



ANNUAL SUSTAINABILITY REPORT

2019 - 2020



CONTENTS

Introduction

- Sustainability Timeline

Leadership and Governance

- Sustainability Highlights
- Leadership in Focus

Partnership and Engagement

- Education Ireland Awards
- Sustainability Smart Awards
- Environmental Certification
- Environmental Benchmarking Survey
- Partnership and Engagement in Focus

Estates and Operations

- Biodiversity
- Resource Efficiency and Waste
- Energy and Water
- Travel and Transport
- Operations in Focus

Learning, Teaching and Research

- Addressing Global Changes through Research
- Education for Sustainable Development in the Curriculum
- Student Learning in Focus

Progress Against our Targets





Professor Ian Montgomery

INTRODUCTION

The 2019/20 Sustainability Report outlines Ulster University’s excellent sustainability progress over the last academic year, a year marked by unprecedented events and campus closures due to the Coronavirus Pandemic.

We continue to focus on sustainability in line with our policy commitments and action plans to build on our continuing dedication to sustainability improvements spanning more than 15 years.

Sustainability Timeline

<p>Pre 2000</p> <ul style="list-style-type: none"> • Borehole water supply and combined heat and power electricity supply installed at Jordanstown campus. 	<p>2007</p> <ul style="list-style-type: none"> • First solar power scheme installed (1st of 8). 	<p>2008</p> <ul style="list-style-type: none"> • First wind turbine generator on a UK university campus (Coleraine campus).
<p>2010</p> <ul style="list-style-type: none"> • Carbon Management Plan launched. • Energy monitoring and targeting system implemented. 	<p>2012</p> <ul style="list-style-type: none"> • Rainwater recycling system for Belfast campus. 	<p>2013</p> <ul style="list-style-type: none"> • Establishment of Environmental Sustainability Steering Group (ESSG).
<p>2014</p> <ul style="list-style-type: none"> • Launch of Green Impact engagement programme. 	<p>2015</p> <ul style="list-style-type: none"> • Replacement of 1960s building stock on Coleraine campus with new energy efficient buildings. 	<p>2016</p> <ul style="list-style-type: none"> • ISO 14001 Certification. • Finalist, Thelma Award, Outstanding Estates Category.
<p>2017</p> <ul style="list-style-type: none"> • Second wind turbine commissioned on the Coleraine campus. This led to 40% of the energy used on campus being generated from on-campus renewable energy sources. 	<p>2018</p> <ul style="list-style-type: none"> • Electric vehicle charging installed on campus. • Education for Sustainable Development Working Group established. 	<p>2019</p> <ul style="list-style-type: none"> • Winner, Business in the Community Responsible Business Awards, Environmental Leadership Category. • Zero Waste to landfill.
<p>2020</p> <ul style="list-style-type: none"> • Carbon Management Plan target passed and actual total reduction in emissions of 50% achieved compared to a target reduction of 29% by 2021. • Finalist, Education Ireland Award, Best Green campus. 		



LEADERSHIP AND GOVERNANCE

At Ulster, the Environmental Sustainability Steering Group (ESSG) reporting to the Resources Committee is chaired by Prof. Ian Montgomery and has representatives from faculties and directorates across the University. Student representatives at ESSG are the Student Union's President and Chief

Executive providing the student voice and input on student-led sustainability activities.

The Sustainability Manager and Education for Sustainability Lead form an informal 'sustainability team' who network closely with others to disseminate information and drive initiatives.



Prof Ian Montgomery
Chair ESSG



Amanda Castray
Director of Campus Life



Colm Crean
Director of Faculty Operations



Prof Carol Curran
Executive Dean



Michael Fitzpatrick
Director of Estates



Marie Louise Gaile
Sustainability Manager



Peter Hope
Chief Financial Officer



Elaine Lackemeier
Executive Manager



David Longstaff
Chief Executive Officer (Students Union)



Prof Liam Maguire
Executive Dean



Andrew McAnallen
UUSU President



Declan McHugh
Head of Engineering Services



Dr Amanda Platt
Lecturer in Higher Education Practice



Dr Susann Power
Environmental Champion Representative

SUSTAINABILITY HIGHLIGHTS



A saving of **12.6 tonnes** of carbon emissions using WARP-IT resource reallocation system



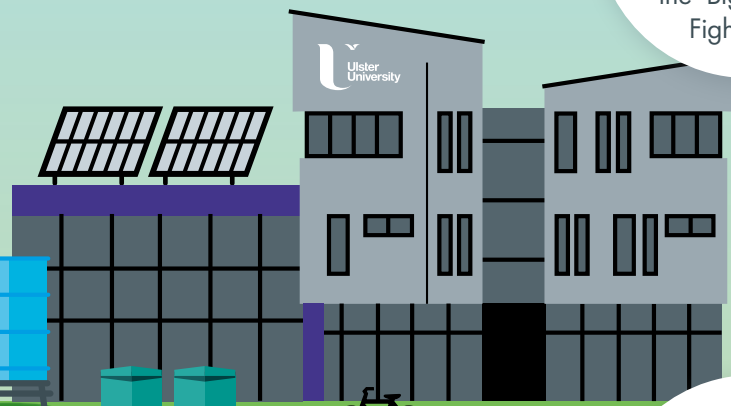
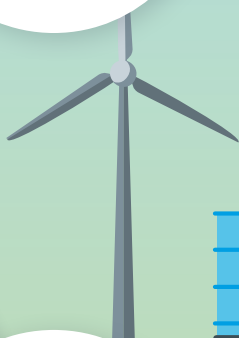
Total renewable electricity generated was the equivalent to **22%** of the University's electricity consumption



