

# Striving for a Sustainable Salford



**Environmental Sustainability Plan 2018-2030**

**Annual Report 2021-2022**

June 2023 version 1.0



University of  
**Salford**  
MANCHESTER

| <b>Document Control Information</b>                        |                           |                |                                                                                |
|------------------------------------------------------------|---------------------------|----------------|--------------------------------------------------------------------------------|
| <b>Author</b>                                              | <b>Summary of changes</b> | <b>Version</b> | <b>Authorised &amp; Date</b>                                                   |
| Bec Bennett,<br>Assistant<br>Director of<br>Sustainability | Creation of document      | V1.0           | Professor Will Swan, Director of<br>Sustainability, 14 <sup>th</sup> July 2023 |

# Our Mission

By pioneering exceptional industry partnerships, we will lead the way in real world experiences preparing students for life.

As a civic institution, our mission is to:

- / Educate the next generation of modern industrialists, innovators, creators, entrepreneurs and leaders
- / Develop the skills and knowledge needed to capitalise on the next industrial revolution
- / Work in collaboration with public and private sector partners to address local and global economic and societal challenges

# Our Vision for Sustainability

By embedding sustainability in all aspects of University life, we will enable our University community to have maximum beneficial impacts for society and environment.

# The Sustainable Development Goals

The Sustainable Development Goals, or Global Goals, are a call for action by all countries to promote prosperity while protecting the planet. We are aligning our Environmental Sustainability Plan to the Global Goals by mapping each area to the relevant goals.



# Progress Summary 2021/22

This document summarises key performance and outcomes in environmental sustainability for the University of Salford during 2021/22. A summary of our key performance indicators are shown in Appendix A.

## Strategy and Environmental Management

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This year, we have strengthened the governance and delivery of our Environmental Sustainability Plan by embedding our commitments, including Net Zero Carbon by 2038, into our University Strategic Plan and appointing an Executive Lead for Sustainability in the Vice Chancellor's Executive Team and a new Director of Sustainability. Karl Dayson, Pro Vice-Chancellor Research and Enterprise, and Professor Will Swan, Director of Energy House Laboratories and Director of Sustainability, will provide leadership and positive influence for sustainability within the University and beyond to help create the change required to move towards a net zero carbon future.

We continue to refer to the Sustainable Development Goals, or Global Goals, in developing and implementing our University Strategy as well as our Environmental Sustainability Plan. Our four Schools, covering areas of the arts, media, creative technologies, business, health, society, science, engineering, and the environment, are the engine room of our university. Through their expert and industry-informed knowledge they provide our graduates with the necessary skills, experience, social capital, civic engagement, confidence, and resilience to improve the lives of local and global communities. Our researchers tackle issues across: environmental change; the need to move to a sustainable model for the economy; achieving net zero; technological transformation; political splintering; conflict; security; maintaining and improving social cohesion and human connection; and meeting increasing physical and mental health needs.

In September 2021, we were proud to co-sign the Greater Manchester Civic University Agreement alongside the other higher education institutions in our city region, as well as the Greater Manchester Mayor and the Combined Authority. The agreement includes the commitment to work towards the Greater Manchester city region wide target of net zero carbon by 2038.

This year we were pleased our progress in Environmental Sustainability was recognised with a first-class award in the 2021 People and Planet University League. The independent rankings, published by The Guardian, placed us 12th out of 154 UK institutions, an increase from 64th in the last league table in 2019. Compiled by the UK's largest student campaigning network, People & Planet's University League is the only comprehensive and independent league table of UK universities, ranking UK institutions by their environmental and ethical performance based on an evolving set of criteria from energy sources and waste to sustainable food and education for sustainable development. We scored highly in Policy and Strategy, Environmental Management Systems, Managing Carbon and Carbon Reduction and Education for Sustainable Development. With an overall score of 72.6%, this is the University's highest total to date. The University scored especially highly in Policy and Strategy (100%), Environmental Management Systems (100%), Education (99%) and Carbon Management (90%).

