

THE SUSTAINABILITY DEVELOPMENT POLICY TO 2033 AND BEYOND

Sustainability will shape TUIT's plans and activities at all levels and across all campuses. Our ambition to ensure that as well as TUIT leading the country on science and policy for sustainability, we also embed sector-leading sustainable practice throughout our research, teaching and operational activities. This ambition is captured in our vision: to advance our sustainability research and education, and to apply what TUIT excels at to our own activities and to the new challenges facing the world. Our strategy brings together the work underway in estate infrastructure, research and teaching through a single framework for sustainability. Goals will guide our action to 2033 and beyond, and ensure that we maximise the University's contribution to the country's and UN's Sustainable Development Goals.

Our overall, long-term goal is to be a sustainable and net zero carbon institution by 2040. In addition, we anticipate that at the end of this current ten-year strategy, this date will be brought forward as we achieve efficiencies within the University and take advantage of the evolving energy landscape in the Uzbekistan. Our overarching responsibility is to manage the impact of the decisions we make such that they are neither detrimental to the environment nor to society, and still enable the University to thrive in the future.

Clear priorities for action for both the University community and our stakeholders emerged from our findings. These are that:

- the complex interplay between climate change, energy generation and human activity requires long-term coordinated planning by the University;
- we monitor the use of all our resources and use them efficiently to minimise waste;
- sustainability is integral to the University's decisions on the procurement of buildings, services, travel and equipment;
- we ensure that all teaching and research is carried out in a sustainable way;
- students are equipped with sustainability skills and knowledge for the future;
- governance, management and resourcing of sustainability, including our approach to investment, is at the forefront of the House of Mercy plans and ambitions.

Sustainability's 'social dimensions', including human rights, diversity and inclusion are integral to our activities.

Our Goals

Demonstrate sustainability in practice

We will transform our campuses, bringing sustainability principles to bear in our decision-making and investment in buildings, grounds, transport, procurement and partnerships. We will showcase TUIT's research in action, turning our campuses into testbeds for sustainability. Underpinning this goal is our commitment to operate responsibly, including our approach to governance, communications and investment for sustainability.

Finding sustainable solutions together

We will build on our extensive sustainability curriculum to ensure that all University students can access the skills and knowledge they need to lead positive change. We will reshape our research portfolio, with a growing focus on the science, technology and policy solutions needed for a just and equitable transition to a sustainable net zero carbon society. We will empower our external stakeholders and the wider public to find and implement sustainable solutions together.

In the pages that follow, we set out our plans, within the framework of three themes, that collectively will deliver our strategic priorities.

Our three themes are:

- Resource Management
- Academic Excellence
- Engagement

We are constantly evolving our Strategy, and expect to add further activities, science-based targets and measures as our work as an institution gathers further momentum in this area. Please get in touch if you have any comments or suggestions, or would like to contribute to the work, on sustainable@tuit.uz.

RESOURCE MANAGEMENT

Responsible management of resources is integral to University's aims of achieving a sustainable, healthy, resilient and smart society. Our campuses should also reflect this vision for society, providing a clean and healthy environment in which the wellbeing of our staff and students is a priority.

We are committing to generating science-based targets and improvements in all areas, from energy use, water management, waste reduction and catering, to active travel, sustainable procurement and biodiversity.

With these commitments built into the University's wider mission, all our staff and students will not only be aware of the changes they can make as individuals, but also be enabled to make these changes as part of the University community to create a sustainable future.

Underpinning these commitments is our aim to create a shared vision for sustainability. We will achieve this not only through governance and management, building capacity, and demonstrating leadership by example, but also by empowering and inspiring our community and facilitating change within all levels of the University.

ENERGY USE

Aim: To achieve carbon neutrality for Scope 1 and 2 emissions by 2040, minimising Scope 3 emissions where possible, while at the same time ensuring that the University continues to provide world class facilities to support its overall strategy of achieving enduring excellence.