Gold in the Northern Ireland Environmental Benchmarking Survey



Coleraine campus grounds team planted **170 trees** on 28 October for the 'Big Climate Fightback'



Launch of the New North West Travel Plan to promote **sustainable travel**



Four teams achieved **Gold Level** at the Sustainability Smart Awards



Ranked as **one of the top** Universities for the 2020 NUS SDG Teach-In



Shortlisted for the Education Ireland Awards for the **Best Green Campus**

Leadership in Focus – Dr Susann Power

As Environmental Champion for the Department of Hospitality and Tourism Management (HTM), Dr Susann Power has been active in driving sustainability initiatives forward. Dr Power, along with colleagues Dr Laura Wells and Dr Lynsey Hollywood, commenced a research project entitled “Encouraging sustainable mindsets: embedding sustainability into the curriculum” and ran a series of virtual Sustainable Development Goals workshops during the year with students on how to improve sustainability literacy.

Sustainability has become a major focus within the Department of Hospitality and Tourism Management, both in teaching and research, much due to the work and enthusiasm by all colleagues and evidenced by HTM being consistently top-ranked in the NUS Global Goals Teach-In.

Dr Power has led on a peer-supported learning & teaching review on sustainability in the curriculum and mapping the Department’s new Masters’ degree provision against the UN Sustainable Development Goals, as well as achieving Silver accreditation for the UU Sustainability Smart Awards for Education in May 2020. In further shaping the department’s sustainability research agenda two exceptional PhD researchers were also recruited with research topics on pro-environmental behaviour change (Rachael Singleton) and rural, sustainable tourism (Kingsley Agoha).

“While Covid-19 may have disrupted campus activities and teaching, HTM continued to keep a focus on sustainability literacy and research”.

Una McMahon-Beattie,
Head of Department of Hospitality and
Tourism Management





PARTNERSHIP AND ENGAGEMENT

The Sustainable Development Goals or Global Goals are a collection of 17 interlinked global goals designed to be a “blueprint to achieve a better and more sustainable future for all”. The SDGs were set in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030. Ulster has developed a focused approach to embedding the Sustainable Development Goals into the curriculum, to educate the next generation who will be most affected by the global climate crisis to have the skills needed to find solutions.

Ulster’s collaborative approach to sustainability involving students, academic and professional services and contract support staff is based on the principle that sustainability is the responsibility of everybody in the university. Through sustainability partnerships and engagement, we have had the following award success ►



Education Ireland Awards

Goal 15 – Life on Land

Ulster was a shortlisted finalist in the Best Green Campus category of the annual Education Ireland Awards which celebrate excellence in the higher education sector across the island of Ireland.

Ulster’s entry for the award outlined the introduction of sustainability initiatives at the Coleraine campus including low carbon technologies, woodland walk, sustainability engagement programmes and plans to enhance student learning through the SDGs.



Sustainability Smart Awards

Goal 17 – Partnership for the Goals

The Sustainability Smart Awards, previously the Green Impact Programme, was hugely successful this year with 13 academic, professional services and contract support teams participating. The brilliant success of this year’s award program is highlighted by four teams achieving Gold Award levels, seven achieving Silver Award levels and two achieving Bronze Level. This is a testament to all the hard work put in by all participating teams and students involved!

The awards encourage, recognize, and celebrate the efforts of staff, students, and departments in making Ulster University more socially responsible and sustainable. The award criteria was broadened in 2019/20 and aligned to the Sustainable Development Goals (SDGs) including actions around climate, equality, wellbeing, and sustainable procurement.

We were delighted to introduce some further additions to the awards programme this year by providing an Education specific workbook for academic teams to implement and we also recruited eight student Sustainability Smart Project Assistants. The student



Debbie Montgomery-Buick and her husband, launched Blu’s Blooms, a plant delivery service during the first lockdown.

volunteers, worked closely with staff teams to motivate, support, and help them complete actions. six students also trained as Sustainability Smart Student Auditors, who assessed and verified actions to determine award levels. The student volunteers were rewarded for giving up their own time with an EDGE award accreditation and a formal auditor qualification from the Institute of Environmental Management and Assessment (IEMA).

As we all know, this year our lives were impacted by the global pandemic, however, there has also been positives to come out of our time in lockdown with staff members at Ulster beginning to integrate more sustainable behaviours into their daily lives. This led to the ‘Lockdown Challenge’ which invited staff members to share sustainability activities at home over lockdown.

“The EMS has helped us to embed sustainability within our procurement practices providing positive impacts and financial value to the institution”.

Clare Egan,
Head of Procurement

Environmental Certification

Goal 12 – Responsible Consumption and Production

Estates and Procurement Departments were successful in recertification to ISO 14001, the Environmental Management System (EMS) standard. This year Ulster was able to widen the scope of the EMS audit to include Facilities Services providing further rigour to the assessment of environmental governance and operational practices.

