Performance Report 2023

Swansea University
Prifysgol Abertawe

Sustainability
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Contents

1. Introduction and Overview

This 2023 report provides an overview of Environmental Sustainability performance of Swansea University aligned with our Objectives Goal Strategies and Measures (OGSM) and our Environmental Management System ISO 14001.

N.b. Due to varying reporting requirements and periods the latest published data is used wherever possible to provide timely official information. For example, carbon emissions data is derived from published HESA data 2021/22 whereas, EMS performance information may be consolidated and presented for 2022/23.

2. General Updates

- Annual ISO14001:2015 external audit conducted by NQA, 4th - 7th July 2022. A surveillance visit, the **University maintained full accreditation**.

- University **Sustainability Policy was reviewed in August 2022** (Carbon target updated).

- New **Sustainability Committee was formed in May 2022** including Faculty, PSU, Union and SLT and Student representatives.

- **SLT adopted Sustainability strategy objectives into University Annual Plan** and performance measures Jan 2023.

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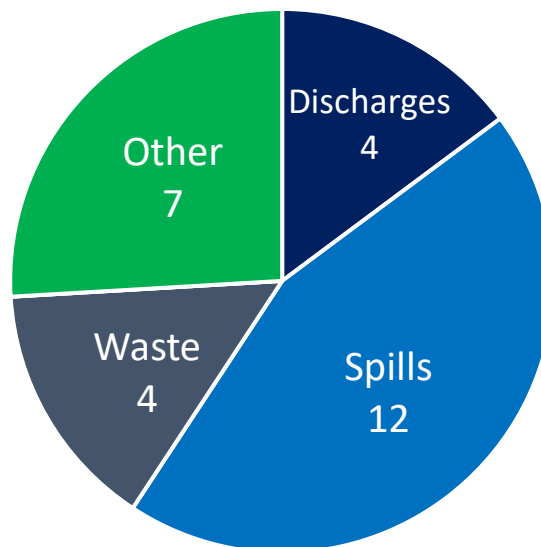## 3. Non-Conformities (NCs) and Opportunities for Improvement (OFI)

- **Zero NCs** were identified in 2021/22 internal or external audits.
- **20 OFI** recorded across 3 internal audits.

OFIs from 2021/22 external audit:

- The university could usefully review its Internal Audit schedule. The significance of environmental aspects associated with an area or activity could potentially play a bigger role in the scheduling of internal audits.
- The university could usefully ensure that the rescheduled internal audit of HR is completed as planned in March 2023.
- The university could usefully look to re-energise the laboratory LEAF audit programme.
- The university could usefully ensure that the work that has been started with the new Legislative Update Service website is completed.

4. Environmental Adverse events

- 27 environmental adverse events reported July 2021-June 2023 via the university adverse event reporting system, categorised below.

Adverse Event investigations and associated corrective/preventative actions are tracked to closure through the EMS system. E.g. A new spills procedure, training and infrastructure is currently being rolled out.

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Sustainability Strategy OGSM performance

		Sustainability and Climate Emergency Strategy			Owners	COO and PVCR			
Objective		To be an exemplar University for Sustainability and Zero Carbon Research, Teaching and Operations, embedding the Sustainable Development Goals in everything we do, consistently recognised as a university performing at the top of sustainable league tables.							
Goals			Base	22/23	23/24	24/25	25/26	26/27	
	1	People and Planet League position	10 out of 154	Goal 10 / Actual 13th	8	7	6	5	
	2	Sustainable Development Goal THE Impact Rating	101 - 200th	Goal <150 / Actual 101 - 200th	<125	<100	<75	<50	
	3	Zero Carbon Operations (Scope 1 and 2) Zero by 2035	17602 tCO2e	Goal 30% / Actual 34% (2021/22)	40%	45%	-50%	-55%	
	4	Net Zero Carbon Services (Scope 3) -50% by 2035	40395 tCO2e	G 15% / +25% A (2021/22)	20.00%	22.50%	25.00%	27.50%	
	5	QS Sustainability Ranking (Research and Teaching)	321-340th	Goal <250 / Oct 23 release	<200	<150	<100	<50	

