



Sustainability Report 2020





**“The impacts of COVID-19
have presented us with a rare
opportunity to reset and lead
a green recovery.”**

UTS Vice-Chancellor Professor Attila Brungs

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UTS acknowledges the Gadigal People of the Eora Nation, the Boorooberongal People of the Dharug Nation, the Bidiagal people and the Gamaygal people upon whose ancestral lands our university stands. We would also like to pay respect to the Elders both past and present, acknowledging them as the traditional custodians of knowledge for these lands.



Our commitment
to sustainability

Statement from the Vice Chancellor



Professor Attila Brungs
Vice-Chancellor and President

2020 was a challenging year for everyone. Here at UTS we have weathered the pandemic better than many, in no small part due to the efforts, resilience and commitment of our staff and students. I am so proud and grateful for the efforts of the UTS community. Together we pivoted to new ways of teaching, learning, researching and working. Despite the shocks and impacts associated with the pandemic we had some impressive achievements this year.

UTS researchers continued to be recognised for their world leading work, breaking new ground in the sustainability arena. Dr Qilin Wang's Eureka Prize for his work improving waste water treatment, Professor David Booth and his team winning a further Eureka prize for their work on coral reefs, and Dr Jen Mathews recognised as a Superstar of STEM for her work on healthy oceans – just to name a few. At UTS, innovation is part of who we are and I was delighted to see so many projects this year from the UTS Start-ups community have sustainability at their core.

It was also a good year for partnerships and collaboration. Researchers in the C3 science team worked on an exciting project with local brewers Young Henrys using algae to help reduce the carbon footprint of beer manufacturing. The UTS Business School and Institute for Sustainable Futures collaborated with the Australia Sustainable Finance Initiative to develop a sustainable roadmap for the finance sector. Our global rankings continued to grow with UTS ranked 133rd in the QS World Rankings, and the leading 'young' university in Australia for the 5th year in a row.

I am always most inspired by our people, the students and staff who do amazing things each and every day. And this year was no different. In January while the nation grappled with the devastating bushfires and associated loss of life, property and nature, staff and students organised a bushfire fundraiser – additional to the university's official assistance program. It's this spirit of collaboration and engagement that epitomises the UTS spirit.

So despite the challenges of 2020 it was also a year of achievement and I look forward to working with all members of the UTS community on continuing to develop solutions to help Australia and the world bounce back stronger, fairer, and more sustainable.

Statement from the Head of Sustainability



Danielle McCartney
Head of Sustainability

This year we continued to implement the *UTS Sustainability Strategy 2017 – 2020*. The impact of the COVID-19 pandemic manifested itself in complex and surprising ways. From a sustainability perspective less people on campus, building closures, and less activity had a positive impact on some key sustainability indicators. General waste fell by 35% and the move to online learning and digital exams saw paper consumption down 49%!

Despite the pandemic sustainability engagement with staff and students remained solid, with a 55% fall in on-campus events being offset with a rise in online engagement – a 50% increase in visits to the website, 45% increased attendance in online events and 21% increase in subscriptions to the newsletter.

Our transition to renewable energy continued with the installation of a new 100 kw solar PV system on the roof of the Haberfield rowing club. We also installed a native bee hive on the north facing library roof garden as part of the B&B Highway project improving habitat and biodiversity in the city.

I am especially proud of our Green Gown award win, recognising the university's efforts with circular waste food recycling – separating food waste, processing it on campus into soil conditioner which is sent to an organic garlic farm with the garlic returning to UTS. The circular economy in action!

2020 was also a big year for social sustainability, from outreach events run by the Centre of Social Justice and Inclusion to the Centre for Business and Social Innovation report on social impact investing. One of my favourite initiatives this year was the Newtown Blessing box. Two students from UTS Start-ups initiated a charity food pantry in their neighbourhood during the height of COVID-19 lockdowns, providing free food and essentials to anyone struggling.

Finally, I'd like to thank staff and volunteers in the Sustainability team, members of the UTS Sustainability Steering Committee, the senior executive, and all the staff and students who help to champion sustainability. Thank you for your continued support and contribution.



About UTS

The University of Technology Sydney (UTS) is a dynamic and innovative university in central Sydney. UTS has a distinct model of learning, strong research performance and a leading reputation for engagement with industry.

With over 46,000 students (35,760 EFTSL) and 4,405 staff, UTS offers over 510 undergraduate and postgraduate courses across disciplines such as architecture, built environment, business,

communication, design, education, engineering, information technology, international studies, law, midwifery, nursing, pharmacy and science. One of the University's five values is to sustain our local and global environment, organisational health and our ability to create a positive, viable future. The university is committed to integrating sustainability principles into its key functional areas of teaching and learning, research, operations, and community engagement.