The EMS gives a structured framework for managing and minimising the impact of operations on the environment.



Environmental Benchmarking Survey

Goal 13 – Climate Action

The University has participated in the Environmental Benchmarking Survey for the last 11 years and this year attained Gold Level. The survey assesses the environmental management, performance, and assurance credentials of organisations in stepping up to protect the environment.



“Sustainability should be core to all teaching, continually making the linkages between disciplines, topics and the contribution to overarching SDG’s. Sustainability is not the domain of one discipline or profession; it is the responsibility of all disciplines”.

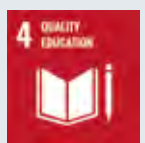
Robert Cameron, Lecturer in Food and Nutrition Policies and Standards

Partnership and Engagement in Focus – Global Goal Teach In

Goal 4 - Quality Education

Ulster University took part in the Third annual ‘NUS Sustainable Development Goals Teach In’. This initiative is designed to raise awareness among our students and staff about the UN Sustainable Development Goals (SDGs) and why they should be at the centre of education to motivate the next generation of change agents to take action to achieve a better and more sustainable future for everyone.

Ulster came out as one of the top universities for the 2020 SDG Teach-in. Ulster came first on the leader board for the number of educators that took part in the pledge and second on the leader board for the percentage of students reached.



ESTATES AND OPERATIONS

Biodiversity

Goal 15 – Life on Land

The Coleraine campus grounds team invited staff and students to take part in bulb and tree planting activities within the woodland environment as part of our 'Plant Smart' initiative and in conjunction with the Woodland Trusts 'Big Climate Fightback' campaign. Over 170 native trees were successfully planted over two phases in October and again in January. Trees were planted as 20-30cm 'plugs' with each tree being covered by a translucent shelter to provide protection from grazing rabbits but also to aid rapid growth due to the microclimate they create. In addition to the woodland planting, 18 'cube headed' native hornbeam were planted at the main entrance to Coleraine campus.

A total of 10,000 native bulbs were planted to complement those already in existence along the



Tree planting at Coleraine campus

woodland walk and other woodland edge areas. These included native bluebell, wild garlic, winter aconite and snowdrop.

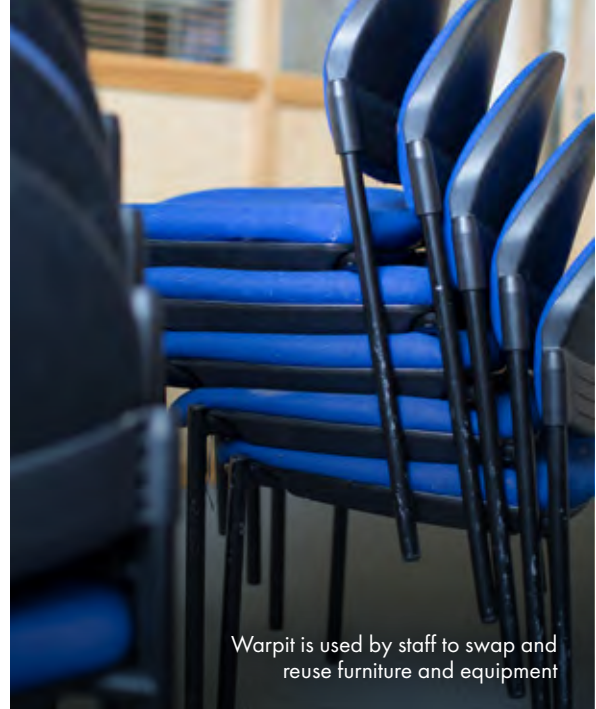
The grounds team are now maintaining over two hectares of wildflower meadow across Coleraine Campus. A further 1000m² of wildflower meadow was sown using techniques used in the Olympic Park in London. This involved the use of composted garden waste to mulch the native soils thus allowing the wildflower seed to establish.

Resource Efficiency and Waste

Goal 12 - Responsible Consumption and Production

In 2019/20, the total routine commercial waste generated across the estate fell by 103.92 tonnes, a decrease of 17.6% from the previous year. The first six months of the reporting year saw 350 tonnes of waste generated compared to 135 tonnes from January to July 2020 when campuses were closed due to Covid-19. Routine commercial waste has reduced overall by 28.7% from 2009/10 baseline.

Warp-it (Waste Action Reuse Portal) is part of Ulster's 'Climate Smart' environmental sustainability engagement initiative. It is a furniture and equipment redistribution network and has resulted in a saving of 12.6 tonnes carbon emissions and £16,597 during 2019/20.



Warpit is used by staff to swap and reuse furniture and equipment

The British Heart Foundation (BHF) campaign 'Pack for Good' was supported by Residential Services who provided collection banks for unwanted clothes at student accommodation on campus. Over 100 bags of clothes were donated to BHF charity shops, which diverted clothing waste that would otherwise have ended up in landfill.

BHF currently provide the salaries for around 500 post-doctoral scientists who work in research teams across the UK on projects to better understand how to diagnose, prevent, treat, and cure heart disease. 100 bags could help find a cure by funding one sponsored young scientist for seven days.



Residential Services, Student Support, Consumer Manager and Food innovation and Causeway Coast & Glens Borough Council are working on the 'Hungry In Halls' project which aims to teach essential cooking skills to first year students.'

