



PRIFYSGOL  
**BANGOR**  
UNIVERSITY

## Environmental Management System

### Objectives and Targets 2020/2021

<b>Document Reference</b>	BUEMS / Objectives and Targets
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<b>Author</b>	L.Shepherd, Campus Environmental Performance Team
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<b>ISO 14001:2015 Clauses</b>
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5.3 (b); 6.1.4; 6.2.1; 6.2.2; 8.1; 9.1.1
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**Approved by the University's Executive**

**Date: 10<sup>th</sup> November 2020**

## Bangor University Environmental Objectives, Targets & Monitoring

1st August 2020 - 31st July 2021

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Approved: SSG & Executive (Uncontrolled When Printed)

Each action point will be monitored by the action owner throughout the academic year, with reporting provided to SSG. Any additional resource implications required will be assessed by the action owner and funding sought where appropriate. Progress will be reported to the SSG and University Executive through the Annual Report.

\*Due to ongoing restructuring within the University, the responsibility for all targets has been accepted by the Sustainability Strategy Group until it is possible to delegate responsibilities to other teams/members of staff

Objective	Target	Status	Responsibility/Resources/Threats	Measure including Source	Evaluation Methods/Comments	Frequency of Monitoring
T1	Ensure compliance with all relevant legislation and obligations associated with our activities and prevent the pollution of the natural environment and demonstrate compliance		Sustainability Strategy Group*  <u>Resources</u> <ul style="list-style-type: none"> <li>• Audits, reviews and inspections of documentation, processes and sites</li> <li>• Cedrec – authoritative source of legislative information and updates</li> <li>• Professional colleagues and the EMS</li> </ul> <u>Threats to target:</u> <ul style="list-style-type: none"> <li>• Restructuring and loss of qualified/knowledgeable staff</li> <li>• Outsourcing and lack of supervision of contractors</li> <li>• Lack of knowledge and understanding at local level</li> </ul>	<u>Radiation</u> <ul style="list-style-type: none"> <li>• Outcomes of external audits by RPA and by Natural Resource Wales (pass/qualified-pass/fail)</li> </ul> <u>NRW Licenses and authorisations</u> <ul style="list-style-type: none"> <li>• EMS auditing and inspection schedules</li> </ul> <u>Contractor Control</u> (third-party duties) <ul style="list-style-type: none"> <li>• PACS internal contract management systems for compliance</li> </ul>	Demonstrate compliance and systems to ensure compliance, as: <ol style="list-style-type: none"> <li>i. Did we achieve the target?</li> <li>ii. Do we understand how we achieved the results?</li> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ol>	The EMS and the audit schedule will deliver throughout the year, with an annual review against this target.

			<ul style="list-style-type: none"> <li>• Fly-tipping and acts of others outside our control</li> <li>• Lack of resources/funding</li> </ul> <u>Impacts of not achieving:</u> <ul style="list-style-type: none"> <li>• Prosecution</li> <li>• Breach of licenses</li> <li>• Failures against ISO14001:2015</li> <li>• Bad publicity</li> </ul>	<ul style="list-style-type: none"> <li>• EMS Auditing and inspection schedules</li> </ul> <u>Fly-tipping and acts of others outside our control</u> <ul style="list-style-type: none"> <li>• University security systems and awareness</li> </ul>		
T2	<p>Manage waste through reduction, re-use, recycling and energy recovery</p> <p>- Achieve 62% reuse and recycling by July 2021</p> <p>- Achieve 70% reuse and recycling by July 2025</p>		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• Staff time</li> <li>• Data from waste collectors/contractors – tonnages and percentages</li> <li>• HESA data</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Restructuring and loss of qualified/knowledgeable staff</li> <li>• Inconsistency of service – including contract management</li> <li>• Lack of staff time</li> <li>• Lack of data</li> <li>• Lack of consistency in collecting and reporting waste streams</li> <li>• Lack of resources/funding</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Financial</li> <li>• Reputational</li> <li>• Visual</li> </ul>	<p>Provided by waste carriers:</p> <p>a) Overall tonnages of waste produced</p> <p>b) Tonnages of waste reused and percentage</p> <p>c) Tonnages of wastes recycled and percentages</p>	<p>i. Did we achieve the target?</p> <p>ii. Do we understand how we achieved the results?</p> <p>iii. Could we have done more?</p> <p>iv. Is a future target still necessary?</p> <p>v. Are there any foreseeable challenges in the future?</p> <p>vi. How have we communicated our target and performance?</p>	Annually
T3	<p>Minimise resource consumption of:</p>		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• AMMT system</li> </ul>	<p>a) kWh per m<sup>2</sup> per useable floor area and FTE for staff/students – as per HESA submission</p>	<p>i. Did we achieve the target?</p> <p>ii. Do we understand how we achieved the results?</p>	Annually

