



UNIVERSITY of STRATHCLYDE
**CENTRE FOR
SUSTAINABLE
DEVELOPMENT**



SUSTAINABLE
DEVELOPMENT
GOALS

Our Mission

Embrace an integrated and equitable approach to teaching, research, and innovation to co-create solutions with our global partners across academia, civil society, and the public and private sectors, to secure real world impact and to tackle the United Nations Sustainable Development Goals (SDGs).



Our Guiding Principles

The University's Strategic Plan, Vision 2025, puts sustainability at its heart and makes a clear commitment to deliver against the SDGs across all areas of activity, including research, teaching, knowledge sharing and operational activities.

The Strathclyde Centre for Sustainable Development aims to bring a coherence to our global socially progressive vision. In keeping with the principles of the UN SDGs, the Centre seeks to foster collaboration and equitable partnerships to ensure that no one is left behind, particularly building on our excellent track record and relationships with industry. As global citizens we will design our solutions to be appropriate to each distinct context, recognising the global interdependencies of economic and social development, and environmental protection. We shall be cognisant of the rapid changes and impacts of COVID-19 on global and national challenges and on all our activities.



We will be outward-looking in all our work by:

- Being a contributor to, and a beneficiary of, global thinking and progress through high-quality inter-disciplinary scholarship, engagement and advocacy;
- Applying learning from across the globe to benefit our educational, research, knowledge sharing and operational work, and contributing maximally to the advancement of global society;
- Being sensitive to the wide range of global cultures and contexts; with a key concern for the most vulnerable in every society;
- Embracing the complex interactions and inter-dependencies of the challenges captured in the SDGs, and to collaborate across disciplines to add value and impact to our work;
- Staying alert to the rapidly changing global context, especially as the full impact and implications of the COVID-19 crisis are better understood;
- Embracing and promoting the concept global citizenship across all of our activities.

We will champion new partnership working across all society by:

- Working equitably and inclusively with local, national and international partners;
- Co-creating and evaluating our activities together with our partners across all stages of work to ensure context appropriateness, best use of expertise and insight, equity and sustainability;
- Benefiting from, and contributing to our partners' work on sustainable development, with a particular focus on engaging more intensively with our corporate partners and those in the Global South, while continuing to build new relationships across all sectors and regions;
- Promote a culture of sharing and learning that allows people to talk openly about the fundamental challenges to progress and about when things go wrong.

We will apply an integrated model to our work, combining education, research and knowledge sharing by:

- Underpinning all our education and knowledge sharing with the highest quality research and evidence;
- Being demonstrably inter-disciplinary in all our work, drawing on all the expertise across and beyond the university;
- Developing current and future SDG implementors to support global economic and social development, and environmental protection.

Our Key Activities



Our Activities will embrace a range of priorities, summarised here:



EDUCATION AND AWARENESS RAISING

- Promoting internal awareness and understanding of sustainable development with both staff and students.
- Continue to build our suite of educational programmes targeted at students and young people.
- Supporting staff to align their existing work with SDGs.
- Support Postgraduate and Executive Education programmes.

CAPACITY BUILDING

- Build a community of sustainable development expertise and methodologies in education, research and knowledge sharing across the University.
- Share this expertise both internally and externally.
- Support broader learning both internally and externally, relating to partnership formation, preparation of funding applications, programme management, governance, programme management, governance and public engagement.



RESEARCH

- Supporting the co-creation, implementation and evaluation of research which supports sustainable development.
- Identification of significant funding and training opportunities to support research and education that prioritises the SDG goals and targets.
- Promote inter- and transdisciplinary approaches to ensure engagement with partners and beneficiaries throughout the life cycle of the research.

INTERNATIONAL PARTNERSHIPS

- Engage with existing networks, funding bodies, and groupings to learn, support and contribute to the work on sustainable development.
- Work with International Partners where there are opportunities for educational and research engagement.
- Build partnerships with Global South partners and global companies around specific programmes and projects, and for broader learning objectives.



KNOWLEDGE SHARING AND THOUGHT LEADERSHIP

- Make a positive contribution to Sustainable Development globally by promoting our outcomes and expertise to partners, the academic community, the major international organisations, NGOs, the private sector, the public and policy makers with open access resources through social media activity, MOOCs and other publications as well as personal engagement.
- Capturing and raising the profile of SDG-related work across the University.
- Contribute to a culture shift in the approach to international development work by sharing and promoting our distinct Strathclyde methods and resources.
- Promoting dialogue on challenges and failures in Sustainable Development.
- Actively engage with, and listen to the voices of, students and young people with regards to sustainable development.