Goal 2 - Zero Hunger

The 'Hungry in Halls' initiative was introduced within Residential Services student accommodation. Students were taught how to cook nutritious and tasty meals including vegetarian meals that have a lower environmental impact. Students cooked within their bubble in line with COVID-19 restrictions this year

using store cupboard staples such as lentils, beans, and learned how to make best use of the freezer to avoid food waste. Following completion of the programme, thirty students were eligible for the Hungry in Halls student EDGE award.

Energy and Water

Goal 13 – Climate Action

In 2019/20 electricity usage per square metre decreased by 14.3% and weather-corrected heating energy consumption per unit area decreased by 7.2%.

Energy consumption and system operation was actively managed to minimise usage during the lock down period and this has also facilitated opportunities to refine our base power load that will bring future benefit.

Energy-related carbon emissions decreased overall by 16.8% due to a reduction in fossil fuel and electricity consumption combined with operational efficiency projects, grid de-carbonisation and campuses being closed for part of the year due to Covid-19.

Operational efficiency projects include:

- Upgrade of over 230 traditional light fittings on Coleraine campus to energy efficient, cost effective and low maintenance light fittings which have contributed to a reduction of over nine tonnes of carbon per year.
- Replacement of a building heating, ventilation, and air conditioning system on Magee campus including the addition of heat recovery and CO₂ sensors increasing efficiency and controllability.
- Improvement opportunities during campus closures were also completed including calibration of room sensors, night-time lighting audits and adjusting unnecessary perimeter lighting.

Total renewable electricity generated on campus from two Wind Turbine Generators and eight solar panel schemes was equivalent to 22% of the university's electricity consumption.

Water consumption decreased by 5.6% in 2019/20, this is half of what it was in 2010 and partly due to campuses closures.

Coleraine campus - solar power generation



“The University has established a reputation for delivering on its ambitious sustainability targets, and it’s great to see we have already achieved our 2020/21 carbon reduction target. We recognise the urgency for continued and more radical reductions in carbon emissions and are now setting our minds to how we can achieve net zero carbon emissions”.

Declan McHugh
Head of Engineering Services



Travel and Transport

Goal 11 – Sustainable Cities and Communities

A Travel Plan was developed in 2012, to enhance sustainable travel access to the extended Belfast campus. It contains a multimodal list of actions covering public transport, walking and cycling, car sharing, addressing business needs and marketing and promotion. The implementation of the action plan is progressing in partnership with several stakeholders. The University is working in partnership with Translink to agree public transport enhancements to improve services to and from campus and engagement is ongoing with the Department for Infrastructure and Sustrans to identify and prioritise enhancements to cycling and walking routes and improve connectivity to public transport hubs.

The University operates a Sustainable Travel plan and has further developed a new sustainable travel plan focusing on our North-West campuses, which aims to reduce the impact of our transport on local communities and the wider environment. The overarching aim of this Travel Plan is to reduce single occupancy car travel by staff and students and thereby reduce the environmental impact arising from commuter and business travel. Targets are based on current travel demand and existing travel and transport infrastructure.

The University supports a range of ongoing measures to encourage sustainable travel such as cycle parking, showering and locker facilities, promotion of car sharing along with electric vehicle charging infrastructure and video conferencing facilities as an alternative to travelling.

To help make sustainable travel options easier for colleagues, we hosted travel information stands on each campus during Semester one. Estates Patrol staff marked bikes with security labels and registered bikes to the national Bike Register database, which is used to search for stolen and recovered bikes. ‘Team Translink’ also attended each campus to provide advice on how to get on-board Translink services for an easier, cheaper, and greener way to travel.

Business Air Travel

During 2019/20, there were 8,576,473 kilometres of business air travel by University representatives with carbon emissions of 1,039 tonnes. Whilst air travel is below the base line year of 2015/16 there has been a steady rise in recent years from globalisation initiatives and increased opportunities to travel abroad. There was also a step change this year and the distance travelled almost halved from the previous year due to the global pandemic which brought travel restrictions from March 2020. In a world which needs to reduce emissions down to net-zero by 2050, the Higher Education sector and Ulster will need to engage in a more open debate about air travel carbon and options to reduce it.

Business Car Travel

During the reporting year, staff travelled a total of 1,223,352 miles by car on University business, which resulted in 337 tonnes of carbon emissions. This is a decrease of 29.7% from the previous year and 45.8% below the baseline year level.

Car mileage has been decreasing since 2005 with increased awareness of the benefits of lift sharing, public transport, and improved active travel facilities. However, in recent years business car travel had been on an upward trend. This year the total mileage was below the July 2020 target. The campus closures due to Covid-19 contributed to the July 2020 reduction target being achieved.



7%
of staff walk
or cycle.

9%
of students
walk or cycle.

Operations in Focus – Wellbeing

Goal 3 - Good Health and Wellbeing

The Employee Wellbeing Strategy was launched in September 2019 and set out a three-year plan to introduce and embed Wellbeing across our teams to create a healthy and happy workplace where physical and mental health can be supported and where colleagues can develop their own work life balance.

