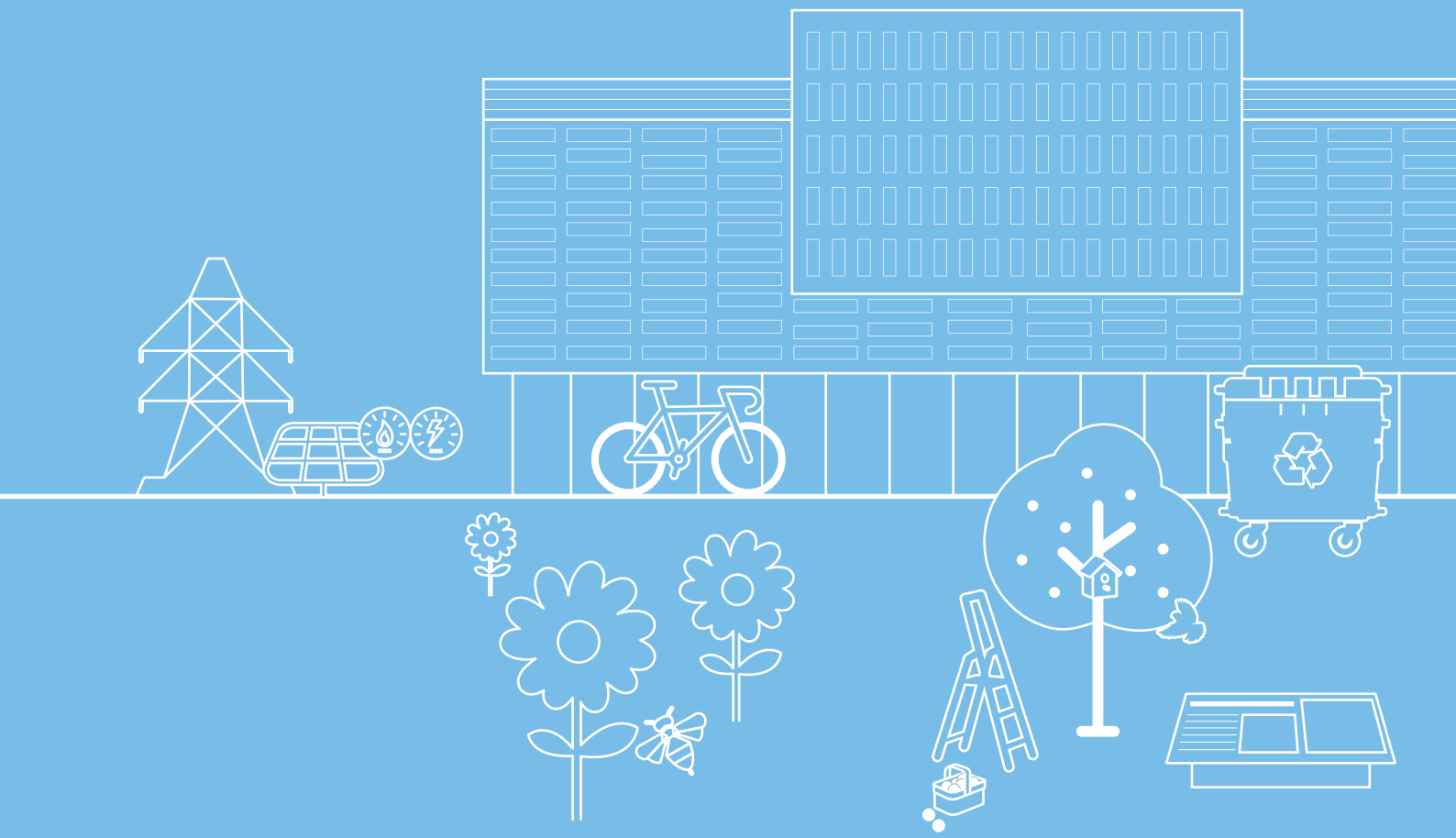
Manchester Metropolitan University

Environmental Sustainability Statement 2015-16



Let's make a **sustainable planet**

Manchester Metropolitan University is one of the largest campus-based universities in the UK with over 36,000 students and 3,500 staff.

As a higher education provider, we have a major role to play in helping students and staff to develop the skills they need to respond to present and future sustainable development challenges.

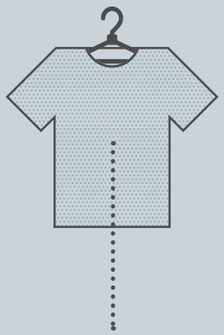
We offer over 1,000 courses and qualifications to a diverse student body and pride ourselves on training the future talent of the region, with 70% of our graduates staying and working in the North West.

Making an Impact

Awards and Achievements 2015-16

60.6%
of students believe they are gaining the skills and knowledge to help understand key global sustainability issues

86.0%
of students think Manchester Met is an environmentally sustainable university



121.4 tonnes
of unwanted items donated to charities

Finalists
in the Green Gown 2015 Awards for our student move-out campaign 'Give it don't bin it'

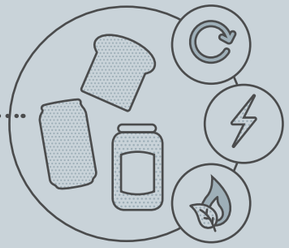
46.3%
of waste reused and recycled on-site

5.9%
of our total waste is now segregated as food recycle

6.0%
of our electricity consumption met through renewable and low carbon on-site generation

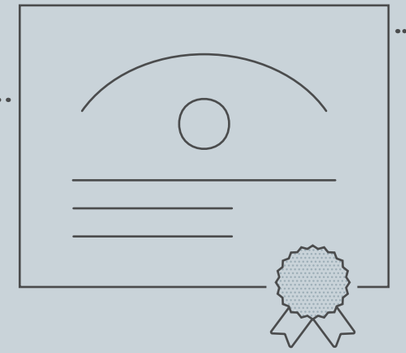
Silver Level
Food Made Good

99.9%
of waste is diverted from landfill (excluding building projects)



EcoCampus Platinum
accreditation achieved

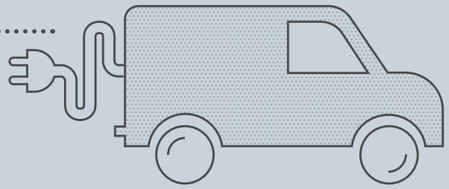
First UK university
to achieve the International Environmental Management System ISO14001:2015



Level 3
Flexible Framework achieved for sustainable procurement

Top 3
university for four consecutive years in the People and Planet University League

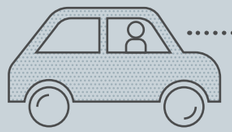
Go Ultra Low
status awarded for our implementation of electric and low emissions vehicles into the university's core vehicle fleet



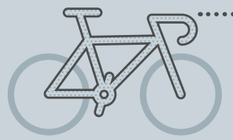
48.0%
of vehicle fleet is electric or low emission

23.5%
reduction in scope 1 and 2 carbon emissions since the 2005-6 baseline year

415 tonnes
of carbon emission savings through energy efficiency projects



25.9%
Manchester based single occupancy vehicle commuting journeys



51
bicycles purchased through the Cycle to Work scheme

Sustainable Development at Manchester Met

We are a leading, award winning university for sustainability and must ensure that our business activities reflect this.

Understanding our potential contribution in the future to the 'improvement or deterioration of economic, environmental and social conditions, developments and trends at the local, regional and global levels'[1] is imperative, and this report sets out to provide an overview of our progress towards implementing our Environmental Sustainability Strategy 2016-2020.

We work to protect the environment, ensure that the university is able to mitigate against, adapt to, and be part of the solution to climate change, and contribute towards sustainable development through our teaching, learning and research, and our estate and operations.

The university cannot be considered sustainable unless our communities possess the understanding, skills and motivation to act on current and future challenges. We understand that Education for Sustainable Development (ESD) is key to improving our environmental performance and limiting our own – and wider – impacts in generations to come.

Embedding ESD into our formal and informal teaching and research means that our students and staff are equipped with the understanding and skills to work, live and study in a way that 'safeguards environmental, social and economic wellbeing'.[2] 60.6% of our students now recognise that they are gaining the skills and knowledge to help them understand key global sustainability issues.

We manage and control our environmental sustainability impact though an Environmental Management System accredited to ISO14001:2015 standard, which provides a framework for establishing and improving our environmental performance.

Our operations, and the development of our buildings and infrastructure, significantly influence our impact on the environment, and on society. Creating a university campus that is energy and operationally efficient, and working as part of the community, will be key to achieving our ambitious targets and improving our performance.

1 (Global Reporting Initiative, G4, Sustainability Reporting Guidelines, 2015)

2 (QAA and HEA, 2014)

Statement from the Vice Chancellor

I am delighted to introduce you to our Environmental Sustainability Statement 2015-16.

Over the course of the year, the development of a new Manchester Metropolitan University Strategy has enabled us to articulate our vision and ambition to discover and disseminate knowledge, and make higher education accessible and beneficial to all those with the passion and ability to succeed. In recognition of the importance we place on sustainability, it has been formalised as one of our five strategic themes within the University Strategy. We are focussed on how we sustain ourselves as an institution in the long term and demonstrate responsible environmental practice as a result.

We work closely with the city, and are a key partner in shaping and contributing to Manchester's Climate Change Strategy. We recognise and understand our influence and our potential to contribute towards a more sustainable city. A number of Manchester Metropolitan research centres form collaborative partnerships across the university, the city, the region and the globe to drive innovation, test ideas, address future sustainable development challenges and affect social and environmental change.

We are a key partner in the Carbon Literacy Project, bringing to fruition Manchester's transformative ambition to create 'low carbon culture change'. The delivery of carbon literacy learning enables our graduates and staff to acquire skills and knowledge for climate-positive decision-making and behaviour.

It is our responsibility to engage and expose our staff and students to sustainable development issues through formal and informal education, research and our campus environment and culture.

As we strive to reduce our adverse impacts, and build our contribution towards the improvement and development of economic, environmental, and social conditions, it is imperative that our graduates, many of whom will take up leadership positions in the future, have an understanding of the relevance of sustainable development to academic discipline and future career paths. This will set them apart; this will ensure that Manchester Metropolitan is widening its capabilities to make a positive impact. This will embed a commitment to sustainable development that is rooted in the experiences they have had here.

The breadth and depth of sustainability activity undertaken at Manchester Metropolitan, and our performance to date, makes me proud to be Vice Chancellor at a university that has built its reputation as a leading sustainable university, in Manchester, the UK and globally.

My sincere thanks to the students, colleagues and university partners that contribute towards sustainable development at the university and beyond.

Vice Chancellor, Professor Malcolm Press

Introduction

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. Our progress towards implementing the strategy and our performance are outlined in this report.

In 2016, we became the first university to achieve the new and more challenging ISO14001:2015 environmental management standard, retained our top three position in the People and Planet University League, and were awarded 'Go Ultra Low Status' for our implementation of electric and low emissions vehicles into our core vehicle fleet. In addition, we were finalists in the EAUC Green Gown Awards 2016 for Reporting, as well as Community Innovation, in 2015.

We have set ambitious targets for the future and hope to achieve a 50% reduction in carbon emissions and to reuse and recycle 60% of our waste by 2020-21. We are also aiming to reduce our total water consumption by 25% and achieve a 25% Manchester single car driver commuter journey (SOV) rate.

To date, we have reduced our carbon emissions by 23.5% since the 2005-6 baseline year and are now reusing and recycling 46.3% of our waste. We have also achieved a 25.9% SOV rate (Manchester Campus) and have improved the energy efficiency ratings of our buildings, amongst many other achievements.

We are extremely proud of our successes, and are committed to continuous improvement towards embedding sustainability into university business.

Thank you to everyone for your support.