- reduce total Scope 1 and 2 carbon emissions arising from energy consumption by 15% by 2028–30 against the baseline year 2022–23;
- assess the options available to increase on-campus renewable energy generation;

- undertake work to establish science-based targets to be used across all campuses;
- improve the control of all building infrastructure and energy use and enhance data gathering through our building management systems;
- continue to upgrade and enhance existing building services infrastructure to improve sustainability and energy performance;
- identify and seek funding for building fabric improvement such as façades, glazing and insulation that are more efficient and will effect the reduction of energy consumption.

Measures of progress: Reduction in total carbon emissions from energy use:

- Total (tonnes CO₂e); by staff and students (tonnes CO₂e/FTE);
- By total income (tonnes CO₂e/£);
- By building area (tonnes CO₂e/m²).

WASTE MANAGEMENT

Aim: To ensure the responsible management of all waste streams arising from our activities, using innovative solutions to reduce our consumption of single-use items, to reuse materials and recycle waste produced as much as possible.

We will:

- reduce waste sent to landfill from all University sources by being efficient in use of our resources and in reusing and recycling unwanted materials;
- investigate further the reduction, reuse and recycling of varied materials used in laboratories that are currently sent to landfill or for incineration;
- increase the use of WARPit to reuse University equipment and furniture;
- promote student recycling schemes for unwanted bedding and other items to be given to charities.

Measures of progress:

- Reduction in total amount of various wastes sent for recycling compared to waste going to general landfill (tonnes per year);
- Reduction in emissions from our waste related activities (tonnes of CO₂e per year);
- Increase in number of equipment and furniture reuse transactions via WARPit, waste and emissions saved (tonnes waste/CO₂e per year);
- Increase in quantity of food, bedding and other unwanted goods collected from students for donation to charity (tonnes per year).

WATER MANAGEMENT

Aim: To ensure the responsible management of water resources, reducing our consumption and preventing pollution of the natural environment.

We will:

- work to reduce total and per person water consumption and continue to use the Uzbekistan government's policy to carry out detailed audits of our water use;
- install water control devices and more automated meters to better understand trends in water usage and to enable benchmarking, monitoring and target-setting;

- trial alternative equipment that does not rely on water in laboratories, for example waterless condensers;
- increase the use of recirculating coolant systems in laboratories and enhance building infrastructure to enable water savings to be made;
- install gray water and rainwater harvesting systems where possible.

Measures of progress:

- Reduction in total University use of water (m³ per year);
- Reduction in water usage per person (m³ per year).

SUSTAINABLE PROCUREMENT

Aim: To use our influence with our suppliers and partners to procure environmentally-friendly supplies and services, to reduce consumption and, where possible, purchase goods and services which may be manufactured, used and disposed of in an environmentally-responsible way.

We will:

- develop appropriate metrics to measure progress in influencing our suppliers and partners to procure environmentallyfriendly supplies and services;
- assess all potential suppliers on their environmental policies such as BS7750, EMAS and ISO 14001, and continually monitor our major suppliers on their environmental policies and practices;
- work with major suppliers to develop and share, where appropriate, environmental policies and minimise the supplier base to reduce the University's carbon footprint;
- support staff to understand the environmental impact of purchases, considering the whole life cycle cost of equipment and services.

Measures of progress: Increase in percentage of purchases from environmentally responsible suppliers.

SUSTAINABLE CONSTRUCTION AND REFURBISHMENT

Aim: To consider sustainability at all stages of refurbishment and new building planning, and to work with architects and contractors to minimise the environmental impact of construction.

We will:

- design buildings and infrastructure with low-cost, low-frequency maintenance and easy access to space, plant and equipment;
- optimise passive design features, such as increasing daylight and natural ventilation and reducing heating and mechanical cooling, and increase the wellbeing of students, staff and visitors through improved building design;
- maximise low and zero carbon technologies such as solar photovoltaic and ground source heat pumps;
- carry out life cycle cost analysis of construction and refurbishment on all projects to ensure that sustainability considerations are taken into account;

Measures of progress:

- External awards for sustainable construction and design;

- Improvements in building energy efficiency.