There are six pillars of the Employee Wellbeing strategy - Mental, Physical, Emotional, Financial, Environment and Social Wellbeing. Throughout the year there have been many activities focused on increasing staff engagement around these pillars including a litter sweep of Benone Beach and working as volunteers in a charity café. Activities have also included health awareness webinars, physical challenges, the creation of a social media space to communicate and share and the provision of advice from experts on pensions, sleep and mental health.

Employee wellbeing was a vital point of contact during lockdown and campus closures with a network of Wellbeing Champions formed to provide access to help and support as colleagues adjusted to home working.

“We are delighted to have held our first Employee Wellbeing Week across all our campuses. We aim to provide an environment where staff wellbeing is integrated into day-to-day practices – at the heart of what we do”.

Geoff Gillan
Head of Health, Safety and Wellbeing





LEARNING TEACHING AND RESEARCH



Addressing Global Challenges through Research

The Global Challenges Research Fund is a £1.5 billion fund provided to support research that addresses the challenges faced by developing countries.

The purpose of GCRF is to fund challenge-led research whilst strengthening UK and overseas capacity and responding rapidly to emergencies.

Designed to support the UK Aid Strategy and the Sustainable Development Goals, research must contribute to the social welfare and economic development of the countries being researched.

Ulster is delivering on several of the UN Sustainable Development Goals, through our world-leading research. We've featured two examples below.

Goal 3 - Good Health and Well-being

Global average life expectancy now sits around age 72, more than double that of 100 years ago. Medical advancements in the twentieth century have left us with a global challenge as ageing populations create unprecedented demand for healthcare.

As people are living longer, the risk of multiple chronic conditions such as chronic obstructive pulmonary disease (COPD), high blood pressure and diabetes increases. We are pioneering a personalised approach to treatment based on individual characteristics, moving away from a one size fits all approach and significantly improving success rates.

Coronary heart disease is the leading cause of death worldwide. Individuals with coronary heart disease, or those who have had a heart attack, are twice as likely to experience a stroke. Our wearable heart failure devices will help to reduce strokes and prevent hospital readmissions, saving lives and reducing pressure on hospital resources.