Director of Services and Chair of the Environmental Strategy Board, Paul Kingsmore

Learning for a Sustainable Future

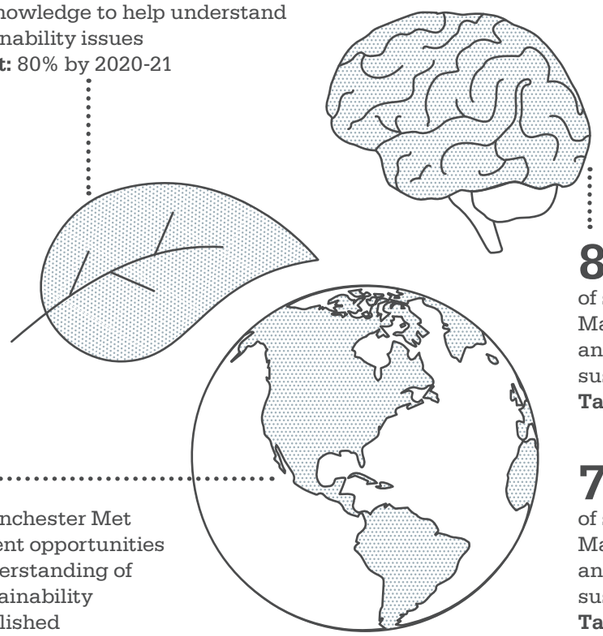
Learning for a Sustainable Future

Our Aim

We will support staff and students in gaining the knowledge, skills and attributes needed for sustainable development.

Performance

60.6%
of students are gaining skills and knowledge to help understand sustainability issues
Target: 80% by 2020-21



86.0%
of students think that Manchester Met is an environmentally sustainable university
Target: Maintain 80%

39.7%
of staff feel that Manchester Met provides development opportunities which increase understanding of environmental sustainability
Target: To be established

75.8%
of staff think that Manchester Met is an environmentally sustainable university
Target: Maintain 80%

About Learning for a Sustainable Future

Our contribution towards sustainable development issues rests on graduates and staff who possess the 'knowledge and understanding, skills and attributes needed to work and live in a way that safeguards environmental, social and economic wellbeing[1]'.

Learning for a Sustainable Future recognises that skills, knowledge and attributes for sustainable development are gained through the whole 'university experience' for staff and students; that is, through the formal and informal curriculum, access to professional development, through the university's estate and operations, research and knowledge exchange, and organisational culture and leadership.

Following our strategic review, we now take a more holistic approach to Education for Sustainable Development (ESD), combining the above mentioned activities into one strategic area, 'Learning for a Sustainable Future.'

Progress

We continue to engage students and staff to raise awareness and enhance understanding and skills for sustainable development.

Understanding perceptions

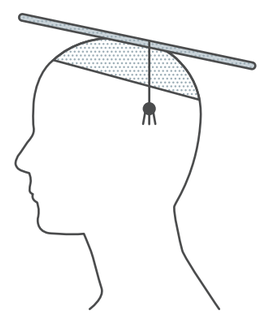
We now measure a range of indicators that provide valuable insight into student and staff perception of Manchester Met as an environmentally sustainable university, as well as the extent to which our students and staff feel supported in being able to live and work in sustainable ways.

We have gauged student levels of interest and measured whether students perceive that they are gaining the skills and knowledge to understand key global sustainability issues. In total, 60.6% of students told us they were gaining the necessary skills whilst at university, and 86.0% perceive the university to be environmentally sustainable.

An annual staff travel and sustainability survey was reviewed and developed to capture and understand staff perceptions, motivations and the extent to which they feel supported to work in environmentally sustainable ways.

75.8% of staff believe that Manchester Met is an environmentally sustainable university; however, only 39.7% feel that the university has provided professional development opportunities that increase their awareness and understanding of environmental sustainability. This information will help to shape our plans, specifically around staff education and development.

Developing skills for sustainable development at Manchester Met



1 (QAA & HEA, 2014)

Carbon Literacy

We are playing a major role in contributing towards Manchester's ambition of creating low-carbon culture change to enable climate-positive decision-making.

The Carbon Literacy Project is all about offering everyone who lives, works or studies in the city and the wider area a day's worth of carbon literacy learning: climate change, carbon footprints, how you can do your bit, and why it is relevant to you and your audience.

Manchester Met is playing a big part in providing carbon literacy learning to our students. We have developed a global first student facilitator model for Carbon Literacy and our students are the first trainers to be certified by the Carbon Literacy Project.

Our students have undergone an intensive four-week trainer programme to equip them with the skills and knowledge to deliver Carbon Literacy confidently.

The model has enabled our certified student trainers to deliver the course to their peers as a paid opportunity whilst at university. Over the year, 66 students participated in the project and of those, another nine have been recruited to undergo the facilitator training, expanding our capacity to deliver to larger numbers of students.

Our Carbon Literacy Programme has also gained international interest. In 2017, the programme leader and two student trainers will travel to Toulouse to deliver the programme to 60 students at ENSEEIHT University. This will be the first time that carbon literacy training will be delivered outside of the UK.

Ideas into Action

Last year, upon launching our Ideas into Action programme, we asked our staff and students how we could be a more sustainable university. They responded with many creative ideas, from urban farming to green exercise. Since then, we have been working with colleagues to develop four ideas into real life projects that will make a big impact on campus.

Ideas into Action – greenhouse restoration

This collaborative student and staff project evolved from an idea to develop an unused greenhouse on campus.

Alongside students and staff, we have progressed the idea and are supporting the restoration of the greenhouse to be utilised by the student Sustainability & Growth Society.

Responsible Futures

Manchester Met received the NUS Responsible Futures accreditation back in 2015 and we continue to work in partnership with the Students' Union to embed environmental sustainability and social responsibility into the curriculum. A workshop was developed and delivered to the elected Students' Union officers, introducing the United Nations Development Programme's sustainable development goals, and undertaking a series of activities to identify how the Union's work can, and does, contribute to these goals.

ESD in the curriculum

We have created more Academic Professional Development opportunities to further our ability as a university to address sustainable development through our teaching and learning activities. A Teaching and Learning Essentials (TALE) workshop has been developed for staff directly involved in supporting student learning. The workshop presents an opportunity for staff to engage in ESD and explores practical and interactive methods to support student engagement through ESD.

A Scholarship for Teaching and Learning (SOTL) fund has seen the uptake of three funded projects relating to ESD, and has demonstrated that many of our academics are interested in understanding more about the skills required for ESD.

Insect sushi

As part of the Manchester Science Festival and the European City of Science 2016, our student-led social enterprise, MetMUnch, organised a 'Future of Food' public engagement event at the Museum of Science and Industry (MOSI) to raise awareness of insects as a sustainable alternative to meat-based diets.

The MetMUnch students spoke about the future of food, and how switching to insect alternatives may be a real (and tasty) possibility in the future. Over 1,000 visitors were persuaded to try some insect sushi and discovered more about the sustainability of meat-based diets and other diets including flexitarianism, vegetarianism and veganism.

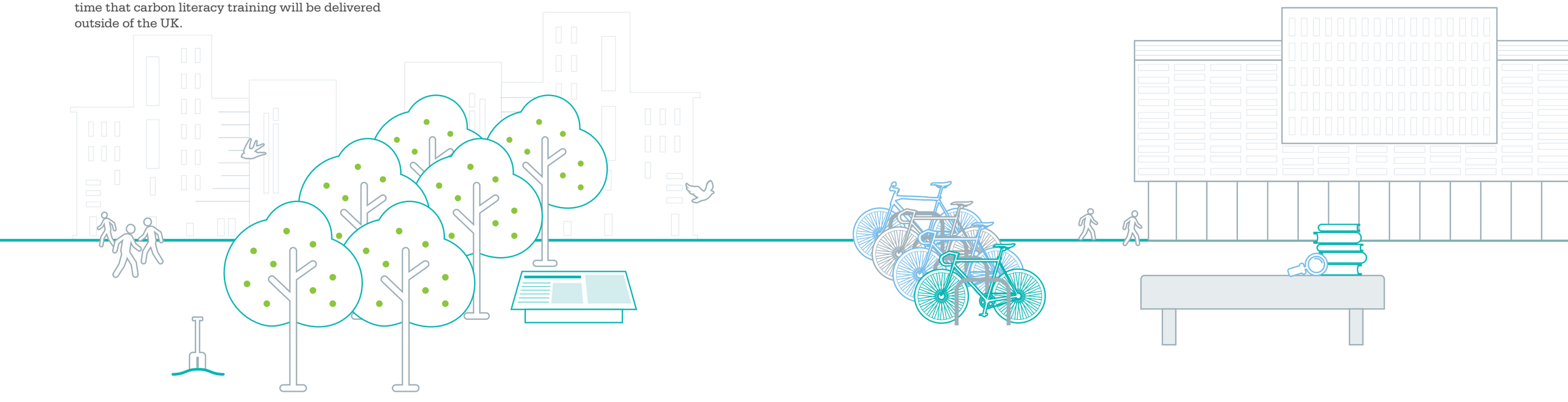
Fruitful Futures

The Living in Future Ecologies (LiFE) group at Manchester School of Art undertook a collaborative research project to create the book 'Fruitful Futures: Imaging Pomona'.

The book was inspired by Pomona Island, a brownfield area of land adjoining Manchester, Salford and Trafford.

The book presents poetic and practical sci-fi visions for designing a culture for the 'art of fruitful living' across various disciplines.

It presents creative responses from MA Professional Platform students working alongside researchers and alumni from across the university, as well as European partners and local activists. The book was launched at the New Generation: Design for Living Symposium, and the critical reflections for the Future City, in response to Pomona Island, became part of a walk entitled 'Pomona Encounters' for Manchester European City of Science in 2016.



Estates and Operations

Biodiversity and Growing Systems

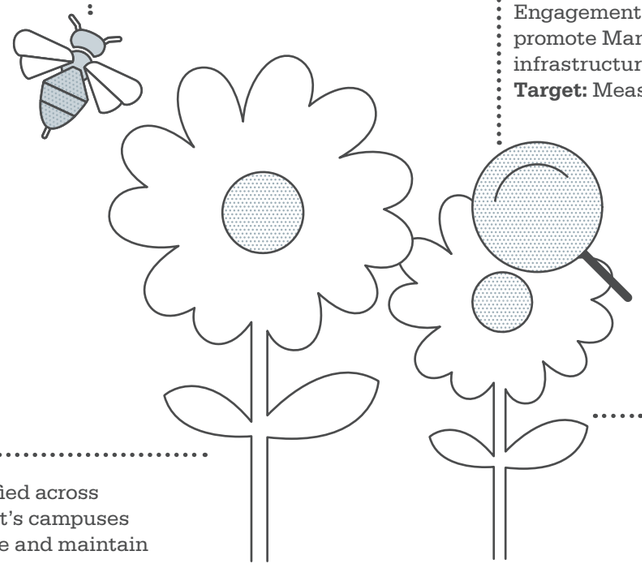
Our Aim

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

Performance

279
Species identified across Manchester Met's campuses
Target: Measure and maintain

22
Engagement opportunities to promote Manchester Met's green infrastructure delivered
Target: Measure and increase



13
Habitats identified across Manchester Met's campuses
Target: Measure and maintain

72
Physical connections between habitats identified
Target: Measure and maintain

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 on campus.

A community of academics and students teamed up with professionals from The Environment Partnership (TEP) to assess the university's biodiversity value by undertaking a 'Bioblitz' of Manchester and Cheshire Campuses. This expanded our biodiversity monitoring programme from 2014-15 and the results of the surveys identified a slight increase in the number of species and habitats.

Across the year, students, staff and local residents have helped maintain and develop the biodiversity of our estate by participating in a range of workshops and volunteering experiences. Projects including seasonal orchard maintenance workshops, planting to encourage wildlife, the development of two community woodland areas, edible planting workshops in our John Dalton Garden, and the construction of an insect hotel to provide a habitat for insects, invertebrates and bees were undertaken across the year.

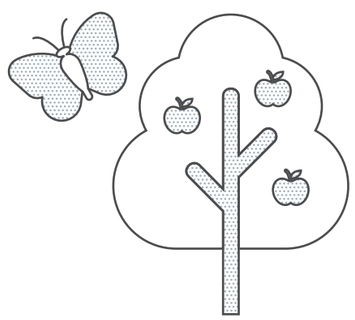
Community orchard

In autumn 2015, we planted a community orchard at our Birley Campus. 70 volunteers including students, staff, local residents and local primary school children planted 21 varieties of apple, plum, pear and cherry trees.