We have also maintained our certification for EcoCampus Platinum, ISO 14001:2015 and ISO 50001:2018 standards with a successful re-certification audit on our Environmental and Energy

Management System. No Non-Conformities were identified at this audit. The findings included three Opportunities for Improvement related to energy management, storage of hazardous waste and maintenance of the air conditioning system; all three have been addressed following the audit. We have subsequently had a major con-conformity on waste management; however, improved waste management procedures have addressed this and continue to be effective.



## Carbon & Energy

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Through our Environmental and Energy Management System we continue to ensure continual improvement including identifying energy efficiency and carbon reduction opportunities in line with our new ways of working post-pandemic as we develop our roadmap to net zero. In terms of energy consumption, during this year we have seen an increase in consumption of energy and water compared to the previous year as expected as we return activity to campus but retain covid ventilation protocols.

Our heat decarbonisation journey has begun with the support of £1.2M Public Sector Decarbonisation Scheme funding (Including 25% UoS match funding) for our first retrofit heat pump to replace gas heating, building fabric improvements and addition of solar PV for our Clifford Whitworth Library building which, when completed in 2023, will result in a 95% reduction in fossil fuel use by the building.

We have established our Net Zero Carbon commitment as a University strategic project to ensure we are reporting into the University senior governance. We have maintained our 71% reduction in carbon emissions since 2005/6 despite some bounce back in emissions post-pandemic as the University community return to campus. This has been the result of better managed gas consumption through heating controls and other energy efficiency projects implemented through an £800k internal investment (Energy Innovations Budget) over the last 3 years.

We have also published our Scope 3 Carbon Emissions Report as we recognise the importance of identifying, measuring, and tackling these emissions.

## Waste Management

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Through good management, training, and awareness we have maintained a reduction in our total waste production and increased recycling rates despite an increase in campus users post-pandemic.

Over the next few years, we will continue to improve reduction and reuse of wastes as we move to a circular economy model.

One of our areas of focus is the Plastic Free UoS campaign, which started as we pledged to remove avoidable single use plastics from the catering, labs and stationery as part of the region wide PlasticFreeGM pledge. As part of the campaign, we have been auditing university departments to identify the single-use plastics which are currently being used and which could be avoided or replaced, as well as to collect case studies of good practice. Although progress has been delayed somewhat due to the pandemic, some examples of the latter include: digital systems used by the Conference Team which removed the need for plastic signs and collateral; the Sports Centre swapping plastic cups for paper cones and reusable bottles; 3D printing waste from the Maker Space workshop being reused to make plant pots instead of going to landfill; as well as catering outlets on campus offering wooden cutlery, paper straws, plant-based takeaway boxes, and discounts for customers bringing their own cup.

## Sustainable Procurement

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We have continued to focus on our highest sustainability risk area of procurement in Estates and Buildings. We have implemented a policy to ensure a minimum of 10% for all tender evaluations in Estates contracts and purchases and continue to work with key suppliers such as catering to embed sustainable practices.

## Sustainable Construction

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Our new Science, Engineering and Environments, North of England Robotics Innovation Centre and Energy House 2.0 buildings are all on track to achieve BREEAM Excellent on construction and all three are all-electric in line with our strategy to achieve our Net Zero Carbon commitments.

Our SEE building's 15,300 sqm, four-storey design introduces specialist laboratories, design studios and collaborative spaces to our Peel Park campus. The building is 100% electric powered - a rarity in higher education. The design includes an air source heat pump system and partly powered by 154 Photovoltaic (PV) panels installed on the roof. Sustainable design elements also include opening windows and the use of a stack effect in the atriums to support ventilation. A huge roof light floods the space with natural light so we can reduce artificial lighting demand too.

We are currently working to further develop our Sustainable Construction Policy to ensure our new developments support our ambitions for Net Zero Carbon. We recognise that we can improve further, particularly when considering retrofit and refurbishment of existing buildings and ensuring these meet our Sustainable Construction policy commitments.