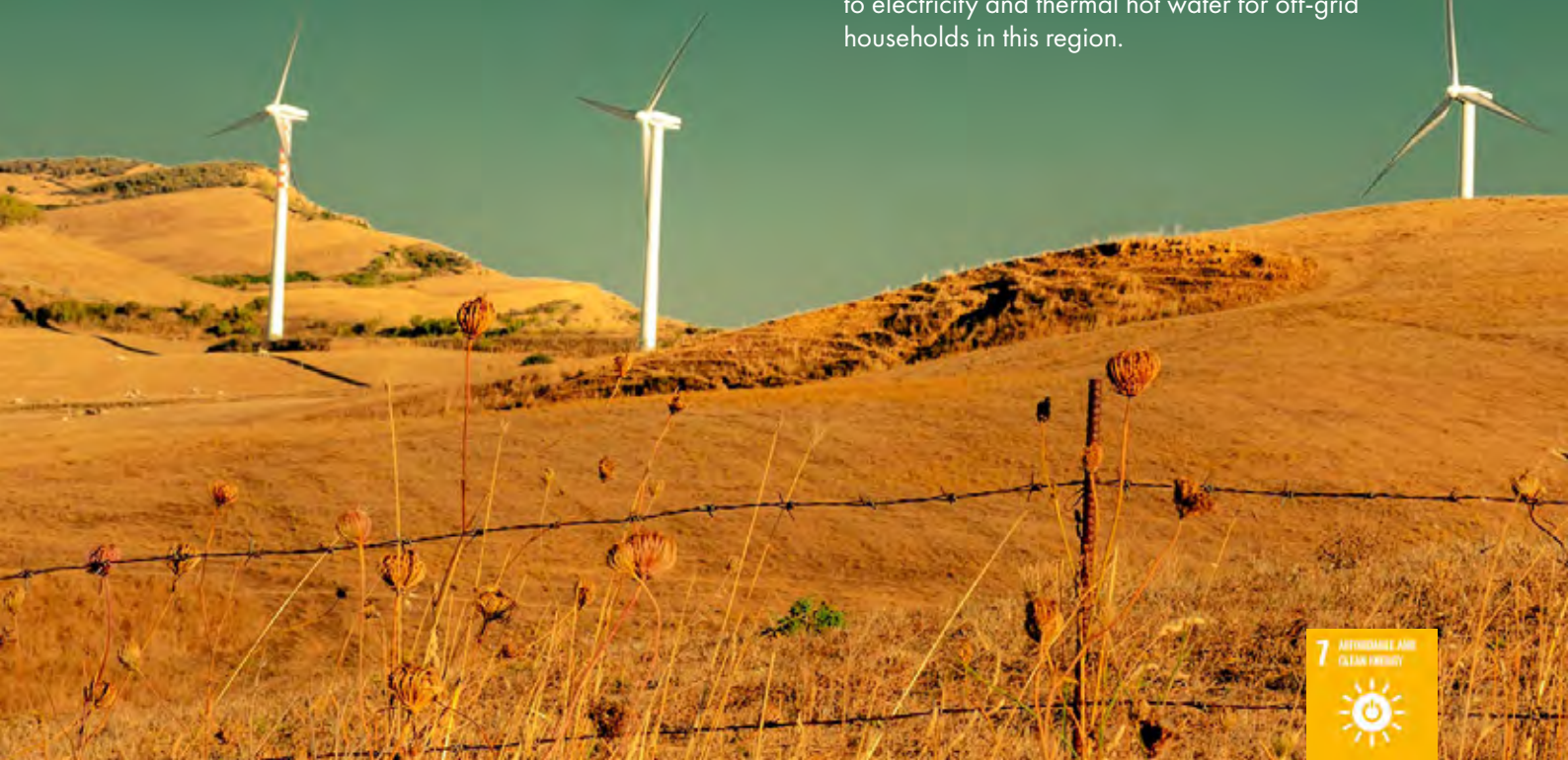


Goal 7 - Affordable and Clean Energy

The UK Government has announced plans to end fossil fuel heating systems in new houses from 2025. We are helping to meet these demands by developing consumer-owned energy solutions such as heat pumps.

More than 600 million people in Sub-Saharan Africa live without access to electricity, giving rise to detrimental socio-economic conditions and poor health and well-being, further exacerbated by population growth and urbanisation.

We are developing standalone solar systems to provide cost effective and affordable access to electricity and thermal hot water for off-grid households in this region.



Education for Sustainable Development in the Curriculum

Goal 4 - Quality Education

Ulster University has an ongoing commitment to Education for Sustainable Development (ESD). Many of our courses already include ESD related content aligned with the UN Sustainable Development Goals and we want to encourage more staff to consider how this global imperative can be developed and more explicitly embedded in the curriculum.

To be most effective, ESD requires learner-centred and transformative pedagogies that promote learning through active, participatory, and experiential pedagogic approaches that engage and make a real difference to their understanding, thinking and ability to act for sustainable development (Barth and Burandt, 2013).

Accordingly, ESD at Ulster will support and facilitate our aspiration to promote and afford all our students the opportunity to experience contemporary and effective teaching and learning approaches that promote `exploration, innovation, entrepreneurship, critical thinking, and problem solving` (Learning & Teaching Strategy 2018-24).

The Education for Sustainable Development Working group met several times during 2018/19 and at the beginning of 2019/20 to refine and progress its ESD project, which encompasses the four key strands of interest, outlined below. These aspects have been further expanded and progressed during 2019/20.



1. Benchmark the existence of Sustainable Development (SD) related themes in existing programme curricula, aligned with the UN Global Goals, as documented in the institutional Curriculum Management System (CMS). This aspect has been extended to include an audit of SD related references in Subject Benchmark Statements, which are written by subject specialists and describe the nature of study and the academic standards expected of graduates in specific subject areas. As such, they are important reference points used by staff in the design, delivery, and review of programmes.
2. Promote and support the explicit embedding of discipline relevant ESD in all curricula, utilising the aligned mechanisms of the Integrated Curriculum Design Framework and revised evaluation/ revalidation processes, both of which explicitly include ESD. From September 2020, ESD will also be included in the curriculum of CHERP taught courses, Post-graduate Certificate in Higher Education Practice and MEd.
3. Cultivate sustainable development literacy among staff and students, by increasing general awareness of the existence of the UN Global Goals for SD, and identification of those that are relevant to disciplines, programmes, and modules.
4. Identify and support the expansion of ESD advocates with experience of ESD. Disseminate existing case study exemplars of ESD in the curriculum via a dedicated ESD webpage within the CHERP website.

<https://www.ulster.ac.uk/cherp/academic-development/esd>



Student Learning in Focus – Community Engagement

Goal 17 – Partnership for the Goals

The ‘Science Shop’ initiative provides invaluable real-life connected learning opportunities for Interactive Media students to develop a range of media outputs while meeting unmet media needs for the community and voluntary partners across Northern Ireland.



This year’s students worked with eight Science Shop partners including:

- Endeavour, working with young men in secondary training them as mental health mentors
- #123GP a campaign group promoting better access to primary health care
- Carers NI a charity supporting the needs of carers across Northern Ireland
- Foyle Search and Rescue who patrol and rescue those who enter the River Foyle

The collaboration between the Science Shop and the School of Communication and Media was shortlisted for Irish Education Outreach Award and won Ulster University Distinguished Education Excellence Award 2019.

Adrian Hickey, Senior Lecturer Interactive Media, Professor Paul Bartholomew, Vice-chancellor, with Annual Science Shop Digital Media Award winners Bethany McMordie, Alex McQuitty, Jenny Lindsay and Claire Mulrone, Community Engagement Manager.

Goal 16 – Peace and Justice Strong Institutions

Launched in 2019 the ‘Social Justice Hub’ at Magee campus provides free legal advice on Social Security, Employment, and aspects of Family Law. Cases are taken by Ulster undergraduate and postgraduate students under the supervision of experienced law staff.

Ulster Law Clinics provide advice and representation in areas of Social Security Law, Disability Living Allowance, Personal Independence Payment, Employment & Support Allowance and Employment and Family Law.

Lecturer in Law Shauna Page, Community Engagement Manager Claire Mulrone, Mary Durkan BL, Law student Julie Smith Leddy, and Law Clinic Co-Director Dr Esther McGuiness.



PROGRESS AGAINST OUR TARGETS

Over the course of 2019/20, we have made considerable progress in a range of areas highlighted in the performance table and charts below, including achieving our carbon emissions and business car travel reduction targets.