Sustainable Development

Strathclyde in Action

SDG-focused activity permeates all areas of the University, including research, knowledge sharing and educational projects undertaken by staff across all four faculties, as well as Estates Services, Professional Services, Student Union, Marketing and Communications. These clearly demonstrate the many perspectives of sustainability and the breadth of the University's contribution to these distinct elements.



One Ocean Hub



We are entirely reliant upon the ocean. The ocean produces half the oxygen we breathe, absorbs over a quarter of global carbon dioxide, and contributes to freshwater renewal. Entire countries and numerous communities depend on the ocean for food, work, livelihoods, culture and spirituality.

Over-exploitation and multiple competing uses, pollution and climate change, however, are pushing ocean ecosystems towards a tipping point. Current solutions are disconnected across sectors and levels, and from those most affected by ocean degradation.

The One Ocean Hub aims to transform our response to the urgent challenges facing our ocean. Its research seeks to bridge current disconnections in law, science and policy and integrate governance frameworks to balance multiple ocean uses with conservation. It strives to empower the communities, women and children, most reliant upon the oceans, to inform decisions based on multiple values and knowledge systems. The aim is to predict, harness and share equitably environmental,

socioeconomic and cultural benefits from ocean conservation and sustainable use. The Hub will also identify hidden trade-offs between more easily monetized fishing or mining activities and less-understood values of the ocean's deep cultural role, function in the carbon cycle, and potential in medical innovation.

The Hub specifically addresses the challenges and opportunities of South Africa, Namibia, Ghana, Fiji and Solomon Islands, and will share knowledge at regional (South Pacific, Africa and Caribbean) and international levels. The One Ocean Hub is led by the University of Strathclyde with 24 research partners, and 35 project partner organisations.

This Hub is funded by UK Research and Innovation (UKRI) through the Global Challenges Research Fund (GCRF) - which is a key component in delivering the UK AID strategy and puts UK-led research at the heart of efforts to tackle the United Nations Sustainable Development Goals.

For more information on the One Ocean Hub visit [here](#).



Sustainable Energy

Sustainable energy is often described as the golden thread that links most of the SDGs, with a pledge to leave no one behind. However, in 2020 it is estimated that 789 million people globally still lack access to electricity and over a third of the world's population (2.8 billion people) are unable to cook cleanly and safely. For over 10 years the [EEE Energy for Development Research Group](#) has been working with international partners to address this challenge. Working mainly in [Malawi](#) but with initiatives in The Gambia, Rwanda, Zambia

and Kenya our action research and knowledge exchange focuses on needs-based design of appropriate technology and sustainable business models for improving energy access for those most in need. Our work directly supported the development of Malawi's Renewable Energy Strategy, the group led the Malawi Renewable Energy Acceleration Programme (2012-2015) – which improved electricity access for nearly 80,000 people – and continues this work through the Rural Energy Access Through Social Enterprise and Decentralisation project (2018-2023). The long-standing relationships we have developed with academic, NGO, industry and community development partners direct our research activities as we collaborate on building the evidence base to direct innovation. Our current project portfolio includes: [provision of sustainable rural energy access through solar microgrids](#), promoting social and economic development through productive uses of energy, capacity building and advocacy for energy issues across the public and private sectors, and [accelerating the transition towards modern energy cooking](#).



Vertically Integrated Projects for Sustainable Development

Our Internationally acclaimed and award winning [VIP4SD](#) programme comprises a number of multidisciplinary projects working across all four of Strathclyde's faculties, bringing together students from different levels of study and disciplines to work in partnership with staff on research projects that address the UN Sustainable Development Goals (SDGs). The programme is embedded within Strathclyde curricula, meaning students gain academic credits while working to address real-world problems through their collaborative projects. This enables students to gain the competencies required to tackle complex global challenges. The VIP4SD programme is an exemplar of Research-Based Education for Sustainable Development (ESD), and evidence of Strathclyde fulfilling its commitment to embed ESD in its curricula.

The VIP model facilitates students from different year groups working together on research-based projects over a number of years, meaning students are able to build upon their own research and that of their peers while working alongside them as they progress through their degree programme. Projects bring together students from multiple disciplines, are aligned with the UN SDGs in recognition of Agenda 2030.