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OGSM Theme	Target	Performance
THE CLIMATE EMERGENCY	• Scope 1 & 2 **30%** reduction 2021/22 since 2015/16 baseline tCO_2e	**34%** 5,917 tCO_2e reduction
	• Scope 3 **12.5%** reduction 2021/22 since 2015/16 baseline tCO_2e	**25%** 1,562 tCO2e increase due to standard DEFRA emission factor change and increase in spend
OUR NATURAL ENVIRONMENT	• Nature Positive Universities Programme • Welsh Government Net Zero public Sector reporting for CO2 of land use. • Biodiversity duty report	• Nature Positive Universities pledge established. • Welsh Gov. 2021/22 report completed. • Duty Report completed, required under section 6 of the Environment (Wales) Act (every 3 years)
OUR WORKING ENVIRONMENT	• Increase total diversion of waste from Landfill / Energy from Waste (EFW)	• 63% Waste recycled or sent for anaerobic digestion in 21/22, an increase of 4% from 59% in 20-21. Remaining waste was sent for energy recovery.
OUR TRAVEL	• Scope 3 Travel emissions. • Maintain CFE award (target gold). • Annual Travel Survey results.	• -4.4% (208tCO2e) Travel (Business and Commute) compared to 2019/20 Pre COVID. • Maintained Cycle Friendly Employer status. • Annual survey completed.
Knowledge and Skills	• Staff engagement/awareness (No. of activities and volunteering opportunities) • SWell % sign ups and participation rate % • P&P League table sustainable Staff and Student engagement criteria. • People and Planet league criteria for education for sustainable development and ethical careers and recruitment. • Times higher Impact and QS rankings for Sustainability.	• 44 Sustainability events in 22/23 e.g weekly gardening sessions, monthly beach cleans, Community Fridge events, biodiversity volunteering, and Go Green Week see our Eventbrite platform • 50% of Staff and 400 students registered on SWell • P&P 2023 100% for engagement criteria
		• P&P 2023 76% for Education and 25% for Ethical Careers • Times higher same position as previous year. • Awaiting QS results.

5. Environmental Performance

OGSM: Climate Emergency - University Scope 1 & 2 emissions 20/21 vs

-12% (1,562)
from 13,247 to 11,686 tCO$_2$e
(Gas/Fleet/Elec/Oil)

16.6% Singleton/HSV reduction (excl. Fleet)
1.9% Bay reduction (excl. Fleet)