We have embraced new activities and challenges in 2019/20, including increased biodiversity activities, such as tree and bulb planting with staff and students, introduced our Sustainability Smart engagement programme and launched the new North West Travel Plan. We have also widened our understanding and engagement around Education for Sustainable Development (ESD) and participated in the Global Goals Teach In.

However, there is room for improvement, specifically in relation to business air travel. It seems clear that the university needs to reduce long-distance air travel emissions. Meeting reduction targets will require fundamental changes in:






- i) how we travel
- ii) whether we travel
- iii) where we travel



We will also need to compensate for emissions we cannot avoid.

Some business air travel reduction actions to be considered in line with other institutions could include

- i) requesting staff to justify all trips with sign off
- ii) sharing individual carbon footprint calculator
- iii) Setting a carbon budget per person
- iv) focusing on frequent flyers and
- v) putting sustainable travel costings into grant proposals.

We also acknowledge that during the campus closures from March 2020 electricity and heating related carbon emissions shifted from campus operations to staff homes, this may be an area we explore in the future to establish our emissions from remote working. The University also plans to measure and reduce emissions associated with activities previously not measured, such as those associated with purchased goods and services, commuting and investments.

Impact Area	Baseline Year	Baseline	Target %	Target Year	Target	2017/2018	2018/2019	Current Progress	Position
Engagement Sustainability Smart – Green Impact Award Silver Teams	2014/15	2	-	2019/20	5	5	4	11	 We have achieved our target
Engagement Sustainability Smart – Green Impact Award Bronze Teams	2014/15	11	-	2019/20	25	8	9	2	 We can do better
Carbon Emissions – Scope 1 and 2 Emission Tonnes	2005/06	19,889	29	2020/21	14,207	10,878	9,964	8,292	 We have achieved our target
Water – Mains Water Consumed m ³	2009/10	159,829	20	2020/21	127,857	80,448	80,626	76,133	 We have achieved our target
Resource Use – Routine Commercial Waste Tonnes	2009/10	682	38	2020/21	425	523.99	589.87	485.95	 We can do better

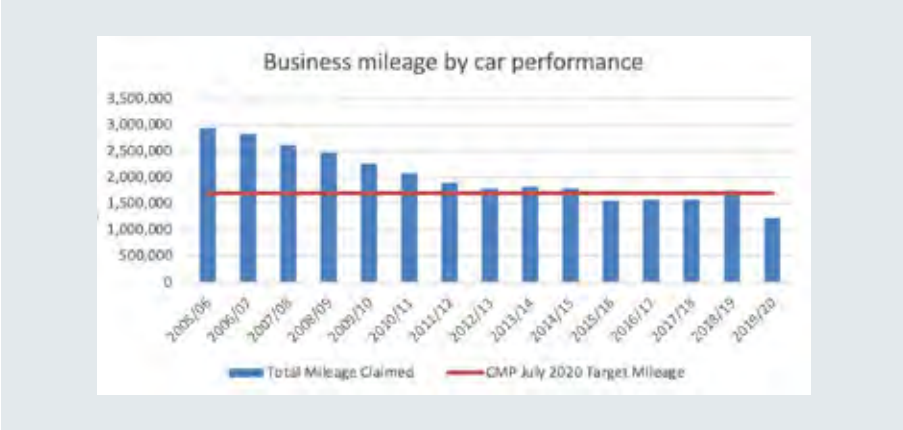
Impact Area	Baseline Year	Baseline	Target %	Target Year	Target	2017/2018	2018/2019	Current Progress	Position	
Travel – Business Car Miles	2009/10	2,258,754	25	2019/20	1,694,066	1,573,115	1,740,251	1,223,352	 We have achieved our target	
Travel – Air Travel Carbon Emission Tonnes	2013	1,370	20	2020/21	1,096	1,688	1,916	1,039	 We can do better	
Sustainable Education – ESD Exemplars	2017/18	2019/20	Staff call for existing ESD exemplars by March 2019			-	Commenced and ongoing			 We are making good progress
Sustainable Education – Benchmarking	2017/18	2020/21	Benchmarking of curriculum. Subject Benchmark Statements, staff and student awareness surveys and analysis by June 2021			-	Participated in NUS Global Goals Teach In (Feb 2020; achieving: 1st place for staff engaged 2nd place for % students reached)			
Sustainable Education – Curriculum Development	2017/18	2020/21	Exploration and benchmarking of curriculum via CMS for ESD related curriculum by June 2021			-	Commenced and ongoing			
Sustainable Education – Review	2017/18	2019/20	Submit ESD Project Proposal for SLaTE			-	Submission by January 2021			