Alongside the planting event, a host of outreach activities helped to raise awareness of the new orchard and promote future opportunities to participate in workshops.

An apple themed poetry and creative writing session was also delivered to local primary school children and MetMUnch created a 'Real Apple' store, which offered tastings and information about the apple varieties planted.

Enhancing biodiversity on campus



Ideas into Action – encouraging bats

We're working on a project to provide homes for existing wildlife on campus.

Working with the university's Biodiversity Management Group, we have located areas to install bat and owl boxes on our Cheshire Campus.

As part of the project we have worked in partnership with South Lancashire Bat Group, engaging staff and students in a guest seminar and 'bat walk' around our Birley Campus to learn how to identify bats and find out more about their habits and behaviours.

We now want to investigate live streaming opportunities using wireless cameras to gain a greater insight.

Community woodland

We have created two community woodland areas at Birley Campus in partnership with Hulme Community Garden Centre, volunteers and the local community.

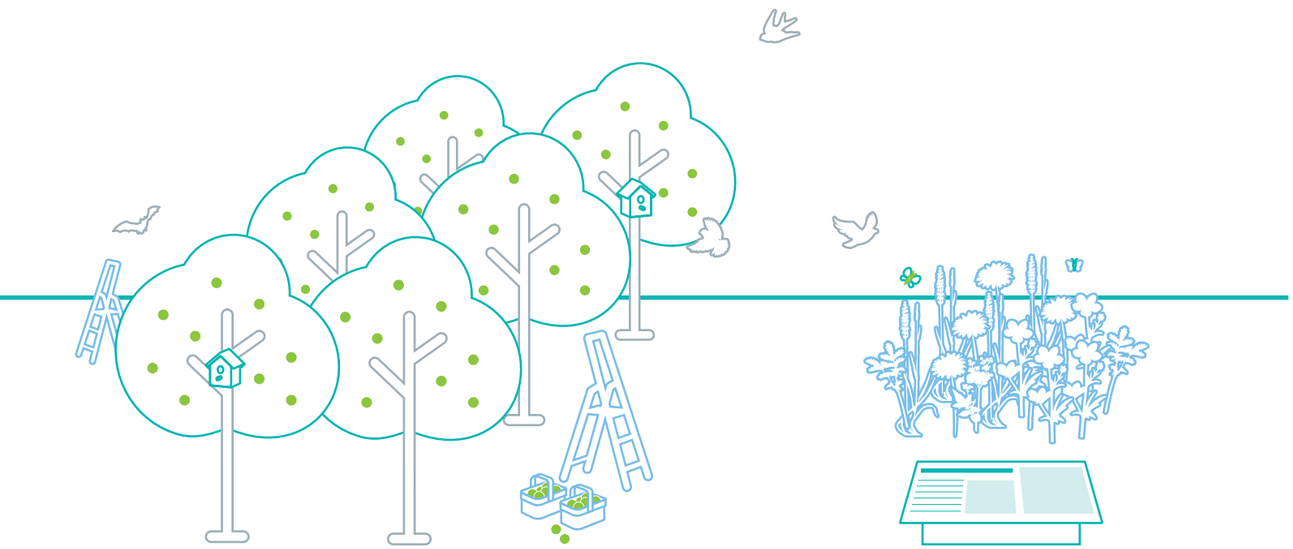
The woodlands were developed by introducing perennial wild flowers including foxglove, dog violet, wood betony and columbine.

The areas are managed to ensure they are as close to a natural woodland habitat as possible whilst also recognising the need to encourage human engagement.

Visitors will be encouraged to explore the woodland and plants, many of which will provide wild foods and medicines that can be foraged through the seasons.

These areas are now some of the most biodiverse on Manchester Met's estate.

Our future plans include understanding how the woodland areas can be used as an educational resource.



Carbon and Energy Management

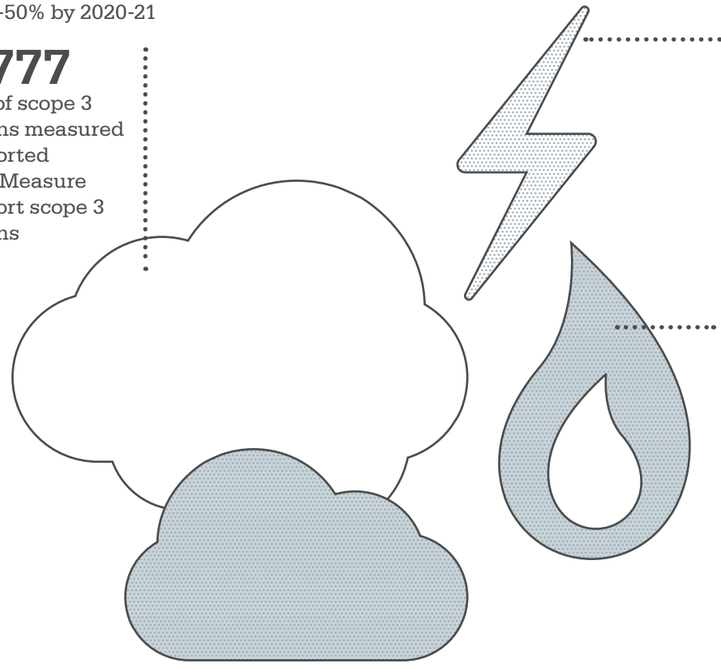
Our Aim

We have set ambitious targets to reduce operational energy consumption in line with our energy targets and reduce carbon emissions in line with our carbon targets.

Performance

23.5%
reduction in scope 1 and 2 carbon emissions
Target: -50% by 2020-21

51,777
tonnes of scope 3 emissions measured and reported
Target: Measure and report scope 3 emissions



7.2%
reduction in electricity consumption
Target: -50% by 2020-21

35.8%
reduction in gas consumption
Target: -50% by 2020-21

'C' rating
achieved for Display Energy Certificate (DEC) of buildings
Target: Average 'C' rating achieved

Progress

The emissions generated from our gas and electricity consumption account for an estimated 98% of our total carbon emissions. In order to achieve our carbon emissions target, it is imperative that our energy consumption reduces in line with the targets set out in the Energy Investment Plan (EIP).

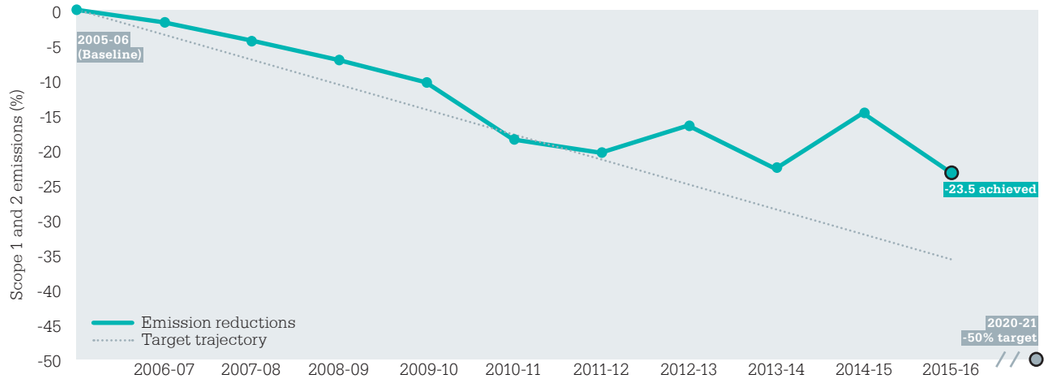
Carbon emissions

To date, our total carbon emissions reduction is -23.5% since the baseline year 2005-6, which demonstrates significant progress towards achieving our -50% reduction target set for 2020.

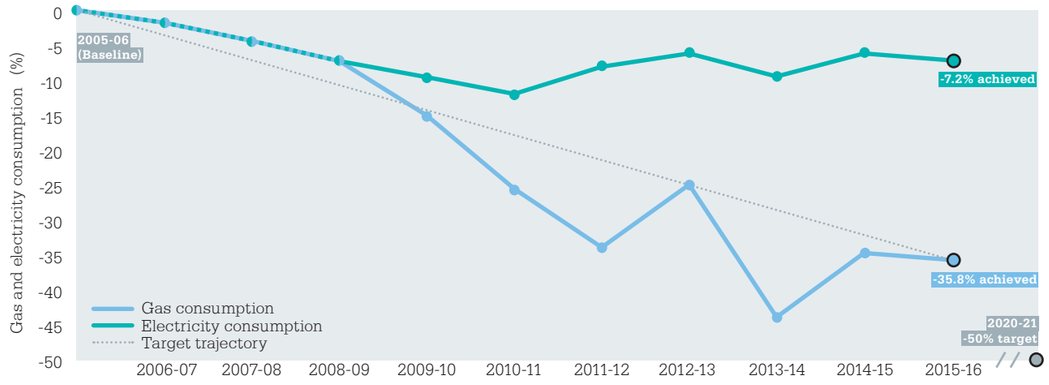
Energy

Although this is positive progress, this falls short of where our emissions reductions need to be in order to meet our ambitious target. Our gas consumption has decreased by -35.8% and our electricity consumption by -7.2% since the 2005-6 baseline year. The trends in energy reduction reflect our changing campus landscape to a newer, energy efficient estate that typically consumes less gas and more electricity, and through the implementation of a number of energy efficiency measures across the university estate.

Carbon Emissions – tracking our progress (scope 1 and 2 emissions)



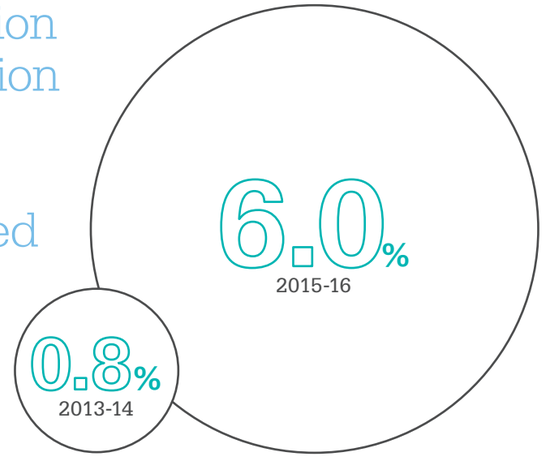
Gas and electricity consumption



Renewable and low-carbon energy

We now fulfil more of our energy needs through our on-site generation of renewable and low-carbon energy. The installation of a Combined Heat and Power (CHP) plant in the Robert Angus Smith Energy Centre has resulted in a significant increase in our generation of low-carbon electricity. Further CHP plants are integral to the university's energy strategy going forward where a number of CHPs will be implemented in our future capital developments.