Our projects have achieved wide-ranging impact, for example:

- Water, Sanitation and Hygiene (WASH) (SDG 6) has developed low-cost water pumps and a database and GIS tool for the identification and assessment of well sites across Malawi
- TextLab (SDG 4) has developed a website designed to introduce school pupils to Shakespeare's language and STEM through digital methods for text analysis. The work from the project has also been influential in productions of Shakespeare's plays at The Globe, London.
- Drug Discovery (SDG 3) has developed new techniques to discover new antibiotic producing organisms using hyperspectral imaging. The team have identified a number of novel bacterial strains that have the potential to make new antibiotics.
- Energy for Development (SDG 7) has developed minigrad design tools and remote monitoring systems for off-grid energy in The Gambia and India.

At programme level, VIP4SD won the [2020 International Green Gown for Student Engagement](#) in a Large Institution. Established as the most prestigious recognition of sustainability best practice within the education sector globally, the International Green Gown Awards provide benchmarks for excellence and are aligned with the UN SDGs.

Perspectives on SDGs

As part of the University's commitment to enhance students' awareness and understanding of the challenges of sustainable development, a credit-bearing module called Multidisciplinary Perspectives of Sustainable Development was launched in 2020. The module is distinctive in being delivered by academic staff across all four faculties: Engineering, Humanities and Social Sciences, Science and Strathclyde Business School, who present different disciplinary perspectives on the challenges expressed in the UN's Sustainable Development Goals. The module is available as an elective to all undergraduate students at the University. The class introduces students to the UN's 17 Sustainable Development Goals, and explores in depth multidisciplinary perspectives of responding to the challenges of four specific goals, namely: SDG 3 Good Health and well-being, SDG 7 Affordable and Clean Energy,

SDG 10 Reduced Inequalities, and SDG 13 Climate action. Through focused study of the SDG agenda and these four SDG, students gain an understanding of the different ways in which various disciplines contribute to addressing these challenges. The pedagogical design of the module aligns to [UNESCO's Education for Sustainable Development Learning Objectives \(2017\)](#) so that students have the opportunity to develop the skills UNESCO say are essential for addressing the goals. This includes the development of socio-emotional skills, including reflective skills and the ability to collaborate with, and communicate effectively with, students from other disciplines. Students are also encouraged to see the overlap between the SDG and how addressing one SDG can facilitate or hinder progress on achieving the targets of another SDG. It is anticipated that this module will be one of a series of modules, each focussing in depth on different SDG.



Inspiring Children's Futures

Children are thirty percent of the world's population. In many countries, over half of the population is under the age of eighteen. Yet, while the sustainable development agenda pledges to leave no one behind, there is a stark gap when it comes to measuring, understanding, and - most critically - fulfilling this global ambition for children.

COVID-19 compounds this gap, which has abruptly thrust the rights and wellbeing of children and families into greater risk around the world. While all are working to manage the impact of COVID19, in the process we may risk overlooking its impact on children facing the greatest adversities. Minimising the negative impact of the COVID19 emergency on children will be critical to realising children's rights, as well as to the long-term societal and global recovery and resilience.



With a strategic vision that actively puts children at the centre, affirms human rights, and is aligned with the SDG agenda, [Inspiring Children's Futures](#) supports progress on SDG 16 in three ways:

- firstly, by increasing available evidence (for example leading a global Smartphone App to seek 'real time' practitioners' and policy-makers' experiences of supporting children's well-being during COVID-19);
- secondly, by informing better policy and practices (for example, leading the Justice for Children, Justice for All global project Call to Action to better respond to children's distinct needs, and realise their full range of rights and opportunities; and informing international Inter-agency Task Forces' COVID-19 policy guidance on child protection, alternative care and youth justice); and
- thirdly by identifying ways in which authorities can achieve change to strengthen global, national and local responses for children (for example, developing with the OECD a national framework to prioritise children's well-being in what is anticipated to be a period of acute economic pressure, following COVID-19).



Research and knowledge sharing

Health in Malawi

Contributing to the evidence base needed to improve health services has been a key focus of our long-standing work in Malawi. The provision of basic health services to rural and urban populations through community health is essential to improving health and livelihoods in low- and middle-income countries (LMICs). It is also integral to the attainment of the UN Sustainable Development Goals (SDGs). However approaches to preventative health have often been over-simplified, focussed on hardware provision, with no appropriate consideration of context, community needs and priorities. With a focus on environmental health approaches to community based preventative health, we have been working with partners in Malawi for over 20 years, examining, understanding and building context appropriate, behaviour centred interventions for community health, water, sanitation and hygiene.