<p>a) Energy – Reduce energy use by 15% compared to 2018/19, as a function of i) m2 useful floor area and ii) FTE students &amp; staff</p>	<ul style="list-style-type: none"> <li>• Billing access</li> <li>• HESA data</li> <li>• Estates records</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Restructuring and loss of qualified/knowledgeable staff</li> <li>• Weather extremes</li> <li>• Increased energy intensity of research activities</li> <li>• Energy theft</li> <li>• Failure of monitoring equipment</li> <li>• Lack of resources/funding</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Financial</li> <li>• Reputational</li> </ul>		<p>iii. Could we have done more? iv. Is a future target still necessary? v. Are there any foreseeable challenges in the future? vi. How have we communicated our target and performance?</p>	
<p>b) Water – Reduce water consumption by 3.5% compared to the previous year, as a function of i) m2 useful floor area and ii) FTE students &amp; staff</p>	<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• AMMT system</li> <li>• Billing access</li> <li>• HESA data</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Restructuring and loss of qualified/knowledgeable staff</li> <li>• Weather extremes</li> <li>• Water leakage/loss</li> <li>• Increased water intensity of research activities (cooling)</li> <li>• Failure of monitoring</li> <li>• Lack of useable data</li> <li>• Lack of resources/funding</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Financial</li> <li>• Reputational</li> </ul>	<p>a) cubic metres of water per useable floor area and FTE for staff/students – as per HESA submission</p>	<p>i. Did we achieve the target? ii. Do we understand how we achieved the results? iii. Could we have done more? iv. Is a future target still necessary? v. Are there any foreseeable challenges in the future? vi. How have we communicated our target and performance?</p>	<p>Annually</p>

T4	a) Ensure Travel Planning and Sustainable Travel are a key consideration in development of the Estates Strategy/estate planning	<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• Communications</li> <li>• Budget (i.e. for bike racks, subsidised buses, car charging)</li> <li>• Plan for monitoring travel in a meaningful way</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Restructuring and loss of qualified/knowledgeable staff</li> <li>• Lack of funds to implement measures</li> <li>• Lack of buy-in/support</li> <li>• Lack of plan</li> <li>• Insufficient communication or collaboration</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Reputational</li> <li>• Impacts on carbon targets</li> </ul>	<p>Documentary evidence of the inclusion of sustainable travel planning within the Estates Strategy and related plans and proposals</p> <p>Documentary evidence of the discussions and reasoning around decisions related to sustainable transport</p>	<ol style="list-style-type: none"> <li>Did we achieve the target?</li> <li>Do we understand how we achieved the results?</li> <li>Could we have done more?</li> <li>Is a future target still necessary?</li> <li>Are there any foreseeable challenges in the future?</li> <li>How have we communicated our target and performance?</li> </ol>	Annually
	b) Work with Finance to develop a method of accounting for business travel related emissions that accurately represents the extent of business travel and can provide non-financial data for environmental reporting. Establish a baseline of emissions for 2020/21	<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• Agresso (monitoring of mileage)</li> <li>• Aberconwy Vehicle Hire Data</li> <li>• Budget (i.e. for bike racks, subsidised buses, car charging)</li> <li>• DEFRA Conversion factors</li> <li>• Staff time</li> <li>• Other data collection systems/platforms as identified</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Restructuring and loss of qualified/knowledgeable staff</li> </ul>	<p>Functional methodology for accounting for business travel emissions with the buy-in/support of required departments</p> <p>Documentary evidence of discussions and planning for the development of the methodology</p>	<ol style="list-style-type: none"> <li>Did we achieve the target?</li> <li>Do we understand how we achieved the results?</li> <li>Could we have done more?</li> <li>Is a future target still necessary?</li> <li>Are there any foreseeable challenges in the future?</li> <li>How have we communicated our target and performance?</li> </ol>	Annually