Since 2013, our proportion of electricity consumption met through renewable and low-carbon on-site generation has increased



Where our emissions come from

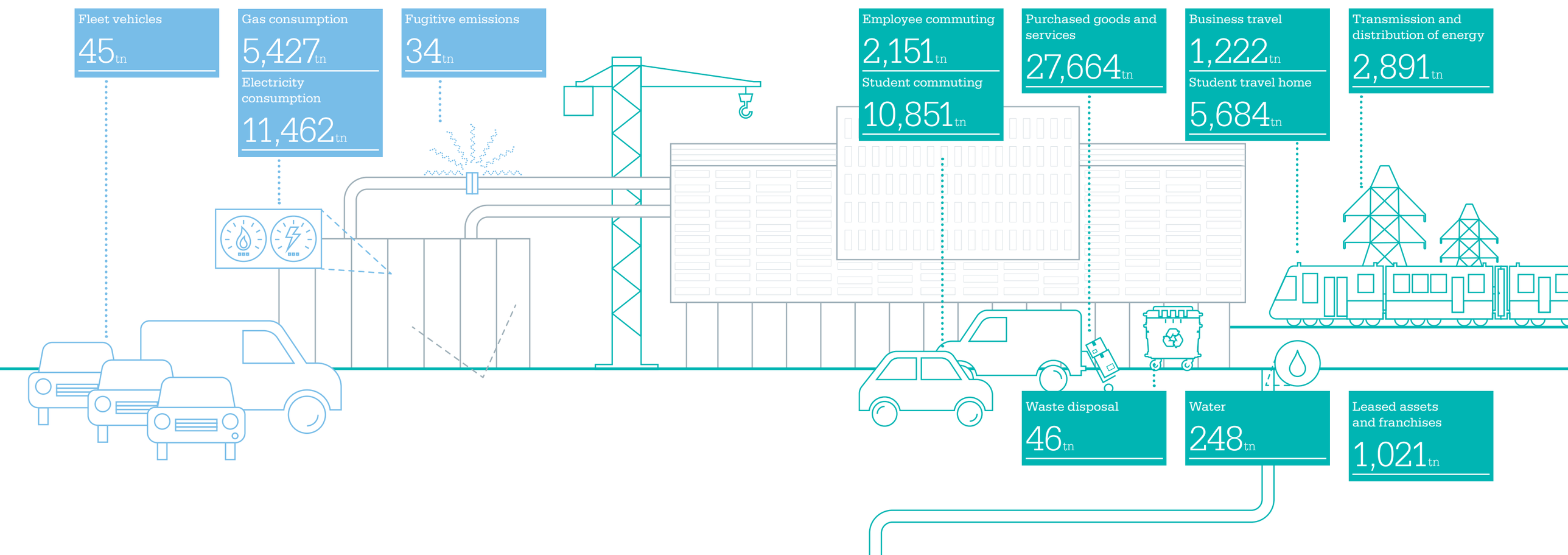
The development of an updated scope 3 addendum report which accompanies the Energy Investment Plan, means that we understand the full extent of our carbon impacts. We now measure and report all of our scope 3 carbon emissions (indirect emissions due to our activities) by source, and are set to develop and refine our methods for doing so in the future.

Our Impact: Total emissions

68,745tn

Our direct scope 1 and 2 emissions in 2015-16 were 16,968 tonnes CO2e

Our indirect scope 3 emissions in 2015-16 were 51,777 tonnes CO2e



Energy Efficiency Projects

To achieve our carbon and energy targets and contribute towards wider UK and global emissions reduction targets, significant investment in energy efficiency measures, carbonisation and innovation in technology are imperative.

Across the year, the delivery of 11 energy efficiency projects is projected to generate carbon savings of 415 tonnes annually, saving the equivalent of £93,600. Because of this, our buildings are more energy efficient, and since the 2005-6 baseline year, the energy efficiency rating of buildings has improved.

LED Lighting Project

The largest project in terms of reduction in emissions and cost was the delivery of an LED lighting project. Over 2,000 inefficient fluorescent lights were replaced with highly efficient LED alternatives, and intelligent lighting control systems were installed in two buildings (Geoffrey Manton and Sandra Burslem). This project alone is expected to save 292 tonnes of carbon and produce a financial saving of £65,000 annually (when compared to the carbon and financial costs if no action had been taken).

Innovation in Cooling Project

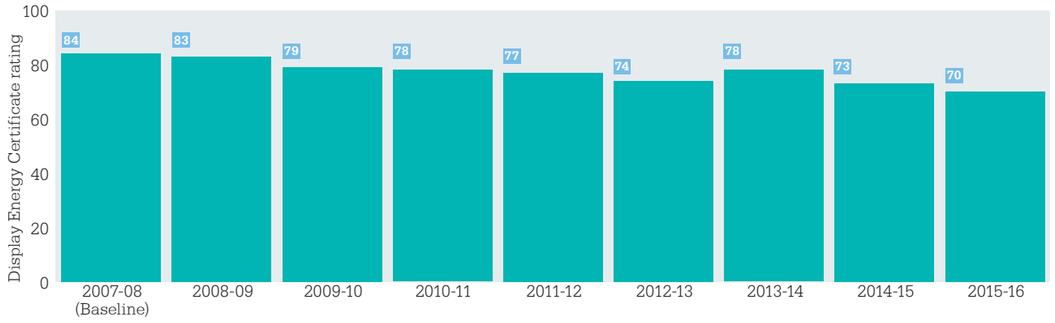
An innovative cooling solution deployed in the All Saints Data Centre has led to a significant reduction in energy consumed for cooling.

All of the cooling units that chill the server racks in the centre through a chilled water system can be cooled for free outside, with minimal energy consumption.

As outside temperatures drop below 11°F, the water is fed outside where it is chilled to the required temperature before being fed back inside to cool units.

The lower the outside temperature, the more 'free cooling' the data centre is able to utilise. This is expected to yield an annual carbon emissions saving of 24.4 tonnes – a saving of nearly £6,000 in energy costs each year.

Building Energy Efficiency



Reducing our carbon emissions by investing in energy efficiency

Environmental Education Fund – scope 3 compensation programme

The university's Centre for Aviation, Transport and the Environment (CATE), undertook an analysis to understand the carbon impacts of international student growth.

The study revealed an increase in annual scope 3 carbon emissions and a series of carbon compensation options.

In response, the university established an 'Environmental Education Fund' to deliver environmental education and training to students and staff.

The value of the fund depends on the levels of international student recruitment – the more the growth, the larger the fund will be.

The fund has enabled the provision of Carbon Literacy training to students and will fund a range of educational projects to enhance skills and knowledge amongst students and staff.

Environmental Management Systems

Our Aim

Maintain and continually improve our environmental management system.

Progress

We achieved ISO14001:2015 certification in February 2016, which means that we were the first UK university to achieve the new and more challenging standard.

We've been working hard to share our experience, by delivering workshops at sector events and conferences, through industry publications and are providing consultancy services to other universities and public sector organisations.

The University Catering Department has achieved silver level in the Sustainable Restaurant Association's 'Food Made Good' programme, to embed sustainability through a framework built on the three pillars of 'sourcing, society and the environment'.

Implementing ISO

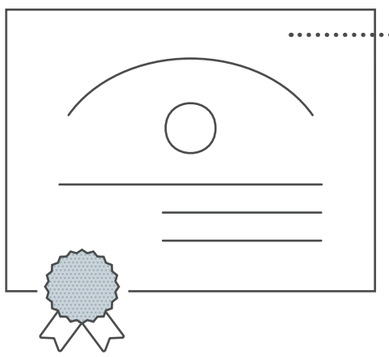
We implemented our Environmental Management System (EMS) using the EcoCampus framework and in 2016 achieved EcoCampus Platinum and ISO14001:2015 simultaneously.

Our EMS consists of 11 areas that link to our environmental sustainability policy. A member of staff is accountable for achieving the objectives and targets, defining roles and for ensuring legal compliance within their area.

We took a devolved approach to the new requirements for context analysis, holding analysis workshops on each strategic policy area and presenting the key risks and opportunities to our Environmental Strategy Board for review.

Going forward, the maintenance and improvement of our ISO14001:2015 certification is essential. We'll work to improve our internal auditing systems and define our programme for resilience to climate change and adaptation.

Performance



ISO14001:2015
certification achieved
Target: Achieve certification by 2016

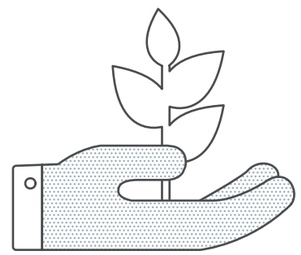
Ethical Investment

Manchester Met has an Ethical Investment Policy and has joined a growing international divestment movement to 'demonstrate climate leadership', along with a number of other universities, organisations and cities.

We are proud that Manchester Met does not invest directly (or through collective funds) in fossil fuel companies, arms companies or corporations complicit in the violation of international law. We also screen out organisations with high exposure to activities or substances which are potentially harmful to health (including alcohol and tobacco), could destabilise community cohesion or threaten international stability.

Our Ethical Investment Policy can be found on our website and is reviewed annually with progress reported in the university's Finance and Resource Committee.

Demonstrating climate leadership by investing responsibly



Pollution Prevention and Legal Compliance

Our Aim

Prevent pollution by minimising local discharges to air, land and water.

Ensure compliance with all relevant environmental legislation and other mandatory obligations.

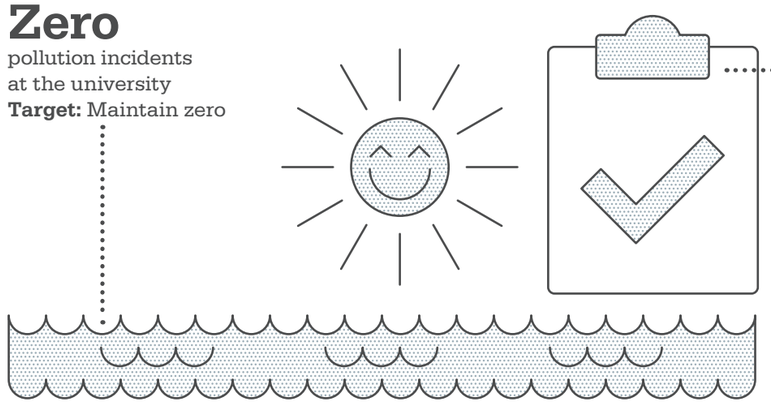
Progress

We developed an emergency spill response procedure and delivered training to key stakeholders across the university during which we tested our response and conducted a mock spill incident.

A full review of the university's compliance obligations and status has been undertaken and appropriate procedures have been implemented to ensure compliance.

Performance

Zero
pollution incidents
at the university
Target: Maintain zero



11
non-conformances raised
Target: Maintain zero

These were raised before our external ISO14001:2015 audit. Corrective action was taken and procedures were put in place to continue to ensure we remain compliant.

Resilience to Climate Change

Our Aim

Ensure the university builds the resilience to weather and climate change risk.

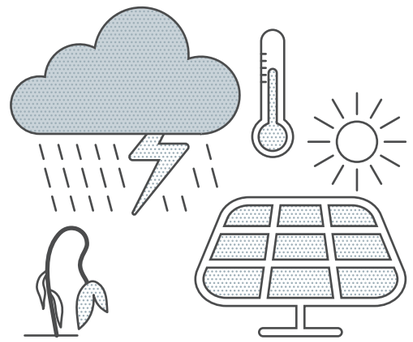
Progress

Alongside managing and reducing our impact on the environment, it is imperative that we increase the university's resilience to climate change impacts.

Resilience to Climate Change is a new Environmental Sustainability Policy area, which aims to examine how we can adapt our policies, procedures and infrastructure to respond to the challenges presented by climate change, and understand the risks that changes in climate present to the university, the wider community and to society.

At Manchester Met, a Business Continuity Steering Group established in 2016 will work to build resilience to climate change and severe weather, and has developed a Business Continuity Policy and an Emergency Management Plan. These will help shape the university's mitigation plans and response to events that pose severe risk to our staff and students.

The Business Continuity Steering Group will develop performance indicators and targets in 2016-17.



Sustainable Buildings

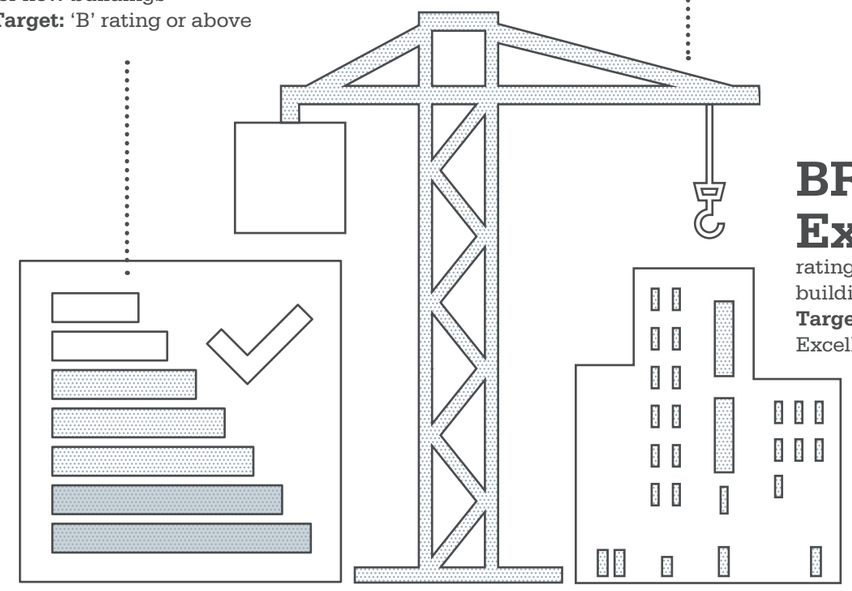
Our Aim

We will embed principles that will minimise the environmental impacts of the university estates from, design to occupation.

