



# Sustainability Action Plan Progress Report 2021

MARCH 2022



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**Welcome to the first progress report for QUT's Sustainability Action Plan.**

**This report provides a snapshot and a summary of the actions QUT has taken during 2021 to achieve its sustainability goals.**

For full details on all actions listed in the Sustainability Action Plan (SAP) email [sustainability@qut.edu.au](mailto:sustainability@qut.edu.au)

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# The SDGs – What are they and why are they important?

The Sustainable Development Goals (SDGs) were adopted by all United Nations Member States in 2015 in the *2030 Agenda for Sustainable Development*. The agenda provides a blueprint for peace and prosperity for people and the planet, now and in the future. Click on the 17 SDG icons to find out in more detail what each of the goals is seeking to achieve.

QUT currently reports on progress against 13 of these goals annually, as part of the Times Higher Education (THE) Impact Rankings. It is important to note that this progress report simply identifies where the Sustainability Action Plan goals align with the SDGs, rather than where QUT reports on the SDGs through the Impact Rankings process.




# Sustainability progress at a glance


**LEGEND**



 NOT STARTED


 IN PROGRESS



 COMPLETED






 **CARBON**  
Carbon emissions down 20%  
*When compared to 2019*






 **ENERGY**  
Energy consumption down 21%  
*When compared to 2018*


 **TRANSPORT and TRAVEL**  
Active travel up 21%  
*When compared to 2020*






 **WATER**  
Water consumption down 920 litres per person from baseline of 5410 litres





 **WASTE**  
Waste to landfill down 40% and 782 tonnes of IT equipment diverted from landfill






 **BIODIVERSITY**  
93% of nesting boxes on Kelvin Grove campus occupied by native fauna consistently since 2017





 **PROCUREMENT**  
DocuSign for procurement contracts implemented eliminating the need to print to sign






 **BUILT ENVIRONMENT**  
Environmentally Sustainable Design (ESD) embedded in QUT design guidelines




 **CLIMATE ADAPTATION and RESILIENCE**  
Emergency Management Plan under review

 **ENVIRONMENTAL COMPLIANCE**  
Zero notifiable incidents
















 **EDUCATION for SUSTAINABILITY**  
5-year Education for Sustainability Project started


















 **RESEARCH for SUSTAINABILITY**  
\$5.2M funding to upgrade the Mackay Renewable Biocommodities Pilot Plant














 **ENGAGEMENT and BEHAVIOUR CHANGE**  
Over 2000 staff and students engaged in Sustainability Week events




Progress	Sustainability Theme	Related Sustainable Development Goals	Sustainability Targets	Progress towards targets
 <b>IN PROGRESS</b>	<b>CARBON</b> 		<ol style="list-style-type: none"> <li>1. Carbon neutral by 2030 (Scope 1, 2, 3 emissions).</li> <li>2. Scope 1 and 2 emissions to zero by 2023.</li> </ol>	<ul style="list-style-type: none"> <li>• The strategy to achieve carbon neutrality by 2030 will be developed in 2022.</li> <li>• QUT reduced its net emissions by 20% of the 2019 baseline in 2021 through energy efficiency projects and procuring 7,000 Large-Scale Generation Certificates (LGC's) – equivalent to 7,000 MWh of renewable energy through its electricity supplier.</li> <li>• QUT has entered into a long-term supply agreement for 50% of electrical consumption to be supplied from a newly constructed solar farm located at Columboola, Qld by mid-2022.</li> </ul>
 <b>IN PROGRESS</b>	<b>ENERGY</b> 		<ol style="list-style-type: none"> <li>1. Reduce energy consumption by 10% from 2017/18 levels of 0.57 GJ/m<sup>2</sup> (GFA) by 2023.</li> <li>2. Maximise deployment of solar PV on campus by 2022 – see SAP – Tracking Tool 2022–2023</li> </ol>	<ul style="list-style-type: none"> <li>• Electricity consumption is currently 21% below 2018 consumption, however it is estimated that approximately 10% of the reduction is a result of COVID lockdown periods in 2020 and 2021.</li> <li>• Completion of H Block (KG) and V Block (GP) solar array in 2021. This brings total arrays to 950 kW, utilizing approximately 90% of site potential.</li> </ul>
 <b>IN PROGRESS</b>	<b>TRANSPORT and TRAVEL</b> 		<ol style="list-style-type: none"> <li>1. Measure travel-related emissions and develop an Emissions Reduction Strategy by 2022.</li> <li>2. Reduce single occupancy car trips to campus by 10% by 2023.</li> <li>3. 5% more QUT staff and students use public transport to commute to campus by 2023.</li> <li>4. 5% more QUT staff and students use active transport to commute to campus by 2023.</li> </ol>	<ul style="list-style-type: none"> <li>• Air travel data are collected and measured, an emissions reduction strategy for travel is in development.</li> <li>• Specific trip related data not available, however an average of 340kg of carbon was saved per month by QUT staff and students sharing rides using the Liftango share ride app (Jan–Oct 2021).</li> <li>• Data for public transport use will be available in 2022 as part of the 2021 travel survey report.</li> <li>• An increase of 21% of individual users of end of trip facilities achieved in 2021 when compared to 2020. When the data is normalized for the shut-down period in 2020, the increase is 6%.</li> </ul>
 <b>IN PROGRESS</b>	<b>WATER</b> 		<ol style="list-style-type: none"> <li>1. Maintain or reduce water consumption at 0.63kL/m<sup>2</sup> GFA and 5.41kL/student(EFTSL+FTE).</li> <li>2. Increase total campus rainwater capture and storage capacity by 10% by 2023.</li> <li>3. Use 100% non-potable water (captured or recycled) for irrigation and external cleaning (wherever possible).</li> </ol>	<ul style="list-style-type: none"> <li>• In 2021 water consumption was reduced to 0.51kL/m<sup>2</sup> and 4.49kL/student and staff (EFTSL +EFT).</li> <li>• Capacity did not increase in 2021. Storage capacity will be increased as buildings are refurbished or built.</li> <li>• Non-potable water is used for irrigation and external cleaning wherever available. This is reflected in the Design Guidelines.</li> </ul>