			<ul style="list-style-type: none"> <li>• Lack of buy-in/support</li> </ul> <u>Impacts of not achieving:</u> <ul style="list-style-type: none"> <li>• Reputational (poor perceptions by students/staff/public, poor performance in sustainability/environmental assessments, falling behind competitors)</li> <li>• Financial (no cost saving)</li> <li>• Not minimising environmental impacts or taking action to tackle the climate emergency (link to reputational impact)</li> </ul>			
T5	<p>Net-zero by 2030 (Scope 1 &amp; 2) 2020/21 Target</p> <p>- Reduce Scope 1 &amp; 2 emissions by 20% compared to 2018/19</p>	<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• Billing and/or AMMT Data (Gas, Elec, Water)</li> <li>• Purchase Records (Oil, LPG, Vehicle Fuel)</li> <li>• DEFRA Conversion factors</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Increased carbon intensity of grid electricity</li> <li>• Weather extremes</li> <li>• Lack of buy-in/support/investment</li> <li>• Increased carbon/energy intensity of operations</li> <li>• Lack of sufficient data</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Reputational impact</li> <li>• Increased costs (no saving on utility bills, Carbon taxes)</li> <li>• Not minimising environmental impacts</li> </ul>	<p>Total Scope 1 &amp; 2 emissions in tonnes CO<sub>2</sub>e calculated using DEFRA conversion factors and data on Fuel use (electricity, gas, LPG, oil)</p> <p>Electricity data: AMMT &amp; Supplier Gas Data: AMMT &amp; Supplier LPG: Delivery notes Oil: Delivery notes</p>	<ol style="list-style-type: none"> <li>Did we achieve the target?</li> <li>Do we understand how we achieved the results?</li> <li>Could we have done more?</li> <li>Is a future target still necessary?</li> <li>Are there any foreseeable challenges in the future?</li> <li>How have we communicated our target and performance?</li> </ol>	Annually	

			<ul style="list-style-type: none"> <li>Impacts Sustainability League results</li> </ul>			
T6	a) Promote biodiversity conservation and improvement across the University estate		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>Staff Resources/Time</li> <li>Horticultural supplies, machinery, labour</li> <li>Publicity/ interpretation</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>Lack of time</li> <li>Lack of resources</li> <li>Lack of communication</li> <li>Other priorities</li> <li>Restructuring and loss of qualified/knowledgeable staff</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>Reduction in biodiversity across the Estate</li> <li>Reputation</li> <li>Missed opportunities to influence new infrastructure and partnerships with local communities</li> <li>Increased resource costs through intensive land management</li> </ul>	<p>Monitoring biodiversity awareness and promotion:</p> <ul style="list-style-type: none"> <li>Biological surveys and monitoring</li> <li>Questionnaires and surveys to staff, students and visitors to the University, social media stats</li> </ul>	<ol style="list-style-type: none"> <li>Did we achieve the target?</li> <li>Do we understand how we achieved the results?</li> <li>Could we have done more?</li> <li>Is a future target still necessary?</li> <li>Are there any foreseeable challenges in the future?</li> <li>How have we communicated our target and performance?</li> </ol>	Annually
	b) Increase unimproved grassland/wildflower meadow areas across the University estate		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>Machinery, seed, green hay from suitable recipient sites, contractors, staff &amp; students</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>Lack of time</li> </ul>	<p>Square metres of new meadow created using site maps</p>	<p>Botanical species surveys</p>	Annually

			<ul style="list-style-type: none"> <li>Resources</li> <li>Insufficient donor sites</li> <li>Adverse weather</li> <li>Restructuring and loss of qualified/knowledgeable staff</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>Reputational</li> <li>No improvement in biodiversity across site</li> <li>No reduction in workload for grounds team (mowing)</li> <li>No cost saving</li> </ul>			
	c) Create a University Biodiversity Action Plan		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>Communications</li> <li>Budget</li> <li>Staff and Student Volunteer time (including PACS staff)</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>Lack of time to develop and begin to implement a Plan</li> <li>Lack of funds to implement measures</li> <li>Lack of buy-in/support</li> <li>Insufficient communication platforms</li> <li>Restructuring and loss of qualified/knowledgeable staff</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>Reputational</li> <li>Missed opportunities</li> </ul>	Publication and approval of a Biodiversity Action Plan	<ul style="list-style-type: none"> <li>i. Did we achieve the target?</li> <li>ii. Do we understand how we achieved the results?</li> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	Annually
T7	a) Produce an accurate and detailed analysis of Procurement-related (Scope		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p>		<ul style="list-style-type: none"> <li>i. Did we achieve the target?</li> </ul>	Annually



	3)* emissions to be discussed in detail by SSG		<ul style="list-style-type: none"> <li>• Staff resources/time</li> <li>• Advice and guidance from the sector</li> <li>• Expert advice</li> <li>• Specialist software/service</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Other priorities</li> <li>• Lack of staff time</li> <li>• Lack of required data</li> <li>• Lack of buy-in/support</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Reputational</li> <li>• Missed cost savings</li> <li>• Deficiencies in reporting</li> <li>• Loss of standing in sustainability rankings</li> </ul>		<ul style="list-style-type: none"> <li>ii. Do we understand how we achieved the results?</li> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	
	b) Continue to ensure sustainability is embedded within the procurement process and report to SSG on how this is being achieved		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• Staff resources/time</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>• Other priorities</li> <li>• Lack of resources</li> <li>• Not informed of relevant high value projects/ contracts (CBs)</li> <li>• Not informed early enough of upcoming contracts (SRAs)</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>• Missed opportunities</li> <li>• Reputational</li> </ul>	<p>Figures on number of procurement exercises undertaken and the number with specific sustainability requirements</p> <p>Case study examples of best practice</p>	<ul style="list-style-type: none"> <li>i. Did we achieve the target?</li> <li>ii. Do we understand how we achieved the results?</li> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	Annually
T8	a) Increase level of engagement with environmental and sustainability		<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>• Staff time</li> </ul>	<p><b>**Pending Outcome of Restructuring**</b></p> <p>In the likely event that sustainability</p>	<ul style="list-style-type: none"> <li>i. Did we achieve the target?</li> <li>ii. Do we understand how we achieved the results?</li> </ul>	Annually