Highlights and awards

2020 highlights

Research



Ranked 133 in
QS World Rankings



Award winning
women researchers



Innovative
algae and beer
research project



Big year for
sustainable energy
research partnerships

Teaching and Learning



7

Student
living lab projects



Move to digital
exams saves

8 million

sheets of paper



3

Student Startups with
sustainability at their core



Free computers given to

100

disadvantaged
school students

Campus Operations



100 kw solar PV system
on the roof of the
Haberfield rowing club



Water consumption
down

11%



Native bee hive
installed



GHG emissions
down

19%

Engagement



Green Impact program
- 10 teams, undertaking
257 sustainability
actions



Think Sustainability
podcast has

128,900

listens



Staff initiated bushfire
fundraiser
raises over

\$5000



Online engagement
up

45%

Awards and recognition



Associate Professor Dena Fam and team members with their ACTS Green Gown Award.

Winners

- ACTS Green Gown Award, Outstanding Leadership Team category for the cross-campus circular economy food waste processing project.
- Australian Museum Eureka Prize, Outstanding Early Career Researcher category – Dr Qilin Wang for his work improving wastewater treatment.
- Australian Museum Eureka Prize, Excellence in Interdisciplinary Scientific Research category – Professor David Booth for his work on improving coral reef resilience.
- L’Oreal UNESCO For Women, and TIME Magazine Next Generation Leader – Dr Emma Camp for her work on resilient corals.
- CBSI Research Impact Award, Team Award category – UTS Institute for Sustainable Futures and the UTS Centre for Business and Social Innovation for their project ‘Australia and EU Roadmap for Sustainable Finance.

Finalist

- ACTS Green Gown Award of Excellence, Student category – Miranda Crossley for her work on climate engagement and activism.
- AFR Higher Education Awards, Sustainability category for Building 2’s Plastic-Free Food Court.



Farmer Michelle Zeibots with garlic crop.

UTS is facilitating the circular economy by processing approximately 50 tonnes per year of food waste into soil conditioner, sending it to local farming communities to grow garlic. Some of the garlic returns to UTS for use on campus. A diverse cross faculty and industry project team involved academic partners from the Institute for Sustainable Futures, UTS Design School, Facilities Management (including cleaners and operations staff), industry partners (Closed Loop, local cafes, and Hartley Vale Garlic), and government (NSW EPA). The team worked over three years to create a functional circular economy model sending nutrients from UTS food waste to farming communities to support agriculture. The project has been used by researchers and teaching staff to demonstrate closed loop circular economy principles to students. The project was recognised with an ACTS Green Gown Award in 2020.



United Nations SDGs

The United Nations Sustainable Development Goals (SDGs) provide a framework for action on sustainability.

The 17 goals have been designed to help guide governments, businesses, and the community towards creating a more just and sustainable world. Within the 17 high level goals are 169 targets to guide and evaluate progress.

At UTS we have been progressively working the SDGs into our work. In 2016 UTS was one of the first universities in the Asia Pacific region to become a signatory to the University Commitment to the SDGs. In 2017 the UTS Institute for Sustainable Futures (ISF), in collaboration with Australasian Campuses Towards Sustainability (ACTS) produced a Guide for Universities Getting Started with the SDGs. The same year, we began to incorporate the SDGs into the university's research and teaching. In 2019 UTS signed the UN Global Compact, the world's largest corporate sustainability initiative, with a mission to support action on the SDGs. As a signatory and member of

the Global Compact Network Australia (GCNA), the UTS Business School works to deepen engagement with future business leaders on the SDGs and responsible and sustainable management.

In 2020 we established an internal SDG Working Group to guide our work on the SDGs across the organisation, and the Climate Change Cluster Research Centre began mapping and aligning their work against the SDGs.

This year's Sustainability Report includes individual SDG icons throughout the Report indicating projects and work that align with individual SDGs.





“Innovations from RACE for 2030 have the potential to transform our energy systems and drive a customer-centred clean energy transition.”

**Kate McGrath,
Deputy Vice-Chancellor (Research)**



Teaching and learning

Teaching and learning

Teaching and Learning in 2020 was atypical. The COVID-19 pandemic resulted in a pivot to home-based working and online learning. While there were challenges we also saw some surprising sustainability benefits - for students, teachers, and the organisation. Less time travelling to and from campus meant more time for personal activities and less carbon miles. Working locally supported local economies and communities, and the move to online exams saw a significant reduction in paper usage. Looking forward, it is not yet clear what changes will become permanent but without doubt 2020 was a catalyst for tertiary education to be more decentralised with more remote online working.

LX Lab

The LX Lab is a place for UTS teaching staff to share ideas, advice and support. Their role in helping staff adapt to online teaching was pivotal this year. As part of this transition they ran a blog to help ensure sustainability was not forgotten or deprioritised. The blog provides support to help find ways for teaching staff to incorporate good sustainability practice into the curriculum by providing them with tools, resources and organisational capacity.