## Travel and Transport

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In November 2021, the University participated in the first stage of the roll out of the Bee Network Cycle Hire scheme, operated by Transport for Greater Manchester. For two weeks before the official launch, the University staff and students had early access to standard and electric bikes across the Peel Park and Frederick Road campuses. Since then, the scheme has successfully operated on all our campuses. This is Greater Manchester's first publicly operated self-service cycle hire scheme, which forms part of the region's broader sustainability strategy.

Following an audit at the end of 2021, we were delighted to be awarded the Gold Cycle Friendly Employer award. The Cycle Friendly Employer scheme, run by Cycling UK, is a framework for employers to promote and enable cycling at their workplace. This scheme helps to support our actions to encourage the shift to more sustainable travel by colleagues and students, as set out in our Sustainable Travel Plan. The judges were impressed by the University's commitment to improving our facilities for cycling, such the installation of our new maintenance stations.

We have also further added electric vehicles to the University vehicle fleet.



## Biodiversity

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We have received a Green Flag Award for the third year for our campus and continue to manage our campus to encourage wildlife such as hedgehogs, this year receiving our Silver Hedgehog Friendly Campus award and launching a new community growing space on campus. Despite CV-19 impacting on resources, our Landscape Management Team have worked hard to ensure our campus green spaces remain accessible and attractive to our local community to support physical activity and mental wellbeing, the value of which has been particularly highlighted during the pandemic as well as encouraging biodiversity. Our Landscape Management Plan details our full approach.



We have also further developed our community garden space on campus.





Students joining our School of Arts, Media and Creative Technologies also supported our green campus with a tree planting event as part of their induction activities. Together with our partners at City of Trees, students from our Fashion, Image and Making Studies course planted over 200 trees on our David Lewis Playing Fields site. Planting the trees gave the students an opportunity to work together, to get to know each other and the campus, and feel like part of the community by contributing towards enhancing our local green spaces in a tangible way. It was also a chance for them to spend time in nature which has been shown to have numerous benefits for both physical and mental health.



## Communication and Engagement

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In addition to improvements on campus we also continue to use our teaching, learning, research, and influence to support a sustainable future. This year, as a member of the COP26 Universities Network we worked collaboratively with our partners to ensure the academic sector had a strong voice for tackling the climate crisis prior to, and during United Nations International COP26 in November 2021.

Salford's Energy House Laboratories and the IGNITION Living Lab were featured as part of a Climate Innovation Showcase which was available online and in person at The Ramshorn in Glasgow throughout COP26. During COP26 itself, the University held a series of live online events, led by Professor Andy Miah, highlighting, and engaging with students, colleagues and the community on a range of climate related topics.

Here at Salford, we recognise that the topic of the global climate crisis must continue, and we have a major role to play in enabling our colleagues and students to respond positively. We continued the conversation throughout our Go Green Salford month of engagement activities in February and March 2022. Go Green Salford 2022 included a number of student-led activities including a swap shop, wildlife surveying and live events on social media.

We relaunched the Green Impact scheme at the University this year enabling staff and students to get more involved in sustainable actions and continue to collaborate with partners within and external to the University. For example, colleagues in our Maker Space, School of Arts, Media & Creative Technology, School of Science, Engineering and Environment, Business School and Arts Collection as well as external partners such as Friends of Peel Park, Salford Climate Action Board, Salford Ranger Team and Salford Museum and Art Gallery.

We have also continued our work with the local community, which aims to provide opportunities for students and staff to volunteer, get to know our local natural environment, and benefit from spending time outdoors, while integrating our University even further into the Salford community. There are two main groups we have been working with. The first one is the Salford Ranger Team, particularly the Peel Park Ranger; we have collaborated on activities in and around Peel Park, such as community gardening, litter picks, and tours of the Salford Tree Trail. Another group, Growing Togetherness, is based a little further down the road, in Buile Hill Park. They have provided our students with opportunities to get involved in inter-generational, community-led activities including gardening, nature-themed crafts, and outdoor sports, while also helping us organise sessions at the campus-based Community Growing Space.