Performance

‘B’
Energy Performance Certificate (EPC) rating for new buildings[1]
Target: ‘B’ rating or above

SKA Silver
certification for building refurbishment projects[2]
Target: SKA Silver



BREEAM Excellent
rating for new buildings[1]
Target: BREEAM Excellent

1 Not relevant – zero new builds
2 Not relevant – zero refurb projects

Progress

Although no capital development projects or major building refurbishment work has taken place over the course of the year, the university has been planning the second phase of the Estates Masterplan. We are progressing plans to transform and redevelop key buildings across the estate to support the highest quality research and teaching, and to create the ultimate student experience.

Arts and Media

A new Arts and Media building, replacing the Mabel Tylecote building, will provide an inspirational venue on the Oxford Road corridor. The building will include a new theatre at its core, accompanied by performance, recording and audio facilities, as well as new teaching and office space, and is targeted for a BREEAM ‘Excellent’ rating.

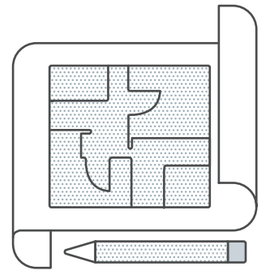
To ensure that environmental sustainability is at the heart of this development, we appointed an external sustainability advisor. This has meant that key elements from the university’s Environmental Design Principles are represented from the design to occupation stages, and minimises the environmental impact of our estates development projects.

We have undertaken a TM54 audit for the Arts and Media building, which indicates that energy consumption will be 58% less than a typical university building.

Refurbishment projects

An SKA assessment carried out for an Ormond Building refurbishment project supports the improvement of sustainability and efficiency for minor projects. This makes us the first organisation in the North West to use the Higher Education SKA tool, and we are on-track to attain a ‘silver’ rating.

Embedding sustainability into building design processes



Sustainable and Ethical Procurement

Our Aim

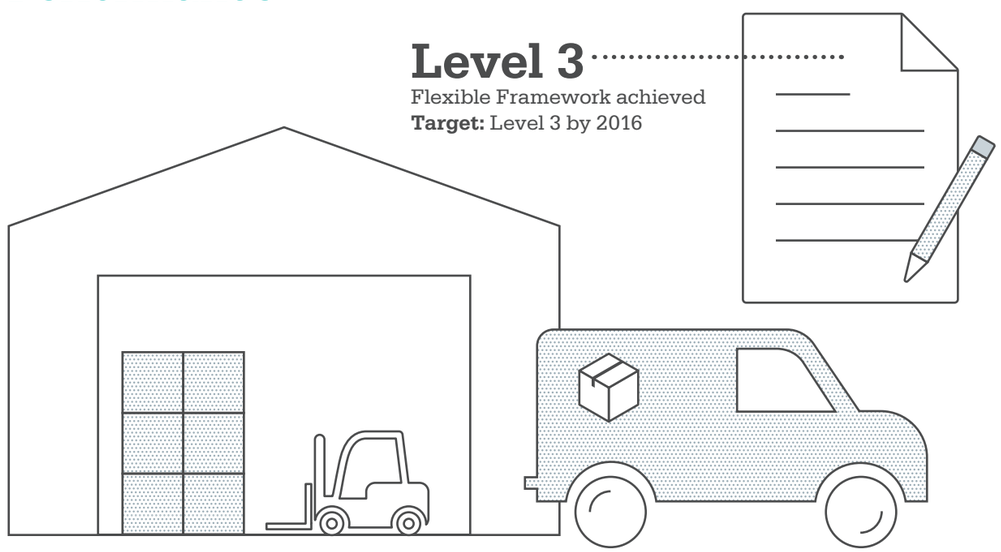
Consider the economic, social and environmental impacts and whole-life costs of purchasing decisions and take appropriate action.

Performance

Level 3

Flexible Framework achieved

Target: Level 3 by 2016



Progress

In August 2016, the university achieved level three of the Flexible Framework, which is a widely used self-assessment mechanism that allows organisations to measure and monitor progress on sustainable procurement over time.

A number of objectives that fall under the Flexible Framework themes – People, Policy, Process, Suppliers and Measurement and Results – resulted in the achievement of level three of a possible five.

People

The delivery of sustainable and ethical procurement training for key staff has equipped participants with the knowledge and skills to incorporate sustainability criteria in tenders and contract management processes.

Suppliers

The implementation of a Supplier Engagement Tool has allowed suppliers to create a bespoke sustainability action plan to suit their business needs. To date, 10.8% (444) of suppliers active on the university's purchase-to-pay system have registered to create a sustainability action plan, the majority of which are micro, small and medium sized enterprises.

Process

The delivery of an appraisal of the sustainability impacts of our procurement activity (Sustainability Impact Assessment) for national high-risk priority areas as defined by the Government's Buying Standards. As a result, we have developed guidance documentation for buyers and incorporated sustainability questions in a selection of tenders.

Measurement and results

We have developed systems to calculate and monitor scope 3 emissions associated with our procurement activities.

Fairtrade University

We have maintained our Fairtrade University status. As part of this process, we reviewed a joint university and Students' Union Fairtrade Policy; delivered a range of awareness and promotional activities for Fairtrade Fortnight 2016, including a 'Fairtrade Big Breakfast'; and demonstrated our continued commitment to providing Fairtrade products in our catering and retail outlets.

The formation of a new Fairtrade steering group, with representatives from Manchester Met, The Union and the student body, will develop a Fairtrade action plan and work to increase awareness and understanding of Fairtrade consumption, products and trade justice.

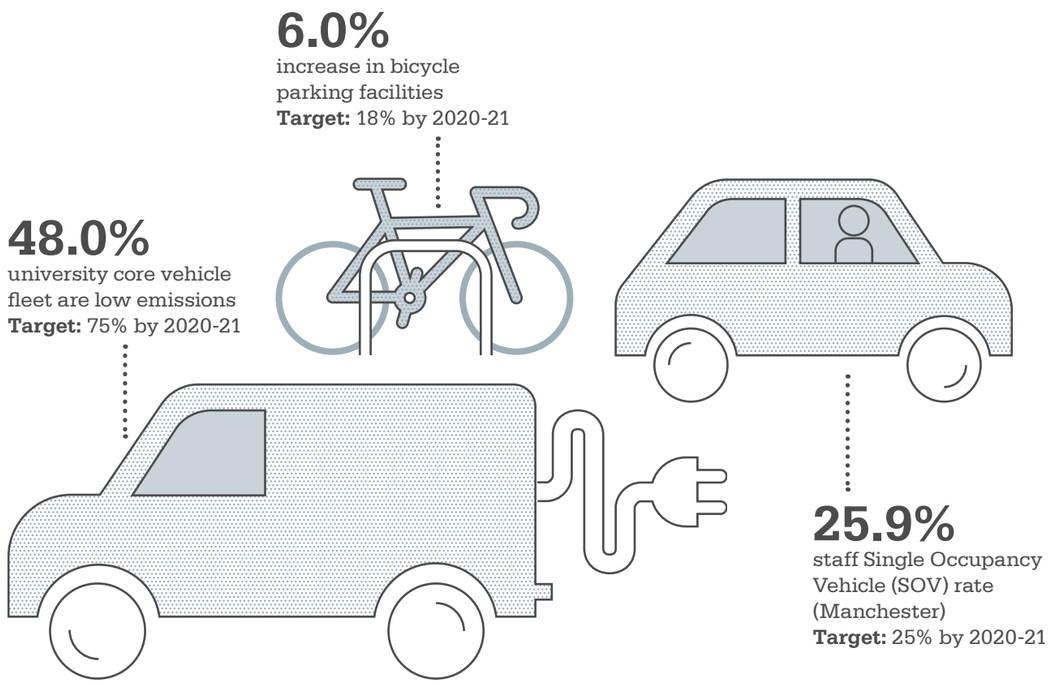
Supporting sustainable practices across the university and beyond

Travel Plan Management

Our Aim

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.

Performance



Progress

We measure the impacts of staff and student commuting, our business travel and our fleet vehicles.

Our Manchester Campus is located in the city centre, where a large proportion of our staff and students commute to university by public transport, cycling and walking.

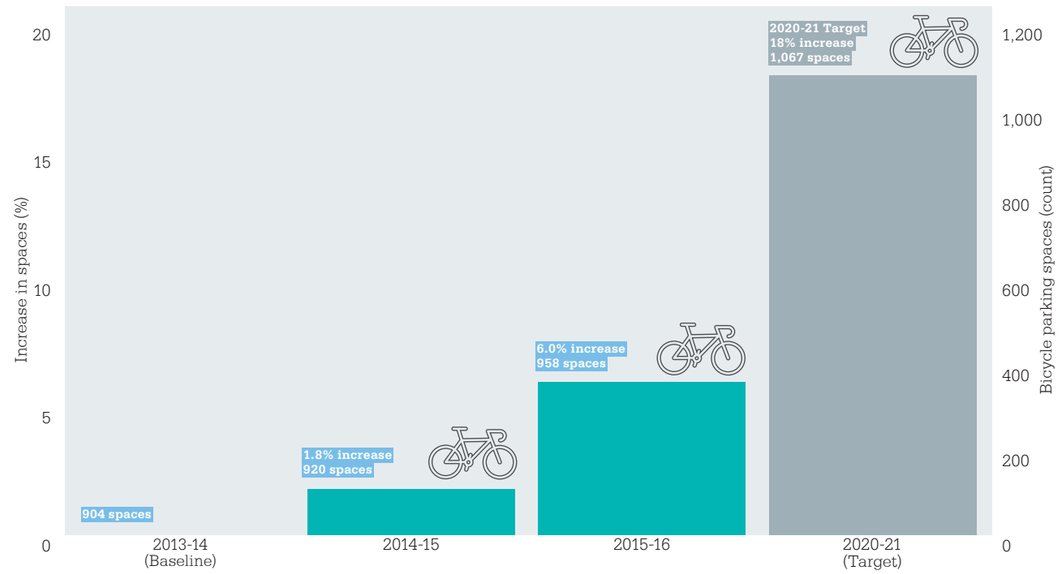
A number of initiatives, infrastructure and travel network investments across the city and at the university are supporting a range of travel choices for people who work, study and live in the city. These projects make public transport and cycling more accessible and convenient.

Oxford Road transformation

The transformation of one of Manchester's key transport routes and one of Europe's busiest bus corridors is underway. Investment into Oxford Road will see it become a pedestrian and cycle-friendly boulevard, and we've also been investing in cycle parking provision in support of Greater Manchester's cycling vision of '10% of all journeys made by bike by 2025'.

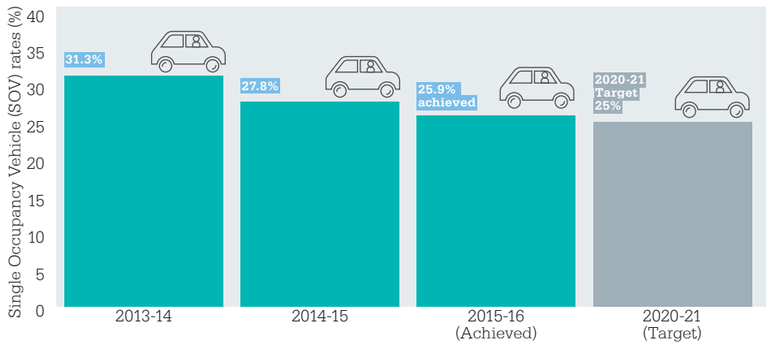
Our cycle parking provision has increased by 6.0% since the 2013-14 baseline year, and an analysis of our existing cycle parking provision and facilities will be undertaken to ensure our future provisions meet an expected increase in journeys made by bike.