	messages/campaigns/content on digital platforms	<ul style="list-style-type: none"> <li>Marketing &amp; Communications</li> <li>University Website (including the Environment and Sustainability Webpages)</li> <li>Social Media channels analytic data – Twitter / Facebook / Instagram / Snapchat</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>Lack of resources</li> <li>Lack of buy-in</li> <li>Lack of engagement with social media / website</li> </ul> <p><u>Impacts of not achieving:</u></p> <ul style="list-style-type: none"> <li>Reputational</li> <li>Financial</li> <li>Increase or no difference in waste and energy consumption</li> </ul>	communications will need to be passed to the central communications and marketing team, it will be necessary to determine how engagement with these messages can be measured and reported	<ul style="list-style-type: none"> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	
	b) Increase student awareness of environmental and/or sustainability related events, as measured by the Undeb Student Survey	<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>Staff time</li> <li>Undeb collaboration</li> </ul> <p><u>Threats to target:</u></p> <ul style="list-style-type: none"> <li>Lack of time and resources</li> <li>Failure of collaboration</li> <li>Lack of sustainability events due to restructuring</li> </ul>	<p>Student awareness of specific sustainability-related events/occurrences as measured by questions in the Undeb Student Survey</p> <p>Comparability with previous years may be hard as certain questions will no longer be relevant due to the closure of the Sustainability Lab.</p>	<ul style="list-style-type: none"> <li>i. Did we achieve the target?</li> <li>ii. Do we understand how we achieved the results?</li> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	
T9	Promote the UNSDG curriculum mapping exercise across schools and colleges, and work with at	<p>Sustainability Strategy Group*</p> <p><u>Resources</u></p> <ul style="list-style-type: none"> <li>Staff Resources/Time</li> </ul>	Number of courses/modules assessed	<ul style="list-style-type: none"> <li>i. Did we obtain a baseline?</li> <li>ii. Do we understand how we achieved the results?</li> </ul>	Annually

	least one additional school to map their curriculum		<ul style="list-style-type: none"> <li>• Staff buy-in</li> <li>• Course/Module information</li> </ul> <u>Threats to target:</u> <ul style="list-style-type: none"> <li>• Other priorities</li> <li>• Lack of buy-in</li> <li>• Lack of resources</li> <li>• Restructuring and loss of qualified/knowledgeable staff</li> </ul> <u>Impacts of not achieving:</u> <ul style="list-style-type: none"> <li>• Reputational</li> <li>• Drop in league tables</li> <li>• Missed marketing opportunity</li> </ul>	Number of Schools taking up the mapping exercise	<ul style="list-style-type: none"> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	
T10	Ensure environmental protection and the principles of sustainability are central within the Estate Strategy and that the achievement of the other EMS targets informs the objectives of any estate developments		<p>Sustainability Strategy Group*</p> <u>Resources</u> <ul style="list-style-type: none"> <li>• Staff Resources/Time</li> <li>• Relevant contractor information</li> <li>• Monitoring equipment</li> </ul> <u>Threats to target:</u> <ul style="list-style-type: none"> <li>• Other priorities</li> <li>• Lack of buy-in/support</li> <li>• Inadequate provision of data</li> <li>• Not involved early enough</li> </ul> <u>Impacts of not achieving:</u> <ul style="list-style-type: none"> <li>• Not minimising environmental impacts</li> <li>• Increase resource consumption</li> <li>• Increased resource costs</li> <li>• Ongoing impacts of inefficient buildings</li> </ul>	Clear evidence of the central role of sustainability and specific actions/measures for addressing or supporting action on other EMS targets in documentation, plans and proposals related to the Estates Strategy and the ongoing maintenance and development of the University estate.	<ul style="list-style-type: none"> <li>i. Did we achieve the target?</li> <li>ii. Do we understand how we achieved the results?</li> <li>iii. Could we have done more?</li> <li>iv. Is a future target still necessary?</li> <li>v. Are there any foreseeable challenges in the future?</li> <li>vi. How have we communicated our target and performance?</li> </ul>	Annually