Progress	Sustainability Theme	Related Sustainable Development Goals	Sustainability Targets	Progress towards targets
 <b>COMPLETED</b>	<b>WASTE</b> 	  	1. Reduce waste to landfill by 15% of 2018 levels by 2022.	<ul style="list-style-type: none"> <li>In Oct 2021, the reduction in waste to landfill managed by Facilities Management was tracking at 40% below 2018 waste levels. The reduction is most likely due to the reduced number of students on campus and the increased diversion rate of recyclable items managed by Facilities Management.</li> </ul>
			2. Reduce recyclables going to general waste by 5% of 2018 levels by 2021.	<ul style="list-style-type: none"> <li>There is no data for Target 2, however we do know:               <ul style="list-style-type: none"> <li>&gt; an average of 35% of waste managed by Facilities Management was diverted from landfill in 2021 (includes grease trap, comingle, paper, cardboard and green waste)</li> <li>&gt; 100% IT waste managed by Digital Business Solutions was refurbished and sold or recycled in 2021 (Jan–Sept). This equals 781,930 kg or 2,587 total devices.</li> </ul> </li> </ul>
			3. All green and back-of-house organic waste to be composted by 2021.	<ul style="list-style-type: none"> <li>Facilities Management installed organics bins in all kitchens and with retailers in 2021.</li> </ul>
			4. Understand quantity of construction waste generated and have guidelines in place to ensure correct disposal.	<ul style="list-style-type: none"> <li>For new buildings waste is managed through best practice green building guidelines identified in the Design Guidelines.</li> </ul>
 <b>IN PROGRESS</b>	<b>BIODIVERSITY</b> 		1. Develop and implement a Public Realm and Landscape Plan by 2022.	<ul style="list-style-type: none"> <li>The target date is delayed. The plan will be completed by Estate Planning by 2023.</li> </ul>
			2. Develop and implement a Tree Management Plan by 2021.	<ul style="list-style-type: none"> <li>A tree management plan was developed by Facilities Management in 2021.</li> </ul>
			3. Implement a campus biodiversity monitoring and reporting program by 2021.	<ul style="list-style-type: none"> <li>An annual audit of biodiversity is completed on both QUT campuses. 93% of the nest boxes at Kelvin Grove have been occupied by birds and possums consistently since 2017, reinforcing the importance of nest boxes as shelter for fauna within an urban setting.</li> </ul>