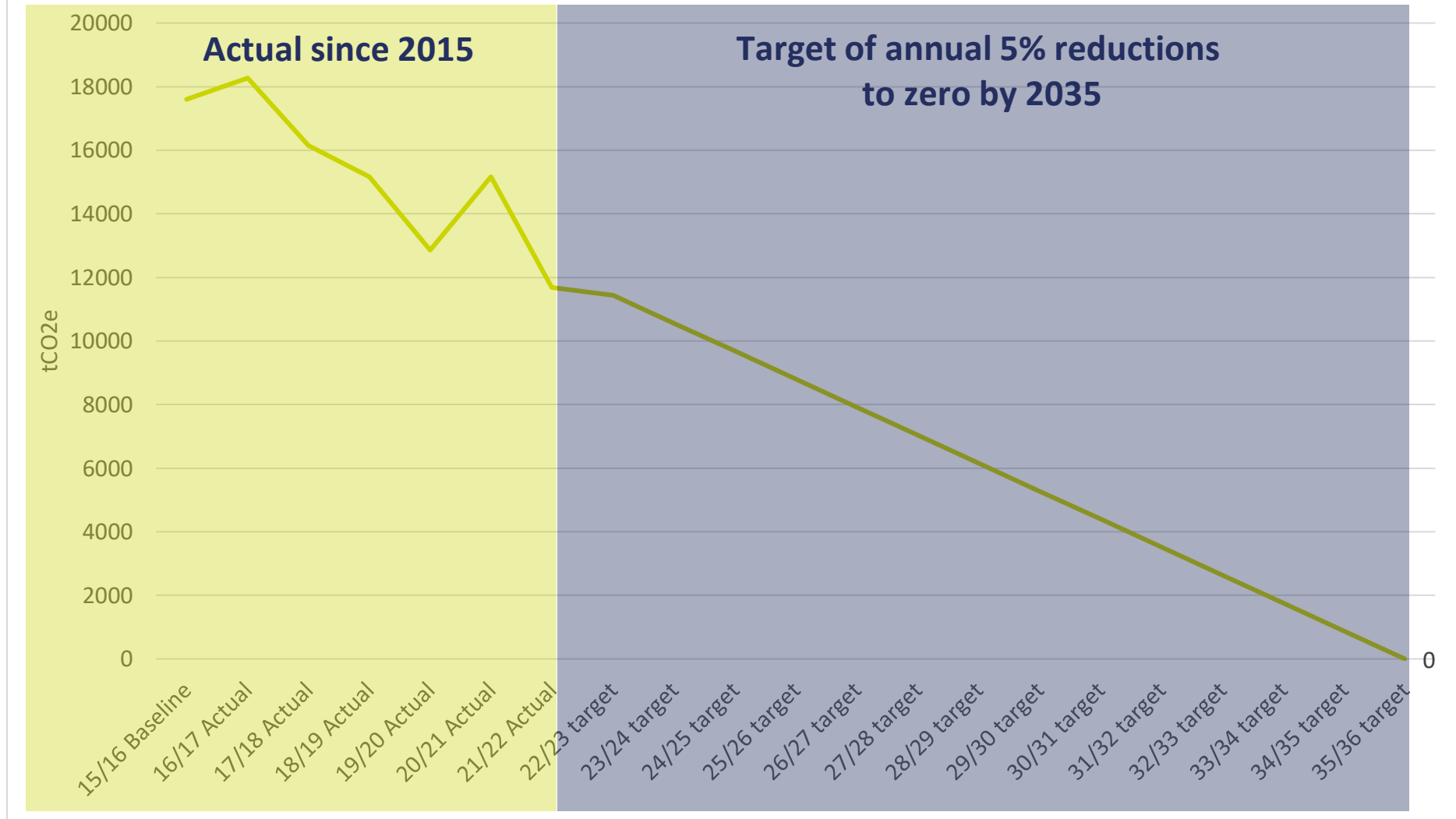**University Scope 1 & 2 emissions since 2015/16 baseline (tCO$_2$e)**

-34% (5,917)
since 2015/16 baseline tCO$_2$e
(Gas/Fleet/Elec/Oil)

42.5% Singleton/HSV reduction from 2015/16 baseline (excl. Fleet)
3.4% Bay reduction from 2015/16 baseline (excl. Fleet)

University Scope 1 & 2 emissions by source (tCO$_2$e)

Emissions	Scope 1 tCO2e				Scope 2 tCO2e		Total Scope 1 & 2	Target Reduction from baseline	Performance on our Path to zero	CURRENTLY
	Gas	Fleet	Oil	F-Gas	Grid Electricity	Onsite Renewables CO2te avoided				
15/16	7,649	18	162		9,774	163	17,603		-34%	
20/21 Actual	7,424	5	115		5,703	880	13,247	-25%	-34%	ON COURSE
21/22 Actual	5,796	6	117		5,766	877	11,685	-30%	-66%	ON COURSE
21/22 Plan	5,354	12	113		6,842		12,322	-30%	-66%	ON COURSE
29/30 Plan	2,295	5	49	TBC	2,932		5,281	-70%	-66%	ON COURSE
35/36 Plan	0	0	0		0		0	-100%	-66%	ON COURSE
20/21 Actual vs Plan	441	-6	4		-1,075		-637	Scope 1 & 2		ON COURSE
Since prev. yr	-1,628	1	2		63	-4	-1,562	Scope 1 & 2		ON COURSE
Since 2015:	-1,853	-12	-45		-4,007	714	-5,917	Scope 1 & 2		ON COURSE