## Teaching, Learning and Research

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Our world leading work to reduce the carbon footprint of the built environment reached a major milestone with completion of Energy House 2.0 (EH2.0) in February 2022. As the largest test and research facility of its type, EH2.0 can accommodate two detached houses in each of its two environmentally controlled test chambers. The EH2.0 team have already assisted over 150 local

small and medium-sized enterprises (SMEs), providing them with technical support and access to facilities to further their development of low carbon/energy efficient products.

We have welcomed over 2000 visitors representing a wide range of public and private sector organisations including civic leaders and the Chairman of the UK's Committee on Climate Change. Extensive media coverage of our expertise has raised the profile of key issues such as energy efficiency, retrofit, fuel poverty and how our research is contributing to net zero.

In late 2021, Barratt Developments, the UK's largest housebuilder, has revealed a unique flagship zero carbon home concept called the Z House located at the University of Salford. The house will be occupied and monitored to assess its performance using the research and expertise of the University's Energy House Laboratories. It will be the first new home in the country built by a major housebuilder to go beyond the new Future Homes Standard by delivering a carbon reduction of 125%.

Following three years of innovative research, the €4.5 million EU funded IGNITION project, which the University of Salford is a partner, continues to establish community-scale nature-based solution projects in the region.

Since 2019, the IGNITION project has explored nature-based solutions (NBS) such as green walls, street trees, rain gardens and sustainable draining systems to uplift green infrastructure in Greater Manchester and develop viable business models for investment into these technologies. Central to this is the IGNITION Living Lab located at the University's main campus, which has provided a robust case for the need for retrofit installations as a means of providing vital mitigation against the effects of climate change.

IGNITION has worked with 12 industry partners, including United Utilities and the UK Environment Agency to take steps to tackle socio-environmental challenges such as flooding, water security, air quality, biodiversity and human health and wellbeing through the use of NBS.

The project has been a huge success, welcoming over 600 Living Lab tour attendees and over 6700 visitors to the virtual lab tour, as well as showcasing the initiative across 243 events.







# Appendix A



## Environmental Sustainability Performance



| Objective                                                                     | Key Performance Indicator                                                      | Baseline year     | 2019-20                | 2020-21                  | 2021-22                   | Target/date                                    | Performance 2021/22 |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------|------------------------|--------------------------|---------------------------|------------------------------------------------|---------------------|
| <b>Environmental Management</b>                                               |                                                                                |                   |                        |                          |                           |                                                |                     |
| Maintain ISO 14001 and ISO 50001 certification                                | ISO 14001 and ISO 50001 certification                                          | N/A               | Achieved certification | Maintained certification | Achieved re-certification | Maintain certification                         | Achieved            |
| Reduce pollution risk (emissions & discharges) to land, water and groundwater | Number of pollution incidents                                                  | N/A               | 0                      | 0                        | 0                         | 0 annually                                     | Achieved            |
| Maintain compliance with environmental legislation and other requirements     | Number of major non-conformities related to a breach in compliance obligations | N/A               | 0                      | 1                        | 1                         | 0 annually                                     | Not Achieved        |
| <b>Energy, Water &amp; Carbon</b>                                             |                                                                                |                   |                        |                          |                           |                                                |                     |
| Net Zero by 2038                                                              | % reduction of scope 1 and 2 carbon emissions                                  | 2005/06 19,095t   | -70                    | -71%                     | -71%                      | 81% reduction by 2030<br>Net Zero by 2038      | On Track            |
| Improve energy efficiency                                                     | kWh energy consumed per m2 gross internal floor area                           | 2016/17 212kWh/m2 | 165 kWh/m2             | 169 kWh/m2               | 185kWh/m2                 | 155kWh/m2 by 2030                              | Behind Schedule     |
| Reduce water consumption                                                      | L of water used per staff & student FTE (% reduction from baseline shown)      | 2018/19 3.55L/FTE | -17%                   | -52%                     | -11%                      | NEW target 20% reduction by 2025 from 2018/19  | Behind Schedule     |
| <b>Waste Management</b>                                                       |                                                                                |                   |                        |                          |                           |                                                |                     |
| Reduce waste disposal                                                         | % reduction in waste from baseline                                             | 2018/19 661t      | -43%                   | -65%                     | -42%                      | NEW target: 12% reduction by 2025 from 2018/19 | Achieved            |
| Increase waste recycled                                                       | % waste recycled                                                               | 2016/17 38%       | 39%                    | 44%                      | 47%                       | New target: 65% by 2025                        | On Track            |
| Eliminate avoidable single use plastics                                       | Number of avoidable single use plastics removed                                | 2019/20           | N/A                    | Data not available       | Data not available        | Zero by end 2022                               | Not Achieved        |