Bicycle parking on campus



Staff and student commuting

Single Occupancy Vehicle (SOV) rates (Manchester)



The cumulative proportion of staff driving to work as single occupants has decreased steadily over time: 25.9% of Manchester staff and 64% of Cheshire staff travel to work in this way

Staff commuting (2015-16)– Mode of transport*

Bicycle 8.8%

Public Transport 45.5%

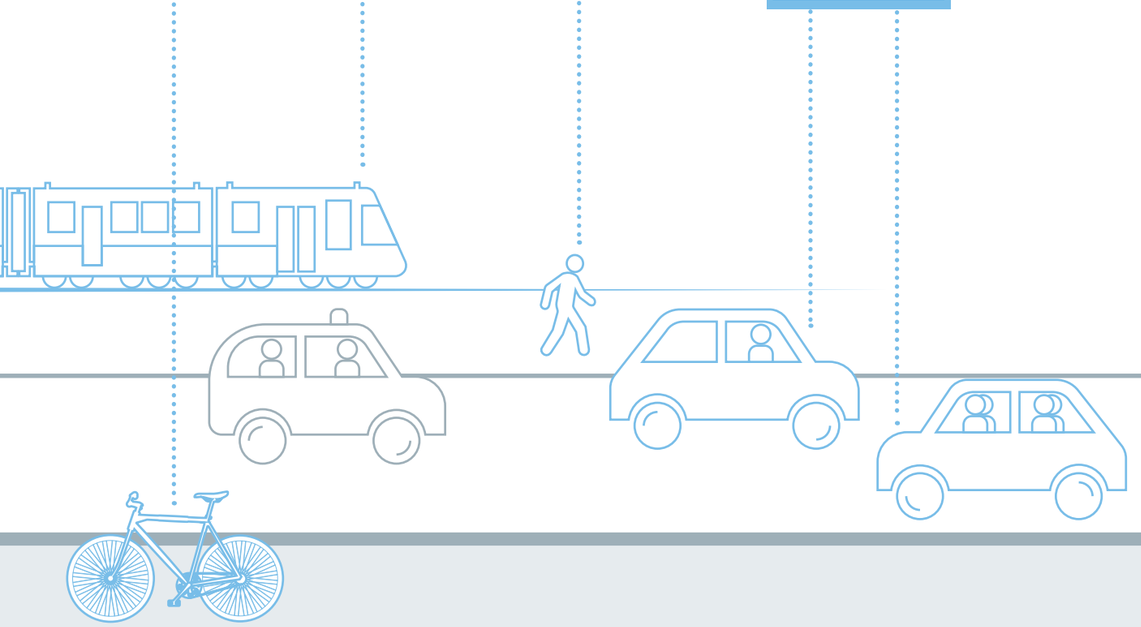
Walk 8.8%

Car (single occupant) 29.6%

Car (multiple occupants) 6.4%

Other 0.9%

More staff travel to work by bicycle, walking or take public transport – 63.1% travelled this way in 2015-16, an increase from 60.4% in 2014-15.



*Average figures presented for Manchester and Cheshire Campuses.
Source: Manchester Metropolitan University Staff Travel Survey

Modes of travel are gradually shifting – more students and staff are travelling by public transport

Student commuting (2015-16) – Mode of transport*

Bicycle 3.6%
More students now travel this way
(3.5% in 2014-15)

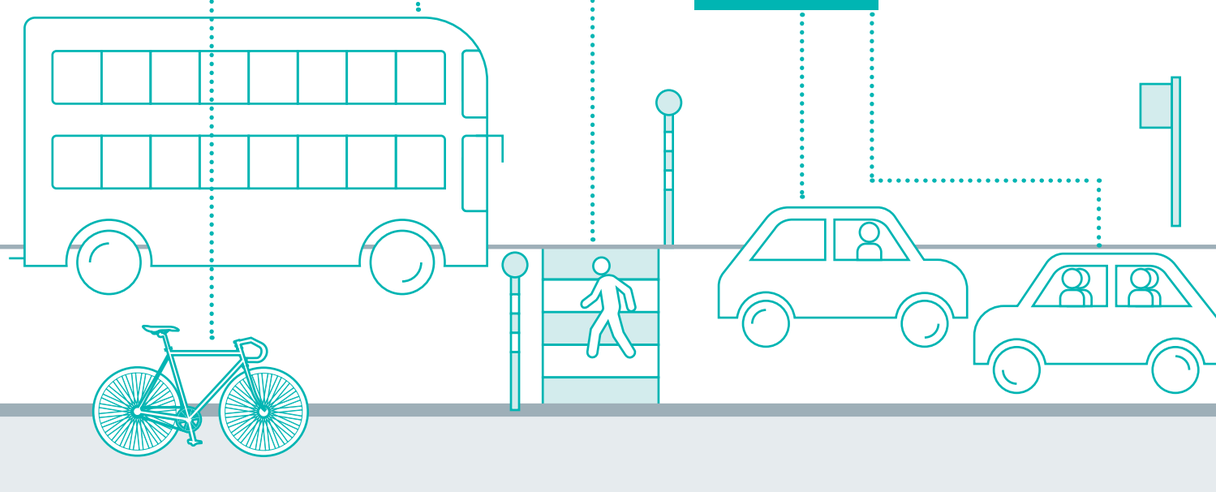
Public Transport 54.1%
More students now travel this way
(51.3% in 2014-15)

Walk 24.1%
Fewer students now travel this way
(27.2% in 2014-15)

Car (single occupant) 13.2%

Car (multiple occupants) 1.0%
Fewer students travel as single car drivers
(14.3% in 2014-15)

Other 4.0%



*Student mode of transport to university (Manchester and Cheshire Students)
Source: Manchester Metropolitan University student online enrolment survey (2015-16)

Low emissions vehicles

As a result of investments in Low Emissions Vehicles, 48.0% of our core vehicle fleet are either electric or low emission (hybrid) vehicles (against a target of 75% by 2020-21).

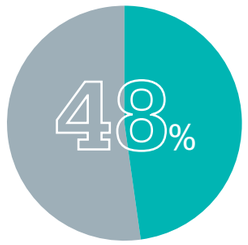
The university was awarded the 'Go Ultra Low Company' status in 2016, which acknowledges companies that have included significant numbers of electric vehicles within their fleets, with a commitment to add more before 2020.

Since 2013-14, there has been a 27.0% reduction in scope 1 carbon emissions directly associated with our core vehicle fleet. This has been influenced by factors including the replacement of high emission vehicles with electric and low emission vehicles, and fleet consolidation.

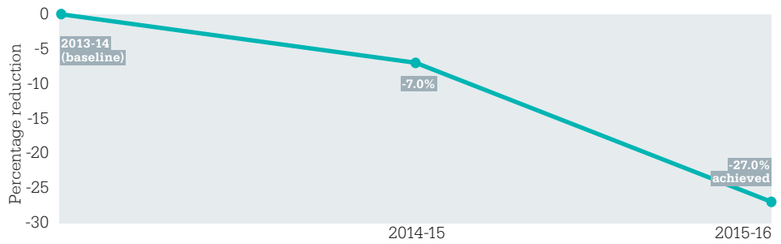
Electric pool car scheme

Staff uptake in an electric vehicle pool car scheme has reduced the university's business car mileage and the associated emissions and costs. Staff travelled 20,200km in electric vehicles over the year – the majority of these journeys would otherwise have been made in private vehicles. This has reduced our scope 3 business travel emissions and avoided 1.24 tonnes of carbon emissions, an equivalent saving of £4,650 in fuel costs.

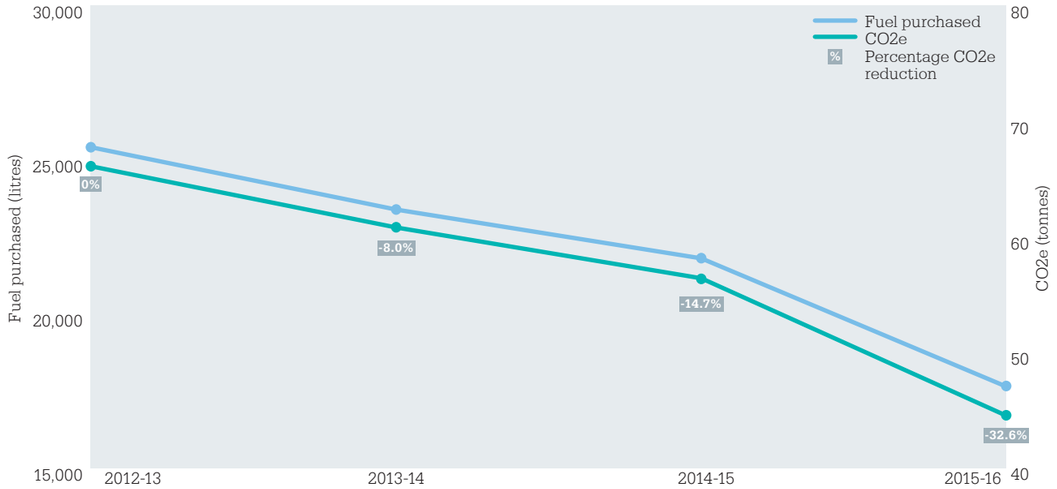
Proportion fleet LEV (2015-16)



Scope 1 transport emissions



Electric pool car scheme – carbon and fuel savings



'Encouraging and facilitating a shift to alternative fuelled vehicles'
(Greater Manchester Transport Strategy 2040)

Waste and Resource Management

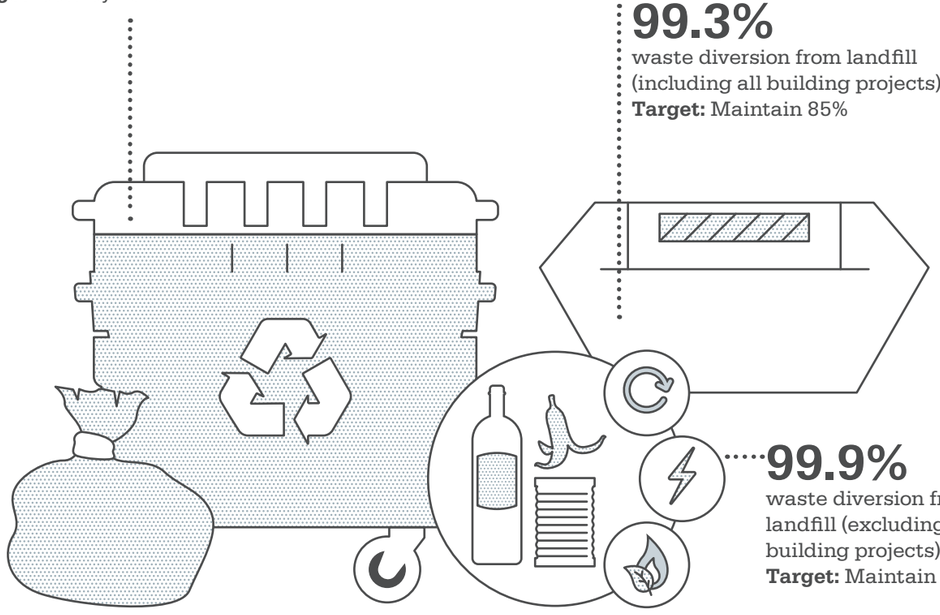
Our Aim

Embed the principles of the waste hierarchy to prevent, reduce, reuse, recycle and dispose of our wastes.