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Swansea University Scope 1 & 2 emissions tCO2e

Highlights/ Opportunities	Initiatives 2023/24
£1m Solar PV (Elec) Project (1800 roof mounted panels). **£2m Smart LED** lighting installed (e.g. lecture theatres). - Y Twyni - **Solar PV (Elec), Battery and EV chargers (x5).** - CISM - horizontal **wind turbines & solar PV**. **Pilot net zero ready building** – Haldane refurbishment (air source heat pump & efficient glazing and smart LED lighting). **£157k BMS control improvements.** **95% scored in People and Planet League** for Carbon Management and reporting. - Solar PV generation 15,826kWh drop caused by Bay Campus Eng. Central fire damage (now rectified)	- Singleton Heat decarb study. 4 x building insulation cladding improvements Singleton campus. - Pilot Net Zero ready building – Fulton House to BRE/RICS sustainability accreditation. - Faraday Lecture building switch to ASHPs. - Wales national pool decarbonisation study and action plan. - Net zero vision tool. - EV fleet charging hub Singleton campus. - Green impact and EMS action plans embedded within Faculties.

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University Scope 3 emissions since 2015/16 baseline (tCO₂e)

OFF TARGET

+25% (1,562) Scope 3 emissions since 54,956 to 68,472 tCO₂e

+25% Supply Chain emissions due to updated more accurate **Higher Education Supply Chain Emissions Tool (HESCET)**

ON TARGET

-59% (29tCO₂e) Waste emissions
-68.7% (207tCO₂e) Water/wastewater emissions
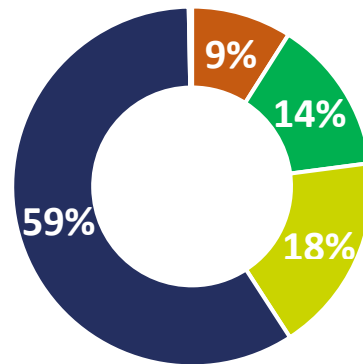**-4.4% (208tCO₂e) Travel (Business and Commute) compared to 2019/20 Pre COVID**

University Scope 3 emissions by source (tCO₂e)

Emissions	Scope 3 tCO2e						Total Scope 3	Reduction target %	Actual Reduction	CURRENTLY
	Waste	Water Supply	Waste Water	Procurement	Staff & Student Business Travel	Staff & Student Commuting				
15/16	41	96	192	51,024	291	3,312	54,956			
16/17 Actual	27	98	191	38,770	372	2,753	42,211	-2.5%		
17/18 Actual	27	99	195	32,063	1,342	6,104	39,830	-5.0%	25%	
18/19 Actual	24	86	168	25,500	1,780	5,994	33,552	-7.5%		
19/20 Actual	21	82	161	26,120	1,200	3,552	31,137	-10.0%		
20/21 Actual	12	30	52	24,352	82	3,635	28,163	-12.5%		OFF COURSE
21/22 Actual	17	33	57	**63,826**	887	3,658	68,477	-15.0%		
21/22 Plan	35	82	163	43,370	247	2,815	46,713	-15.0%		
22/23 Plan	34	79	159	42,094	240	2,733	45,339	-17.5%		
35/36 Plan	21	48	96	25,512	146	1,656	27,478	-50.0%		
20/21 Actual vs Plan	-18	-49	-106	20,456	639	842	21,765		Scope 3	
Since prev. yr	5	3	6	39,473	804	23	40,315			
Since 2015:	-24	-63	-135	12,802	595	346	13,521			

N.B. +25% Supply Chain (Procurement) emissions due to updated more accurate Higher Education Supply Chain Emissions Tool (HESCET)

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Highlights/ Opportunities	Initiatives 2023/24
• Improvements to Scope 3 supply chain emissions accuracy • Zero waste to landfill accreditation. • Pilot programme for carbon offsetting/Insetting. • WFH – policy published. • Piloted hydrogen powered student bus • £100k grant awarded for Net Zero Vision (Project in Digital strategy). • Water leaks increased water consumption. • Sustainability guidance published for marketing and promotional materials.	• EV public charging hub Singleton campus • Feasibility study - EV Public charging hub Bay campus • Increase in LEAF labs accredited • Paper and Printing reduction policy • Single use plastic reduction projects e.g. Coffee cup deposit return scheme. • LEAF role out. • Water leak repairs and upgrades. • Sustainability embedded in Procurement practices e.g. standardised sustainability assessment for tenders.