Progress	Sustainability Theme	Related Sustainable Development Goals	Sustainability Targets	Progress towards targets
 IN PROGRESS	<b>PROCUREMENT</b> 		<ol style="list-style-type: none"> <li>1. Roll out training to at least 200 key users and staff (annually) on sustainable procurement practices.</li> </ol>	<ul style="list-style-type: none"> <li>• QUT's procurement 101 and refresher training includes information on sustainable procurement.</li> <li>• Strategic Procurement have moved to external procurement approvals and contract signing, significantly reducing printing.</li> <li>• Strategic Procurement hosted a webinar on the benefits of embedding sustainable practices into organisations' procurement and purchasing practices as part of Sustainability Week attended by over 100 people.</li> </ul>
			<ol style="list-style-type: none"> <li>2. Achieve the priority actions identified, including visible evidence in place.</li> </ol>	<ul style="list-style-type: none"> <li>• QUT's internal approvals and tender and quotation documentation for processes above \$100,000 have been updated to cover sustainability questions.</li> </ul>
			<ol style="list-style-type: none"> <li>3. Develop an action plan for five key suppliers across QUT (including Winc) that demonstrate clear achievement of sustainable outcomes achieved through good procurement practices.</li> </ol>	<ul style="list-style-type: none"> <li>• QUT is working with a number of strategic suppliers to embed sustainable outcomes. The formalisation of this is under development.</li> <li>• This has been included in the Planning and Performance Review process as a target for the four Procurement Partners with Strategic Procurement.</li> </ul>
			<ol style="list-style-type: none"> <li>4. Develop case studies of achievements to influence additional outcomes across procurement activities.</li> </ol>	<ul style="list-style-type: none"> <li>• Currently outcomes are tracked informally and Procurement is working with Digital Business Solutions to develop a dashboard which will track sustainable outcomes.</li> </ul>
 IN PROGRESS	<b>BUILT ENVIRONMENT</b> 		<ol style="list-style-type: none"> <li>1. All new developments to be designed and built to the intent of a minimum five-star Green Star – 'Design and As Built' and aiming toward six-star Green Star rating as applicable.</li> </ol>	<ul style="list-style-type: none"> <li>• No new developments in 2021. Included in Design Guidelines.</li> </ul>
			<ol style="list-style-type: none"> <li>2. All new furniture procured for QUT will have certification from the Good Environmental Choice Australia (GECA) and/or the Australasian Furnishing Research Development Institute (AFRDI) Green Tick certification schemes or an equivalent.</li> </ol>	<ul style="list-style-type: none"> <li>• Furniture procurement project not yet started.</li> </ul>
			<ol style="list-style-type: none"> <li>3. Utilisation, flexibility and adaptation of space will be continually improved.</li> </ol>	<ul style="list-style-type: none"> <li>• A space audit was completed in 2021 to review the utilization of space following the change process.</li> </ul>
			<ol style="list-style-type: none"> <li>4. Update the University's Estate Master Plan, Asset Management Plan and Design Standards and Guidelines to reflect the targets of the Sustainability Action Plan by end 2022.</li> </ol>	<ul style="list-style-type: none"> <li>• The University's Estate Master Plan is currently being reviewed.</li> </ul>



Progress	Sustainability Theme	Related Sustainable Development Goals	Sustainability Targets	Progress towards targets
 NOT STARTED	<b>CLIMATE ADAPTATION and RESILIENCE</b> 		<ol style="list-style-type: none"> <li>1. Climate adaptation reflected in QUT's Design Standards and Guidelines.</li> <li>2. Extreme weather events reflected in Emergency Management, Counter Disaster, Crisis Management and Business Continuity Plans.</li> <li>3. Signal detection systems identified and implemented.</li> <li>4. Updated emergency communications and alert systems.</li> </ol>	<ul style="list-style-type: none"> <li>• Under review.</li> <li>• Under review.</li> <li>• Under review.</li> <li>• Under review.</li> </ul>
 COMPLETED	<b>ENVIRONMENTAL COMPLIANCE</b> 	 	<ol style="list-style-type: none"> <li>1. No notifiable environmental incidents (ongoing).</li> <li>2. 100% compliance with environmental licence, permit and approval conditions (ongoing).</li> <li>3. Year-on-year increase reporting of environmental hazards and near misses identified in the HSE Hub.</li> </ol>	<ul style="list-style-type: none"> <li>• Zero notifiable environmental incidents to November 2021.</li> <li>• No environmental licences or permits held in 2021.</li> <li>• Reporting of incidents increased from 2 to 6 in 2021.</li> </ul>
 IN PROGRESS	<b>EDUCATION for SUSTAINABILITY</b> 		<ol style="list-style-type: none"> <li>1. In 2021, establish Education for Sustainability Project, a five-year, university-wide project to inspire and support the inclusion of sustainability into curriculum.</li> <li>2. Map level of current teaching of sustainability in curriculum and implement sustainability as a 'design feature' in CourseLoop to identify units and modules.</li> <li>3. Develop university-wide interdisciplinary curriculum exploring sustainability, drawing upon the expertise from all faculties and institutes.</li> <li>4. By 2026, all QUT undergraduate degrees demonstrate (at the course or major level) that core curriculum elements enable students to develop and apply sustainability knowledge and values in their field.</li> </ol>	<ul style="list-style-type: none"> <li>• Education for Sustainability Working Group formed, chaired by the Pro Vice-Chancellor (Sustainability Strategy) and with senior representatives from every faculty, the Carumba Institute and the Education Portfolio. The working group has developed a draft Education for Sustainability Project Plan.</li> <li>• Sustainability has been included as a design feature in CourseLoop, which supports the mapping of units that include sustainability.</li> <li>• Curriculum Quality and Standards has also developed PowerBI dashboards using CourseLoop data to map QUT courses and units against the United Nations Sustainable Development Goals (SDGs).</li> <li>• This action is being progressed through the broader QUT Curriculum Development Project.</li> <li>• Faculties will undertake the majority of the work of including sustainability in the curriculum from 2022 to 2026 as a part of their business-as-usual curriculum review and planning processes, with support from the Learning and Teaching Unit.</li> </ul>