Performance Charts

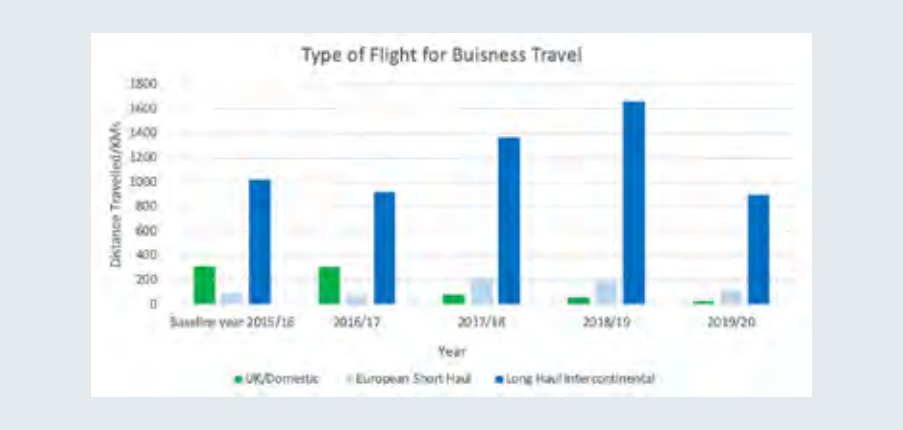
Graph 1:
Business air travel kilometres and carbon emissions 2015/16 to 2019/20



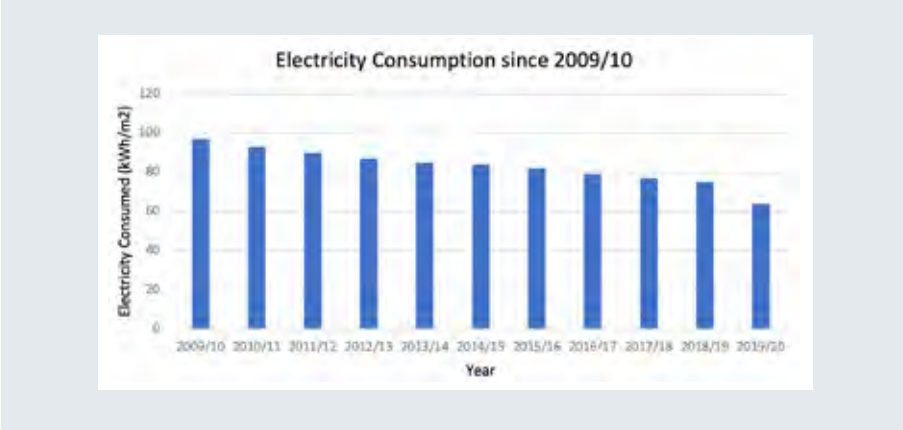
Graph 2:
Business car mileage 2005/06 to 2019/20



Graph 3:
Breakdown of business travel flights by type 2015/16 to 2019/20



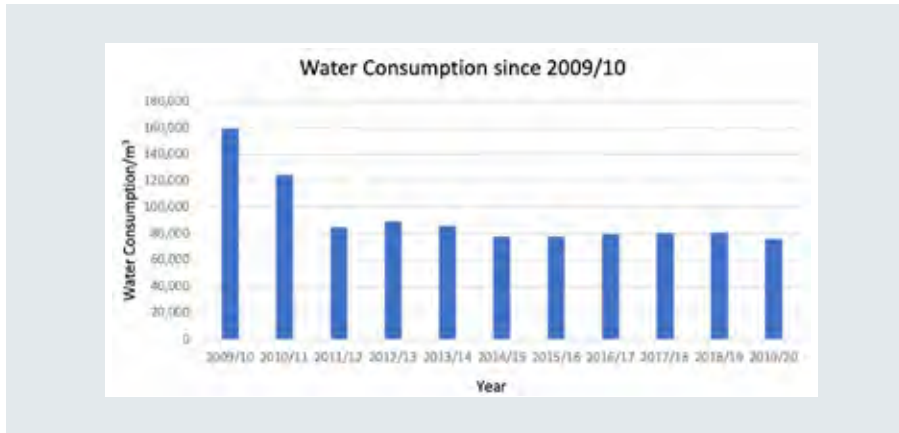
Graph 4:
Electricity consumption since 2009/10



Performance Charts

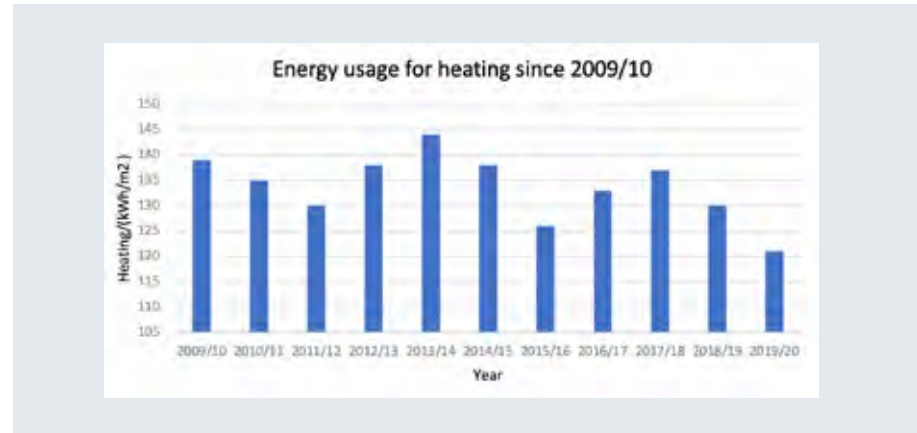
Graph 5:

Water consumption since 2009/10



Graph 6:

Heating energy usage since 2009/10



Graph 7:

Scope 1 and 2 carbon emissions since 2009/10