University total emissions 2021/22 emissions by source:

Legend:
- Staff & Student Commuting
- Grid Electricity
- Gas
- Procurement
- Business travel
- Oil
- Waste water
- Water supply

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Consumption onsite photovoltaic energy 21-22 kWh

21/22 = 343,930

20/21 = 359,756

42,389KWh at Singleton Campus

301,541KWh at the Bay Campus.

15,826 drop caused by Bay Campus Eng. Central fire damage (now rectified)

Display Energy Certificate scores

Average DEC scores were C & D
on Singleton and Bay campus respectively.
Scores decreased on Bay Campus due to building occupancy /energy usage returning to pre-COVID levels.

Water Consumption m^3/m^2

1.5% increase

21/22 = 0.64
20/21 = 0.65

42.5% decrease since 2015/16

2015/16 = 1.12

22,629 m^3 increase due to Singleton district heating network pipe leaks

OGSM: Working Environment (Waste)

63% of waste
recycled or sent for anaerobic digestion in 21/22,
an increase of 4% from 59% in 20-21. Remaining waste
was sent for energy recovery.

36kg of waste
produced per FTE staff and student in 21/22, compared
to 27kg in 20-21

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Working Environment (Procurement)

Sustainable Restaurant Association
one star rating was achieved by the University catering in October 2022, and are working continuously to increase this to 2, and 3 stars. Criteria assessed for this award include sourcing policies, societal contributions, and environmental management.

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90% People & Planet score
was achieved for Sustainable food criteria in 21/22.

1000 meals & 2.5tCO2e saved
via the Too Good To Go app in catering outlets on campus

£59,461 & 40,840kg CO2 saved
via the WARP-IT furniture reuse platform within the

OGSM: Learning, Capacity, Skills and Engagement

University Sustainability Rankings

Top 200 ranking
in the Times Higher Impact Rankings for 2022/23, and within the **Top 20 for SDGs: 16, 3, 12, & 17**. We were ranked lowest for SDGs 8, 9, and 17, and did not report against 1, 2, 4, 5, 10, and 14.

13th out of 154 universities
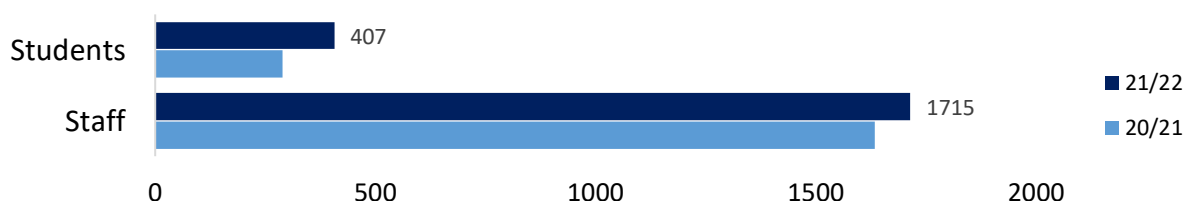in the Times Higher Impact Rankings for 2022/23

Ranked 321 - 340 in QS World University Sustainability rankings 2023

Engagement, Events, and Communications

SWell sign ups

	21/22	20/21
Students	407	
Staff	1715	

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SOS-UK Student Switch off campaign

709 Students engaged in the 21/22 campaign.

398 climate quiz entries.

171 participants in online competitions.

12 students trained as campaign volunteers.

Learning and Skills

New Global Citizen Award Launched a new extracurricular HEAR accredited sustainability award on canvas based on the UN SDGs.

>50 Staff and Student trained in Carbon & Climate Literacy

44 Sustainability events in 22/23
including weekly gardening sessions, monthly beach cleans, Community Fridge events, biodiversity volunteering, and Go Green Week all listed on our Eventbrite platform.