CATERING

Aim: To work with our suppliers to ensure that food and drink are sourced responsibly, food miles are minimised and the effects on the wider environment are taken into account, and to increase consumer awareness of the environmental impact of food and drink.

We will:

- work to develop and implement a sustainable food policy;
- use innovative menus and promote meat-free meals to reduce the amount of meat used in University catering;
- work with our suppliers to reduce the use of unsustainable catering supplies;
- continue to replace plastic and single-use items throughout catering operations, for example by continuing the disposable cup levy;
- introduce more water fountains and encourage the use of refillable drinks containers.

Measures of progress:

- Reduction in plastic and single-use items used and sold through University catering outlets;
- Reduction in waste produced from catering operations;
- Reduction in amount of meat used in University catering;
- Reduction in amount of palm oil used from non-sustainable sources.

TRAVEL

Aim: To promote climate conscious travel among staff and students in order to reduce the environmental impact of University-related travel.

We will:

- develop a sustainable travel policy by 2025;
- provide staff and students with innovative virtual and video conferencing tools to advance collaboration and increase conference participation, while reducing the need to travel;
- develop appropriate mechanisms to encourage less air travel (such as a carbon tax or frequent flyer levy) and mitigate some of the impact of necessary air travel (for example by carbon offsetting), taking care that reductions in aviation emissions are distributed fairly across the TUIT community;
- provide incentives for low-carbon travel, for example participating in the government's Cycle to Work Scheme and permitting slow travel days for greener modes of transport;
- improve data collection on staff and student travel, particularly by air, to benchmark and develop accurate targets for the future;
- promote the use of public transport and active travel to and from campuses, including improving cycle facilities, and engage with local councils to identify opportunities for improvements to active transport options between and around our campuses;
- replace existing University petrol or diesel vehicles with electric or hydrogen alternatives where possible for use on campus and between campuses;

- introduce solutions to enable University members to move from being owners to being users of the means of transport;
- reduce the number of vehicles on campus as far as possible and increase electric vehicle charging points for staff and visitors.

Measures of progress:

- Reduction in carbon emissions from air travel by 25% by 2026 against the baseline year 2023–23 (tonnes of CO₂e per person per year);
- Increase in sustainable modes of commuting both to and from University and between campuses (methods for assessing per capita carbon emissions from air travel and travel surveys are being investigated by the University to enable more detailed KPIs to be developed).

ACADEMIC EXCELLENCE

Our goals to demonstrate sustainability in practice and share our learning with the world focus us on the impact of teaching and research – the ‘handprint’ of TUIT that goes well beyond our operational footprint. Capturing and reporting the progress we are making through our core activities is more complicated, but our aim is to be more systematic and effective in harnessing the great research and teaching that goes on at the University in the quest for solutions to the challenges ahead.

The University’s Learning and Teaching Strategy sets out our commitment to ensuring that an TUIT education is recognised as globally outstanding in the fields of science, engineering, medicine and business, with a focus on the skills needed to address current and future global challenges. Our portfolio of sustainability courses is designed to equip our students with the knowledge and understanding to become leaders in their fields. We now plan to build on this foundation by making knowledge and skills for sustainability increasingly central to all learning at TUIT.

Tackling global challenges TUIT pioneering research in sustainability is helping to shape a cleaner future for all. Through our highly-collaborative and multidisciplinary approaches, the TUIT contributes significantly to the science, policy and innovation guiding the transition to a more sustainable society. From fundamental discoveries about our planet’s climate system, to development of low-carbon technologies, the groundbreaking research undertaken in our faculties, centres and networks will allow us to develop new insights and knowledge to help make sustainable change. The Energy Systems Lab is another of our institutes which aims to tackle major sustainability challenges by promoting energy innovation and advancing systemic solutions for a sustainable energy future. All these efforts bring together the science, engineering, medicine, business and policy expertise at the University and foster collaboration with a wide variety of external partners.