| Objective                                                                                                                                                                                            | Key Performance Indicator                                                                      | Baseline year    | 2019-20             | 2020-21             | 2021-22              | Target/date                                                                        | Performance 2021/22 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------|---------------------|---------------------|----------------------|------------------------------------------------------------------------------------|---------------------|
| <b>Sustainable Procurement</b>                                                                                                                                                                       |                                                                                                |                  |                     |                     |                      |                                                                                    |                     |
|  Develop and embed sustainable purchasing policy in Estates                                                         | Flexible Framework Self Assessment<br>All Estates tender evaluations to include sustainability | 2016/17          | 65% complete        | 65% complete        | 65% complete         | Meet level 4 in all areas of the Flexible Framework                                | Behind Schedule     |
| <b>Sustainable Construction</b>                                                                                                                                                                      |                                                                                                |                  |                     |                     |                      |                                                                                    |                     |
|  Ensure sustainability considered within construction through implementation of the sustainable construction policy | % of construction projects meeting sustainable construction policy requirements                | 2018/19          | 100%                | 100%                | 75%                  | 100% of construction projects meeting sustainable construction policy requirements | Not Achieved        |
| <b>Travel &amp; Transport</b>                                                                                                                                                                        |                                                                                                |                  |                     |                     |                      |                                                                                    |                     |
|  Improve facilities for cyclists on campus                                                                          | Number of cycle parking spaces                                                                 | 2016/17<br>410   | 410                 | 362                 | 379                  | 500 cycle parking spaces on campus by end 2023/24                                  | Behind Schedule     |
|  Support use of Electric Vehicles by staff and students                                                             | Number of Electric Vehicle charge points on campus                                             | 2016/17<br>6     | 6                   | 5                   | 9                    | Increase number of EV charge points on campus by 2025                              | Achieved            |
| Increase use of Electric Vehicles on campus by Estates                                                                                                                                               | % Electric Vehicles in estates fleet                                                           | 2016/17<br>0%    | 0%                  | 19%                 | 41%                  | 20% of Estates fleet by end 2025                                                   | Achieved            |
| <b>Community Engagement</b>                                                                                                                                                                          |                                                                                                |                  |                     |                     |                      |                                                                                    |                     |
|  Increase influence of Green Impact at the University                                                              | Number of staff/students influenced in Green Impact                                            | 2016/17          | Programme deferred  | Programme deferred  | Programme relaunched | Increase in number of staff/students influenced                                    | On Track            |
| Increase engagement with staff and students at the University with sustainability                                                                                                                    | Number of staff/students engaged with sustainability campaigns & events                        | 2019/20<br>1,378 | 1,378               | 1,499<br>+9%        | 3276<br>+119%        | Increase in number of staff/students engaged                                       | Achieved            |
| <b>Biodiversity</b>                                                                                                                                                                                  |                                                                                                |                  |                     |                     |                      |                                                                                    |                     |
|  Maintain Green Flag Award                                                                                        | Green Flag Award                                                                               | 2018/19          | Green Flag Achieved | Green Flag Achieved | Green Flag Achieved  | Maintain Green Flag Award annually                                                 | Achieved            |