Monthly Inductions & Training
completed with all new staff and students in high-risk faculties.

OGSM Natural Environment	
Highlights/ Opportunities	Initiatives 2023/24
- November 2022 signed universities **Nature Positive pledge**, joining 117 institutions across 44 countries to become a founding member of the Nature Positive alliance unveiled at COP15 in Montreal. - Crymlyn Burrows SSSI: Heritage Lottery Fund (HLF) Projects for: **Dynamic Dunescapes project restoration of 5000m² of dune slack & upper saltmarsh** habitat from recently grown woodland where fen orchid used to be found and the creation of a new 3000m² dune slack in place of Rosa rugosa (an invasive species). **Buglife, B-lines project** ~950m² of grassland Bay Campus managed as wildflower meadow over **2000 wildflower plug plants planted** by university and wider community volunteers. - A further **1900m² of species-rich grassland seeded** with yellow rattle and managed as wildflower meadow. **Student community played an active role in nature conservation**, particularly the Students Union Environment Officer 2 student biosciences interns and societies: Swansea University Conservation and Ecology Society (SUCES), Tree Society and Gardening Society planting native and **22 fruit trees across both campuses**, raised beds for **growing vegetables and herbs** and collaborative campaign to achieve a **Gold award for a Hedgehog Friendly Campus** –Singleton. **Hedgehog and bird boxes built and installed** by volunteers. - Positive management of our grounds has also been recognised at campuses gaining **Green Flag awards**. **9 swift boxes installed** on Singleton Campus as part of Saving Swansea's Swifts and **Swift callers** deployed on two Bay Campus buildings with swift boxes fitted to encourage their adoption by nesting birds as part of NPT's county-wide recording scheme. **Planted ~ 50m of hedging** on Singleton Campus. - A **250m² green roof created** as part of an extension to the Bay gym and planted with native wildflowers. **Monthly bay beach cleans** carried out with staff and student wider community volunteers with **over 3 tonnes of litter removed annually**. **Crymlyn Burrows Bioblitz 2022,** 11 events over 24 hours from bat walk to strandline safari (SSSI)	- Estates and Campus Services integrated Master, Grounds and Biodiversity plans. - Queens Platinum Jubilee Student Challenge: Sphagnum Moss growing on campus for Welsh Valleys peatland restoration project, Installation of recycling compound living roof, Wildflower meadow research Abbey meadow. - First bus shelter with living roof. - Nature trail at bay and renewed trail at singleton. - Crymlyn Burrows SSSI 2 x ornamental archways installed.

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OGSM Travel	
Highlights/ Opportunities	Initiatives 2023/24
-4.4% (208tCO2e) Travel (Business and Commute) compared to 2019/20 Pre COVID - Cycle Friendly Employer Gold Status Maintained - EV Charging Hub - Feasibility Study - Santander Bike Scheme - Bike to Work & EV Car Salary Sacrifice Schemes - SWell Travel Buddy app. - British Cycling Ride Leaders training and led rides British Cycling in house Ride Leader Training for staff & student certification. - On road cycle training and activities to support access to active travel for disabled students - Tusker Car scheme (including ULEVs) - Student Union and Student Travel Training - Discounted staff and student annual and term time bus passes - Free bus travel for HSV students (645) - Bike Maintenance workshops - Dr bike and bike roadshow - Bike, Safety Switch on event (lights, locks, Hi-Viz.) - Discounted bike purchase	- Public EV charging hub Singleton. - Public EV charging hub feasibility study Bay. 3 x E&CS Vehicles switch to EV.