Progress	Sustainability Theme	Related Sustainable Development Goals	Sustainability Targets	Progress towards targets
 IN PROGRESS	<b>RESEARCH for SUSTAINABILITY</b> 		<ol style="list-style-type: none"> <li>1. Establish the first phase and develop strategy for a renewable energy hydrogen pilot plant.</li> <li>2. Demonstrate a toluene electrochemical hydrogenation procedure with industry partners.</li> <li>3. Develop and implement sustainable practices in agriculture.</li> <li>4. Contribute towards the creation and maintenance of sustainable environments for humans and other life forms.</li> <li>5. Develop innovative ways to reduce waste and communicate to industry and schools.</li> <li>6. Ensure strong links between QUT's sustainability research community and campus operations.</li> </ol>	<ul style="list-style-type: none"> <li>• On hold.</li> <li>• Target 2 was cancelled; however, the Centre for Clean Energy Technologies and Practices had a successful year, playing a significant role in five Cooperative Research Centres aimed at advanced, clean or low emissions energy practices.</li> <li>• QUT, AgriMix Pastures and Meat and Livestock Australia entered into a \$2.2M research partnership to increase soil carbon across the vast pastoral lands of Australia.</li> <li>• The Federal Government announced QUT Mackay Renewable Biocommodities Pilot Plant would receive \$5.2 million in funding through the Regional Recovery Partnerships Program.</li> <li>• QUT expanded its partnership with the US Pacific Northwest National Laboratory (PNNL), with Professor Sagadevan Mundree jointly appointed a Senior Scientist with PNNL to develop a proof of concept for drought resistant bioenergy crops over the next five years.</li> <li>• QUT researchers received a \$320K Landcare Led Bushfire Recovery Grant to establish an AI conservation hub that will scale up efforts to monitor koalas and other endangered animals using drones, infrared imaging, AI and citizen science.</li> <li>• The Digital Circular Food Economy project (funded by Lendlease, QUT and the Food Agility CRC) has engaged weekly with school students and the broader community to develop a local food system that provides nutritious food locally and diverts food waste from landfill.</li> <li>• QUT researchers and operational staff are collaborating on waste initiatives, sustainable lab processes and equipment, and sustainable food policy. The PVC (Sustainability Strategy) and Sustainability Manager have served as a bridge between the academic community and operational staff.</li> </ul>

Progress	Sustainability Theme	Related Sustainable Development Goals	Sustainability Targets	Progress towards targets
 IN PROGRESS	<b>RESEARCH for SUSTAINABILITY (continued)</b> 		7. Showcase the work of QUT research centres through engagement events and promotion of sustainability research.	<ul style="list-style-type: none"> <li>Research centre work was showcased via Sustainability Week, the Research in Focus image competition, QUT media releases, QUT sustainability webpage and the Research Update newsletter.</li> <li>QUT was a hosting consortium partner for the inaugural Sustainability Research and Innovation Congress (SRI2021), the world's first transdisciplinary gathering in sustainability.</li> </ul>
			8. Translate QUT research into practice, both internally and externally.	<ul style="list-style-type: none"> <li>Queensland start-up BlockTexx is building a commercial-scale facility that will initially recycle 4,000 tonnes of fabric a year using a technology developed with QUT researchers. Every tonne of textile recycled offsets around 30 tonnes of CO2 equivalent.</li> </ul>
 COMPLETED	<b>ENGAGEMENT and BEHAVIOUR CHANGE</b> 		1. Develop an annual Engagement and Behaviour Change Program.	<ul style="list-style-type: none"> <li>Sustainability Week engaged 2000 + staff and students in events and had 300,000 impressions on social media.</li> <li>Sustainability initiatives were promoted through QUT social media, QUT News, HiQ Student News, Facebook and to Green Champions via Microsoft Teams and email. Information included QuestaGame, Sustainability Week events, thinking sustainably, Green Caffein cup swap program and waste management.</li> </ul>
			2. Update Sustainability website to align with Sustainability Action Plan	<ul style="list-style-type: none"> <li>A sustainability video was developed for the website.</li> <li>The SAP was added to the Sustainability website.</li> <li>Further website updates are required in 2022.</li> </ul>