Teaching the leaders of the future

We know students are looking for a better understanding of the many challenges we face and of the solutions coming on-stream, many of which are being developed through our own research. A growing number of students recognise that sustainability questions will dominate their careers, whatever professional path they take – including those destined for leadership roles in industry, the public sector and civil society. We will respond to student and societal needs both by building sustainability into the curriculum and increasing the number of sustainability courses. This will also provide access to relevant modules and courses to all students, and increase our focus on the skills required to lead and drive change.

Our diverse offering of courses includes the BSc in Ecology which enables students to focus their study on important ecological and environmental topics such as climate change, biodiversity and conservation. We are also training future leaders in the sustainability field through courses such as our MSc in Sustainable Energy Resources The application of scientific knowledge, policy and engineering to solve environmental problems and address sustainability is also a focus of our MSc in Energy engineering, through which students acquire a diverse range of discipline-specific problem-solving frameworks for tackling contemporary environmental issues. These specialist courses are complemented by a wide range of undergraduate and postgraduate opportunities to learn more about sustainability through additional module options.

RESEARCH FOR SUSTAINABLE DEVELOPMENT

Aim: To expand sustainability and climate change research, helping societies to become healthier, smarter and more resilient.

We will:

- continue to drive the sustainability and climate change agenda through our research;
- foster collaboration between operational and research-led activities to develop our campuses as 'living labs', applying research to our everyday operations;
- facilitate network-building across our research community in the field of sustainability and climate change;
- expand our portfolio of research and innovation activities that have a positive environmental impact.

Measures of progress:

- Increase in number of researchers engaged in projects related to sustainability and climate change;
- Increase in funding for our portfolio of research in sustainability and climate change.

EDUCATION FOR SUSTAINABLE DEVELOPMENT

Aim: To provide all students with learning opportunities to develop their understanding of sustainability and equip them with the skills and resources needed to apply their learning to contribute to a more sustainable society.

We will:

- continue to be have a positive impact on society through our education;
- train future leaders in sustainability and equip our students with the resources to act sustainably;
- review the current curricula (with support from programme and module leads) to suggest ways to incorporate more sustainability and action on climate change;
- incorporate sustainability into induction programmes for every new student and member of staff;
- engage with alumni in positions of impact related to sustainability and climate change;
- review teaching laboratory infrastructure and operations to make them more sustainable, e.g. by reducing solvent use;
- develop the leaders of tomorrow, ensuring they have the knowledge and skills they will need to drive change for a better world.

Measures of progress:

- Increase in number of departments to have an Education for Sustainable Development curriculum plan to incorporate more sustainability into their modules and degree programmes;
- Increase in number of courses and departments that have sustainability integrated into inductions and throughout the degree course;

- Increase in number of TUIT alumni driving sustainability via senior positions in business, government and civil society

WORKING WITH OUR UNIVERSITY COMMUNITY

Aim: To engage the TUIT community of staff and students in improving the environmental and social impact of the University.

To promote knowledge exchange and best practice by building capacity across all departments, and encourage all students and staff to embed sustainability practice in all their activities.

We will:

- establish diverse and inclusive networks of staff and students, such as a Sustainability Champions Network;
- continue to hold an annual Sustainability Week to showcase current activity and to provide staff and students with the knowledge to enable them to act more sustainably at work and home; ● provide all staff with training to equip them with the skills to have a positive impact on the environment;
- provide regular communications to our community about current initiatives, strategy development and practical guidance to bring about positive change and contribute to a more sustainable society;
- work with TUIT University Union to support the development of engagement activities for our students;
- continue to engage TUIT alumni in our sustainability work;
- create open and welcoming campus environments.

Measures of progress:

- Number of staff and students attending sustainability training and events;
- Impact of staff and students actively participating in sustainability networks and initiatives to create more environmentally-friendly campuses.