Performance

46.3%
reuse and recycling rate (on-site)
Target: 60% by 2020-21

99.3%
waste diversion from landfill (including all building projects)
Target: Maintain 85%



99.9%
waste diversion from landfill (excluding all building projects)
Target: Maintain 95%

Progress

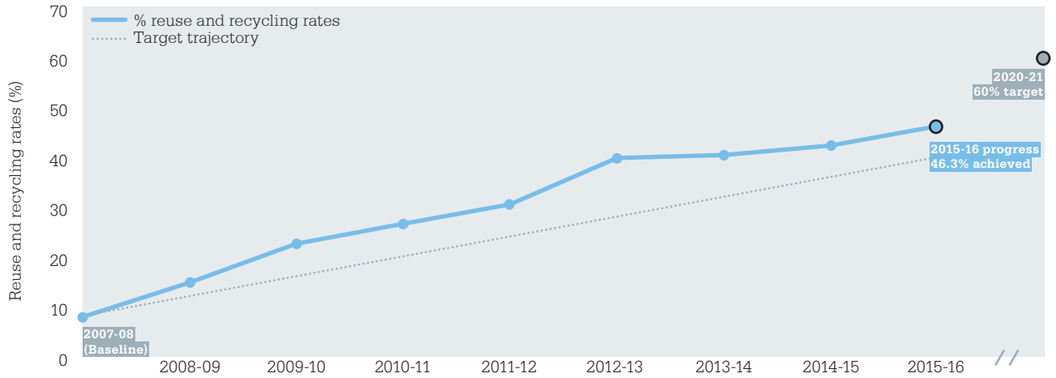
We measure our on-site reuse and recycling rate. This includes all waste segregated on-site, and either collected through our main waste contract, special collections, or donation initiatives.

Reporting our on-site reuse and recycling rate provides an indication of recycling behaviours, and helps us understand the extent to which staff, students and visitors recycle. Our reuse and recycling rate is 46.3%, which demonstrates good progress towards reaching 60% reuse and recycling rate by 2020. The development of a 'Waste and Resource Investment Plan' will set out how we'll meet our ambitious targets.

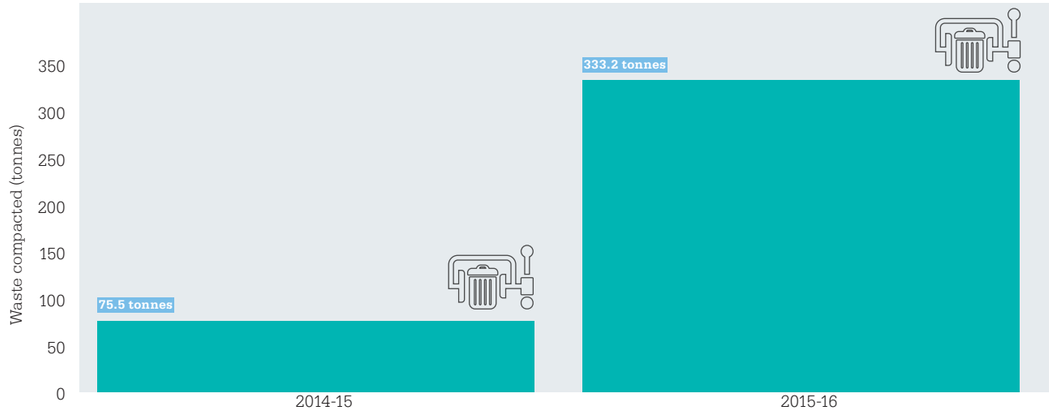
Improved waste management

We have expanded on-site general waste compaction provision by investing in additional equipment. The addition of an All Saints compactor now provides capacity to compact waste from six university buildings. An additional compactor at Booth Student Living has further improved the accuracy of our weight data, waste management and control. It has also reduced vehicle and noise disruption on campus, and significantly reduced our general waste disposal costs. As a result, an approximate financial saving of £23,544 (2015-16) has been generated.

Reuse and recycling rates (excluding all building projects) – on-site



General waste compacted on-site



Anaerobic digestion

More of our food waste is anaerobically digested to produce biogas, which is used as a fuel to produce heat and digestate, a nitrogen rich fertiliser.

5.9% (100.9 tonnes) of our total waste is now segregated as food waste, an increase from 2.1% in 2014-15. This is a result of implementing food recycling in student accommodation and across key areas including catering outlets, operational and staff kitchen areas.

It costs 38% less to dispose of food through our waste contractor than through non-segregated general waste. The implementation of food recycling provisions has created a financial saving of £8,480 in 2015-16.

Make your move count

We led the development of a new end of term move-out donation and recycling campaign, called 'Give it don't bin it'.

In conjunction with the Manchester Student Partnership, we developed a campaign identity and shared messages across social media to over 70,000 students.

Our ultimate aim was to encourage students to donate items that might otherwise be thrown away, and to recycle.

In total, 121.4 tonnes of items were donated by students across Manchester, which will raise approximately £217,689 for the British Heart Foundation.

Food donations were integral to this year's campaign and donation bins were located in Student Living receptions to make the process more accessible. 1,132kg of food was donated to the Manchester Central Foodbank by Manchester Met students. This is the equivalent of 2,695 meals.

Ideas into Action – TetraBin

We are investigating whether the use of technology and gamification in urban environments can have a positive impact on recycling behaviours on campus.

We have been working in partnership with the developers of TetraBin to retrofit a selection of our external recycling hubs with interactive LED technology, programmed so that users can engage with the TetraBin game.

Users can activate the technology by disposing of their rubbish. The technology is open source and designed to create further engagement opportunities so that the university and students can programme the bin to display messages or alternative games in the future.

Ideas into Action – repurposing vinyl banners

Rather than disposing of vinyl banners, we realised they had the potential to be repurposed.

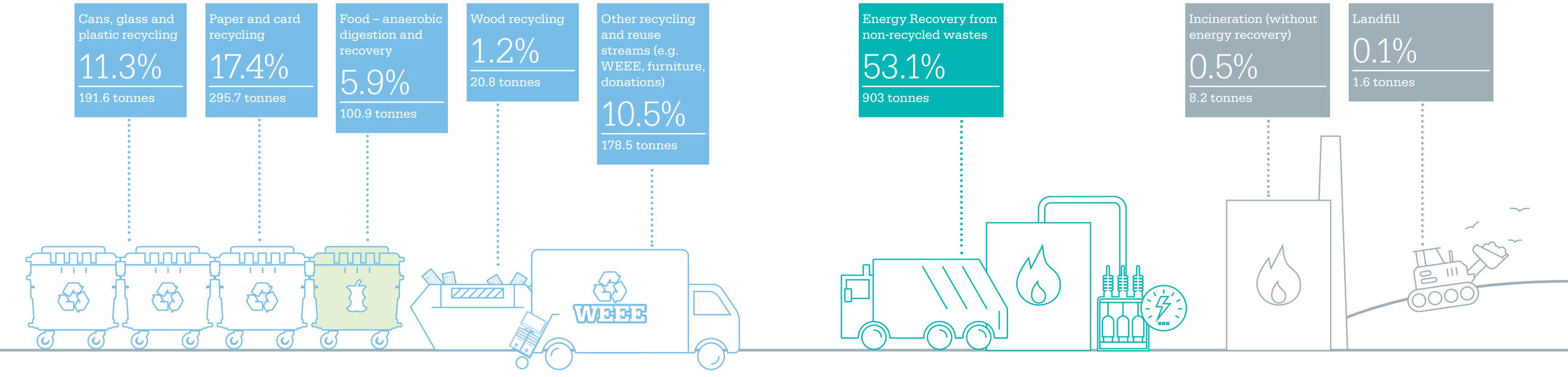
We collaborated with the Apparel Department and considered a number of product prototypes. By working with a local sustainable fashion collective called 'Stitched Up', we selected to remake the vinyl banners into bags and wallets, which were distributed to staff and students.

The project demonstrates how our waste can be repurposed on a large scale, and the vinyl products were exhibited in our main library. We are now developing the project with our School of Art, looking at other options for repurposing this waste.

What happens to our waste

(excluding building projects)

Recycling and Reuse – 46.3%



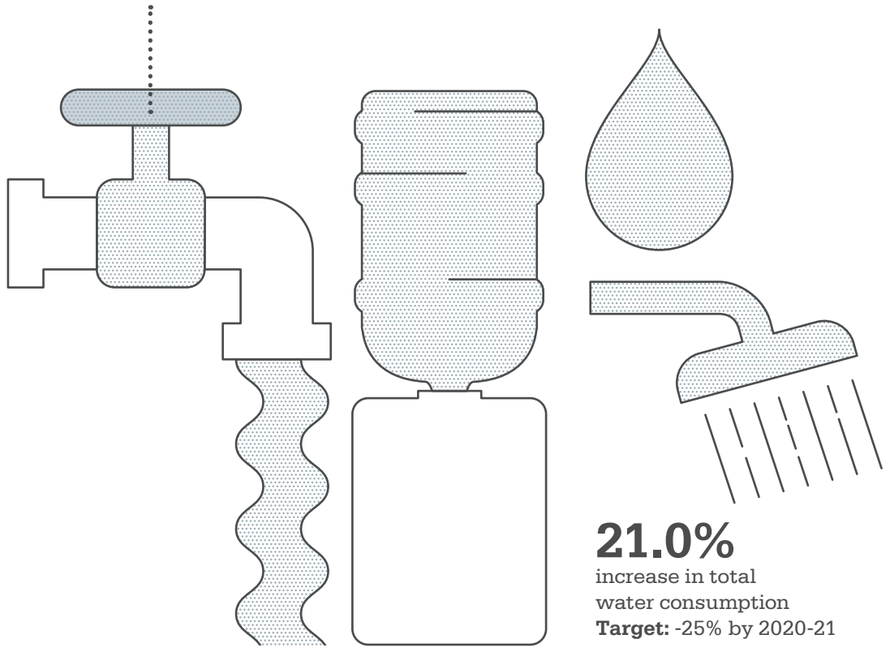
Water Management

Our Aim

Effectively manage and reduce water consumption across our estate and increase the deployment of sustainable drainage and flood prevention measures.

Performance

17.4%
increase in mains
water consumption
Target: -35% by 2020-21



21.0%
increase in total
water consumption
Target: -25% by 2020-21

Progress

Since the baseline year 2010-11, our total water consumption has increased by 21%. During the year, a number of issues contributed directly to our increase in consumption:

– A substantial underground leak at All Saints Campus. We identified and repaired the leak, saving approximately 70m³ water per day. As a result of this major leak, we have implemented auto leak detection systems.

– The water systems at Birley Campus were required to undergo further rigorous checks to obtain a potable water licence, which has meant the consumption of mains water rather than from an alternative, more sustainable source.

– The Business School borehole, normally providing greywater to flush the building toilets, was out of commission for eight months of the year.

Water consumption

We have continued to invest in technologies and systems to reduce the consumption of water in our buildings, and are monitoring the scope 3 emissions directly associated water consumption.

Control and response systems

The installation of leak detection loggers on seven high water usage buildings will improve our ability to monitor and respond quickly to future leaks. The leak detection technology interfaces with the university's Building Management System (BMS), which means that building operators are alerted to unexpected water consumption levels through the BMS almost immediately.

Monitoring

Birley Student Accommodation houses 967 students and is a large consumer of water. We have installed 93 water sub meters in each of the flats and townhouses which connect to building control and monitoring systems to improve how we monitor water usage. Sub meters will provide detailed information, helping us to understand patterns of consumption, identify water inefficiencies and leaks, and target future potential for reductions in consumption and eliminate wastage.

Reducing mains water

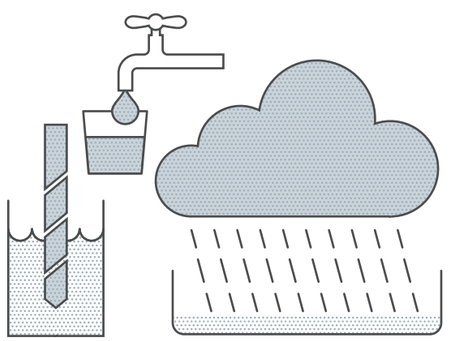
Rainwater harvesting systems continue to be designed into our building developments. In the new Arts and Media building, a rainwater harvesting tank will provide a proportion of the water required to flush building toilets, thereby reducing our consumption of non-essential mains water for this purpose.