Since 2006 we have run a series of successful trials ([Chikwawa Health Initiative](#) 2006 – 2016; [Hygienic Family](#) 2015- 2020), co-developed, implemented and evaluated with the government, third sector and academic partners. These have supported improvements in community health structure, demonstrated significant reductions in diarrhoeal disease and achieved improvements in hygiene behaviours. As such, we have seen our toolkits scaled up for national roll out in Malawi (Village Health Committee Training programme), adopted by third sector and government in the fight against diarrhoeal disease and COVID-19 (Hygienic Family project) and embedded in national strategies (National Community Health Strategy 2017 – 2022; National Sanitation and Hygiene Strategy 2018 – 2024).

Our work in Malawi continues to be based on in-country needs and evidence gaps to help achieve UN SDG indicators by 2030.



Climate Change and Social Responsibility

The University's Climate Change and Social Responsibility Policy (CCSR) is structured around four aims:

- Tackle climate change and reduce resource use
- Be socially responsible
- Collaborate with others to embed sustainability across the institution
- Share learning and knowledge to help ensure continuous improvement

Net Zero Trajectory

In addition to our CCSR Policy, the University Vision 2025 Strategy sets out our commitments in delivering net zero emissions by 2040 or sooner with an ambitious and bold set of intermediate milestones – a 70% reduction by 2025, and an 80% drop in emissions by 2030. The commitments also focus on shaping climate change policy, adapting to the changing climate, undertaking research and innovation activity, and upskilling our students, as well as responding to the UN Sustainable Development Goals. These commitments are inextricably linked to our overall mission and vision, and to our drive towards net zero. Operationally this means a significant upshift in our emissions reductions plans and to meet this challenge we are actively planning and collaborating with city and region stakeholders.



Sustainable Strathclyde

The team working within Sustainable Strathclyde are delivering the University's climate change and social responsibility policy and plans, making them a reality. We work on energy, travel and transport, waste minimisation, circular economy, biodiversity, behaviour change and carbon literacy, sustainable procurement and we advise the University on how we can reduce emissions of greenhouse gases. Having met and exceeded our strategic carbon target of a 25% reduction of the 2009/10 baseline by 2020, Sustainable Strathclyde is turning its attention to the net zero transition. Significantly greater intensity of action and adaptation, with clear leadership and collaborative commitments, is now required within a changed context: actively and quickly responding to climate change and shifting activity to a different level.

At an operational level, the University has been working on sustainability issues for a number of years. We operate the largest energy efficiency investment fund in Scotland (by spend) and we have reduced CO2 emissions by 28% over the past 10 years. We recycle 80% of our waste arisings; we have doubled the number of cycle parking spaces available for students and staff in the last 5 years; we are deploying our second wave of electric vehicles and we are now leading on a number of collaborative climate mitigation and adaptation projects in the city.

University District Energy Scheme

The University has recently invested £20M in a campus district heating scheme in the city centre at Glasgow that delivers cost and carbon savings and that is future-proofed so that it can link into future city-wide low carbon networks.

The system is heating and powering 18 buildings at the University and it has several megawatts of additional capacity built in to it so that it can be expanded with low carbon heat energy pumped through it to other users.

Net Zero Collaboration Showcase Example - Delivering a Climate Neutral, Climate Resilient Glasgow City Innovation District

The University has developed a bold and ambitious vision for the creation of 'Climate Neutral Districts' across all of its assets. One of these is the creation of a Climate Neutral Innovation District. Work is now underway with stakeholders in Glasgow, led by the University to identify and determine how best to combine a set of innovative climate solutions that together create a 100% renewable energy system delivering power, heat, transport solutions, climate adaptation, wellbeing and social inclusion within the Glasgow City Innovation District (the "District"). The work is focused on creating a 'whole systems' approach within the area and in neighbouring communities. The work will include a strong focus on emissions reduction and positive impact, deployment at scale, community and stakeholder engagement and involvement. There will also be consideration of the potential for learning, teaching and research opportunities responding to the SDGs, particularly SDGs 7, 11 and 13.

Technical feasibility work is now underway that will bring forward the climate solutions, commercial and financial arrangements that will set out a pathway for delivery of Scotland's first climate neutral Innovation District in the heart of Glasgow.