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4b. OGSM for 23/24

Strategy Theme	Key Sustainability Indicator
Climate Emergency	Scope 1 & 2 emissions (inc. reduction from previous year).
	Scope 3 carbon emissions (pa inc. reduction from previous year).
	% energy consumption generated through renewables.
	BREEAM Refurb & Fit Out (RFO) standard or RICS SKA for all infrastructure projects – No. of buildings to standard
	P&P League table carbon reduction criteria.
Natural Environment	Nature Positive Universities Programme baselining and year on year improvements.
	Welsh Gov. Net Zero Public Sector reporting for CO2 of land use
	Biodiversity duty report, required under section 6 of the Environment (Wales) Act (every 3 years).
Working Environment	Total diversion of waste from Landfill / Energy from Waste (EFW)**
	% of major contracts (>£25k) with sustainability built into selection criteria (>5%) and subsequent contract KPIs.
	Catering - Sustainable Restaurant Association (target SRA 3 star).
	P&P Ethical Investment and banking scores.
	% community benefit funds towards university sustainability strategy
	Scope 3 emissions from Procurement and Waste.
	P&P League table sustainable procurement, ethical banking & investment, waste & recycling and water criteria.
Our Travel	Maintain CFE award (target gold).
	Annual Travel Survey results.
	Scope 3 Travel emissions.
	P&P League table carbon management and reduction criteria.
Learning, Capacity, Skills and Engagement	Staff engagement/awareness (No. of activities and volunteering opportunities) Number of discreet corporate sustainability initiates pa
	SWell sign ups & proportion rate %. Numbers of staff involved in SWell and/or other initiatives pa
	P&P League table- Sustainable staff and student engagement criteria.
	Time Higher Impact and QS ranking for sustainability.
	P&P league criteria for education for sustainable development and ethical careers and recruitment.

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6. Changing Circumstances PESTLE analysis

Only new additions from the comprehensive 2021/22 corporate environmental PESTLE analysis are included here for information. (Political, Economic, Sociological, Technological, Legal and Environmental)

P	Risks: League Tables- Poor environmental performance. Opportunities: Changes to Government Policy- - Seeking out funding. - Consideration of reporting requirements against team roles and responsibilities. Influence from Unions or external bodies- - People and Planet petition for Fossil Free Careers. - Nature Positive Pledge. - New Transport for Wales Strategy- Llwybr newydd 2021-26. BREXIT- - Potential to explore sourcing locally in the supply chain. UNSDGs- - Times Higher & QS rankings reporting for targeting improvements. - Explore student-led mapping against SDGs. Corporate Improvement Initiatives- - Increase staff resources through Change Agents. - Integration of sustainability and targets into wider University strategies (e.g. SDGs, NetZero and LEAF) into operations, teaching, research and PSUs. - Opportunities for; upskilling, supporting, facilitating, financing, and communicating the climate emergency message and the university commitments. - Opportunities to integrate sustainability into job descriptions via the sustainability committee.
E	Risks: Availability of Funding- Staff and student recruitment and/or retention. Energy costs and tariffs- Risk of increased tariff costs for renewable electricity. Contracts- Likely to increase CO2 equivalent in initial annual report as accuracy increases.

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	Opportunities: Energy costs and tariffs- Purchase Pay Agreement (PPA) available for renewables. Contracts- - Preferred sustainable products and services into contracts e.g. EV fleet, labs. - Increase availability and accuracy of reporting. - Increased duty of care.
S	Risks: No new risks presented. Opportunities: Impact on local communities- Increased sustainable & active travel routes in place e.g. PBSA, bus services, Santander bikes.
T	Risks: Implementing and use of new technology- Lack of training and support on new technologies may reduce effectiveness. Opportunities: Funding availability for technologies- Decarbonisation Plan outlines required costs for technology such as GSHP/ASHPs, electrical heating systems to achieve Path to Zero. Implementing and use of new technology- Working with external companies and organisations to pilot on-site solutions e.g. Crossflow turbines on CISM.
L	Risks: Staff awareness and knowledge- Loss of technical knowledge with staff leaving the University. Enforcement- Potential costs associated with enforcement action.
E	Risks: No new risks presented. Opportunities: Resource availability- Opportunity to use and generate renewable energy. Green alternatives and schemes becoming more available e.g. chemical and waste initiatives. Location- Increased work with grounds to encourage local species onto campus (e.g. orchids where mowing has stopped).

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7. Recommendations based on Management Review

- TBC