A range of systems including borehole potable and non-potable water at Birley Campus and the Business School, greywater and rainwater harvesting have reduced our mains water consumption. In total, our non-mains water consumption was 7,033m³ in 2015-16, accounting for approximately 3% of our water needs.

Reducing flash flooding

Installing green roofs on new buildings helps to prevent flash flooding after intense rainfall by significantly reducing the surface run-off volumes and rates of rainfall leaving roofs. A planned green roof at the new Arts and Media building, in addition to green roofs on All Saints building and the Business School, will reduce the amount of surface water drainage, helping to mitigate against the risks of flash flooding.

More effective and efficient water management systems



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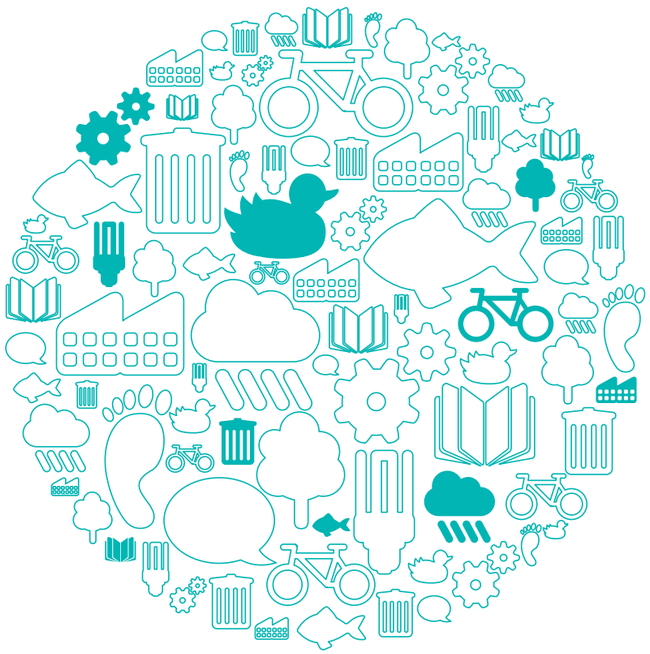
Let's make a
sustainable planet
at Manchester Met

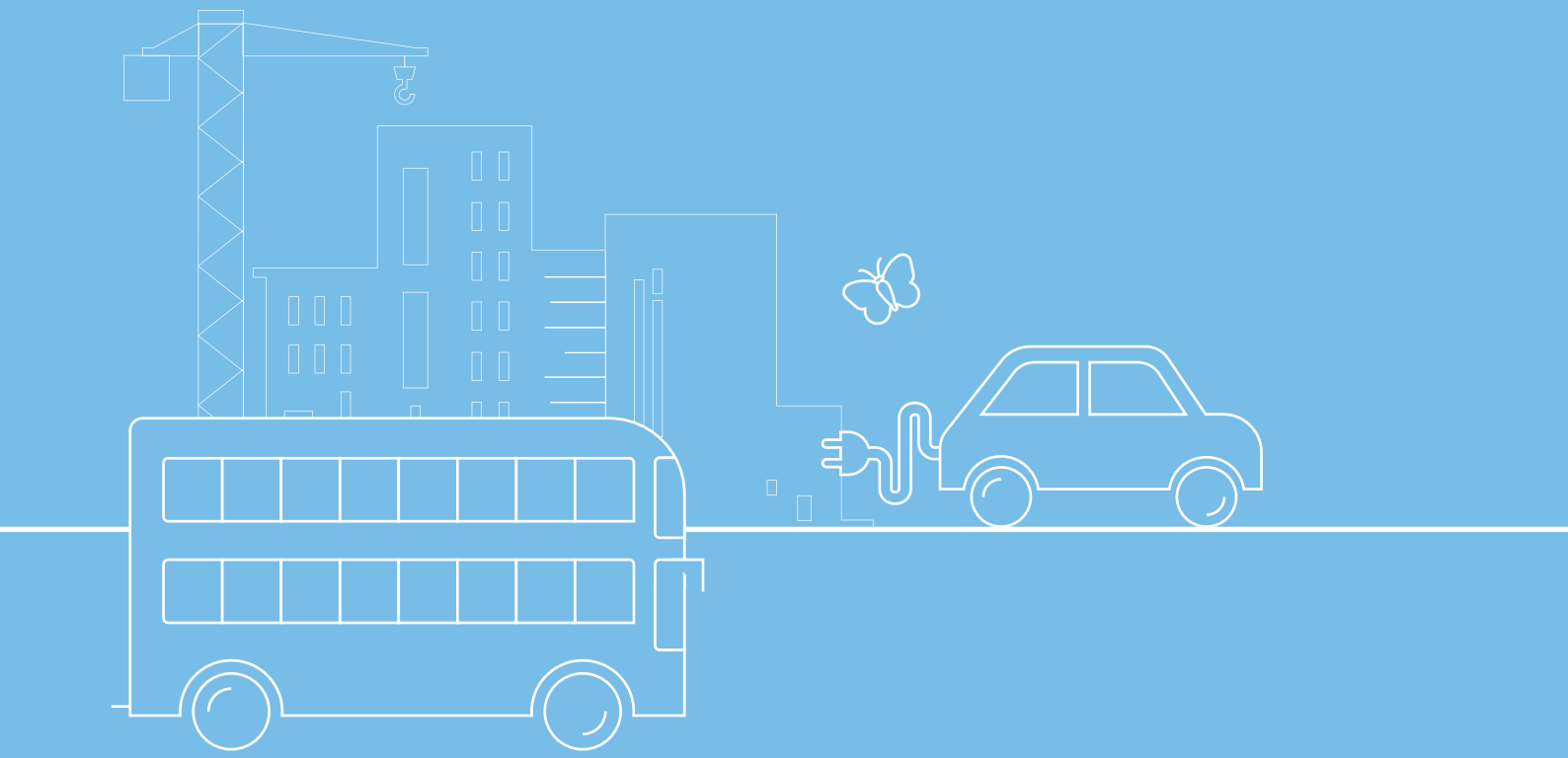


Key Performance Indicators

Objective	Key Performance Indicator	Baseline year	2014-15	Progress 2015-16	Target and date achieved by	On-track to meet target
Learning for a Sustainable Future						
Deliver, embed and enhance activities that develop knowledge, skills and attributes for sustainable development amongst students	Percentage of students that perceive they are gaining the skills and knowledge that are helping them understand key global sustainability issues	2015-16	N/A	**60.6%**	80% by 2020-21	●●●
Support professional development opportunities that equip staff with the knowledge and skills to embed Education for Sustainable Development, and support the sustainability commitments of the university	Percentage of staff who feel that the university has provided professional development opportunities that increase awareness and understanding of environmental sustainability	2015-16	N/A	**39.7%**	Baseline staff survey score by 2016-17	N/A
Deliver effective communications that support knowledge, skills, and attributes for sustainable development and promote our reputation as a leading sustainable university	Student perception of Manchester Metropolitan as an environmentally sustainable university	N/A	83.0%	**86.0%**	Maintain score of 80%	●●●
	Staff perception of Manchester Metropolitan as an environmentally sustainable university	2015-16	N/A	**75.8%**	80% by 2020-21	●●●
Biodiversity and Growing Systems						
Undertake university-wide biodiversity audits to monitor priority habitats and species, and inform the development of appropriate management, maintenance and conservation plans	Number of different habitat types and/or number of different species	2013-14	207 habitats 12 species	**279 species** **13 habitats**	Measure and maintain habitat and/or species diversity	●●●
Evaluate and promote the multifunctional benefits from the university's green infrastructure	Number of different opportunities for engagement	2013-14	18	**22 engagement opportunities**	Measure and increase engagement opportunities	●●●
Promote the use of university buildings to enhance habitat connections within and between campuses	Number of physical connections between habitats	2015-16	72	**72**	Measure and maintain habitat connectivity	●●●
Carbon and Energy Management						
Reduce scope 1 and 2 carbon emissions	Percentage reduction of CO2e emissions	2005-06	-14.8%	**-23.5%**	50% reduction by 2020-21	●●○
Reduce energy consumption	Percentage reduction gas consumption (kWh)	2005-06	-34.8%	**-35.8%**	50% reduction in gas and electricity by 2020-21	●●●
	Percentage reduction electricity consumption (kWh)	2005-06	-6.4%	**-7.2%**	50% reduction in gas and electricity by 2020-21	●●○
Improve Display Energy Certificate (DEC) rating of university buildings	Average DEC rating	2007-08	72.8	**70.0 ('C' rated)**	Achieve average DEC rating of above C	●●●
Measure and report scope 3 emissions	Total scope 3 emissions (including purchased goods and services, business travel, employee and student commuting, waste disposal, leased assets and franchises, transmission and distribution of energy)	N/A	N/A	**51,777**	Measure scope 3 emissions	●●●

Objective	Key Performance Indicator	Baseline year	2014-15	Progress 2015-16	Target and date achieved by	On-track to meet target
Environmental Management Systems						
Maintain ISO14001:2015 accreditation	Certification to ISO14001:2015 standard	NA	EcoCampus 'Gold'	**Certification to ISO14001:2015**	Maintain and continually improve certification	●●●
Pollution Prevention and Legal Compliance						
Reduce number of pollution incidents to land, surface and groundwater	Number of pollution incidents	N/A	Not available	**0 incidents**	Zero pollution incidents	●●●
Determine and understand the university's environmental compliance obligations and evaluate our compliance status	Number of non-conformances due to a breach in our compliance obligations	N/A	Not available	**11 non-conformances or breaches identified and rectified**	Zero non-conformances related to a breach in our compliance obligations	●●●
Resilience to Climate Change						
To ensure the university is developing Emergency Plans to respond to severe weather and flooding	NA (not developed)	N/A	N/A	**N/A**	To be developed	N/A
Develop and deliver training to staff ensuring the university is prepared for climate change risks	NA (not developed)	N/A	N/A	**N/A**	To be developed	N/A
Sustainable Buildings						
Improve Energy Performance Certificate (EPC) ratings for new builds	EPC Rating	N/A	N/A	**Not relevant – zero new builds**	Achieve B Rating or above	●●●
Achieve BREEAM Rating for new builds	BREEAM Rating	N/A	BREEAM 'Good' rating – Birley Student Living	**Not relevant – zero new builds**	Achieve Excellent rating or above	●●●
Achieve SKA Certification for appropriate building refurbishment projects	Level of SKA Award	N/A	N/A	**Not relevant – zero relevant refurbishment projects**	Achieve Silver SKA Award	●●●
Sustainable & Ethical Procurement						
Improve sustainable procurement practice at the university	Level of Flexible Framework	N/A	Level 2	**Level 3**	Achieve level 3 by 2016	●●●
Travel Plan Management						
Reduce number of Manchester based Single Occupancy Vehicle journeys direct to campus	Percentage Single Occupancy Vehicle (SOV) rate	N/A	27.8%	**25.9%**	25% by 2020-21	●●●
Increase the proportion of low emission vehicles in the university's core vehicle fleet	Percentage of Low Emission Vehicles (LEVs)	N/A	38.0%	**48.0%**	75% by 2020-21	●●●
Enhance cycle parking infrastructure to encourage the uptake of journeys by bicycle	Percentage increase of bicycle parking facilities	2013-14	1.8% increase	**6.0% increase**	18% increase by 2020-21	●●○
Waste and Resource Management						
Increase reuse and recycling (on-site)	Reuse and recycling rate	2007-08	42.4%	**46.3%**	60% by 2020-21	●●●
Divert waste from landfill (excluding waste from all building projects)	Percentage of waste diverted	N/A	N/A	**99.9%**	Maintain 95% waste diversion	●●●
Divert waste from landfill (including waste from all building projects)	Percentage of waste diverted	N/A	N/A	**99.3%**	Maintain 85% waste diversion	●●●
Water Management						
Reduce total water consumption	Percentage reduction of total water use	2010-11	1.9% increase	**21.0% increase**	25% reduction by 2020-21	●○○
Reduce mains water consumption	Percentage reduction of mains water use	2010-11	-4.1% decrease	**17.4% increase**	35% reduction by 2020-21	●○○

Manchester Metropolitan University



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sustainable planet