Where Strathclyde was ranked in the Times Higher Education Impact Rankings 2019

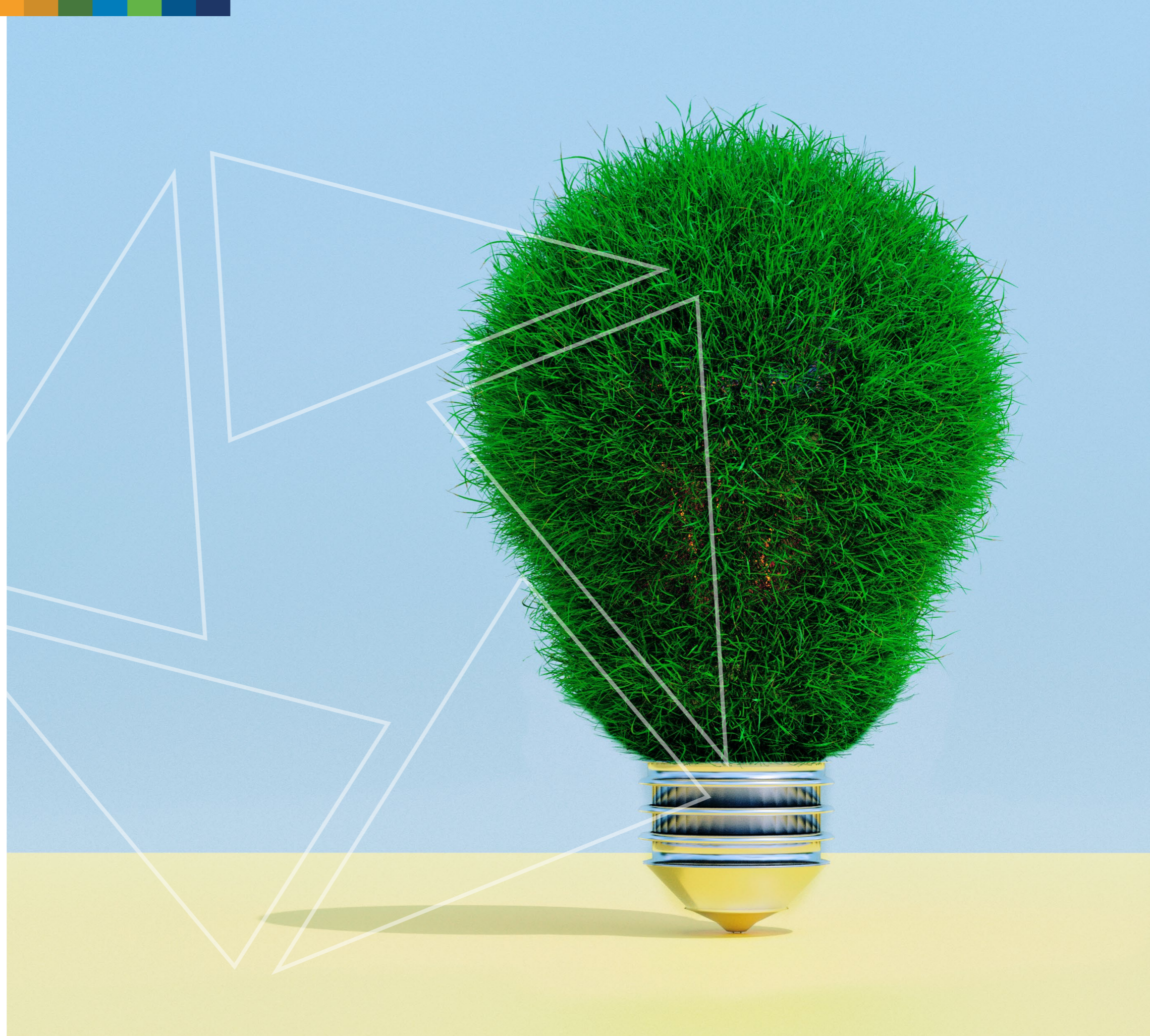


Centre for Sustainable Development

Our Leadership and Governance

The **Centre for Sustainable Development** is a University-wide resource, under the leadership of Professor David Hillier, Associate Principal and Executive Dean. It operates across all faculties and operational activities, and brings a coherence and focus to the University's work within a single strategic approach. Our Centre is directed by Professors Anja Lowit and Andrew Goudie, with the operational leadership headed by Dr Tracy Morse.

The Centre is advised on its strategic approach by an International Advisory Group, drawn from leading external experts. It is advised on a more regular basis on its operational work by an Operational Advisory Board, largely drawn from experts within the University.





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Work with us

We welcome new and existing partners to contact us with enquiries to engage with our Centre in all areas of our research, education and knowledge sharing.

We, naturally, also welcome those who would like to know more of our work.

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October 2020