Student living lab projects

Two student teams from the *Design Thinking for Social Innovation* subject undertook projects using the campus as a living lab, exploring ways to improve waste management in Building 2's Plastic-Free Food Court. The teams examined problems with bin contamination and developed mechanisms to better engage students and drive behaviour change. Another postgraduate engineering project had students undertake a comprehensive audit and assessment of the university's environmental management approach using the Japanese ASSC assessment system, and a group of Bachelor of Creative Intelligence and Innovation students undertook a summer Honours project looking at green innovations on campus. Seven students in this group explored different opportunities to improve campus systems including;

- green procurement defaults
- increasing sustainability in the curriculum
- better space utilisation
- opportunities posed by COVID-19
- how a transdisciplinary approach could improve sustainability outcomes.

Student entrepreneurs

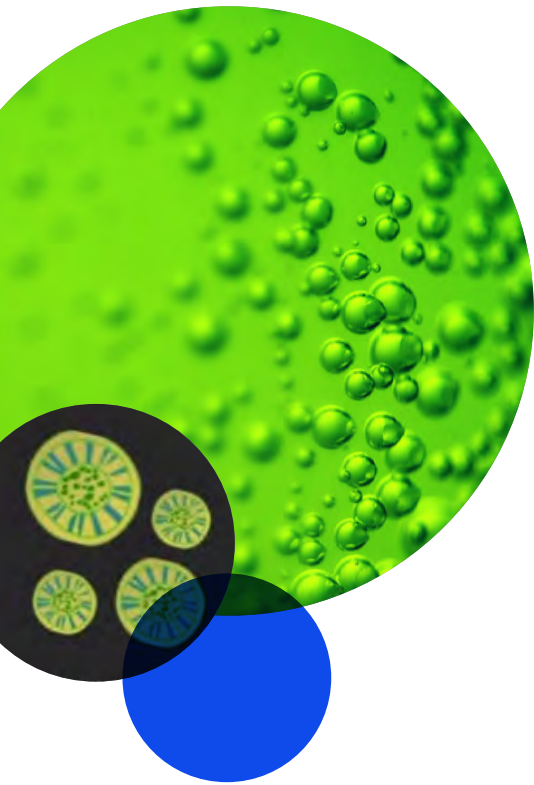
UTS Startups identifies and supports entrepreneurs to bring their ideas to fruition. Many of these projects have a strong sustainability theme and the UTS Startups end of year awards this year included categories for Most Sustainable, Best Social Impact and the Community Morale Award designed to recognise selfless contribution and a sense of giving-back to the community. Projects included;

Newtown Blessing Box (winner of the Community Morale Award), where members of the community leave food and offers of help for people in need.

Blackgoat wetsuits, surfing gear made from plant-based material rather than the traditional oil-based neoprene.

Zenmove, a cross between Uber and Airtasker helping people moving house to find willing packers and helpers.





Green Light Accelerator Program

The **Deep Green Biotech Hub** runs the Green Light Accelerator Program, the first of its kind in the world, supporting budding entrepreneurs to develop new ideas and projects incorporating algae-based material. Projects this year included;

Ucarryit, workshops and algae kits for school teachers to use to engage students in environmental education.

Algatex, incorporating algae in sustainable textiles and fashion.

HasAlgae, developing algae for sustainable vegan based foods.



Talking water

This year's annual Zunz Public Lecture *Water for a hot thirsty city* hosted by the Faculty of Engineering and IT saw UTS academics and partners from industry explore the topic of urban water infrastructure in a climate change impacted world. With floods and droughts happening with greater intensity the lecture analysed how cities might need to adapt their water infrastructure to cope.



Supporting school students

UTS runs a program with schools in Western Sydney supporting year 11 and 12 students from socially disadvantaged backgrounds. These students participate in our U@Uni program and some go on to study tertiary education as the first person in their family ever to attend university. Approximately one third of school students from low income households do not have access to a computer or internet at home and these students were especially disadvantaged during the COVID-19 pandemic. To help, UTS provided 100 free re-conditioned laptops to students in the U@Uni program.



Social Sustainability

The Centre for Social Justice and Inclusion held a number of online forums for staff, students and the community including;

As part of Reconciliation Week author Professor Bruce Pascoe discussed his award-winning book *Dark Emu*, the politics of food and history and pathways to justice for Indigenous peoples in Australia. Since the book's publication Pascoe has been working on cultivating Australian native grasses for bread production and in the process, rediscovering and disseminating traditional Indigenous knowledge to modern Australia.

Leading thinkers Tanya Plibersek, Tim Soutphommasane, and Adrian Pisarski explored the idea of how to 'build back better' after COVID-19. Reimagining a better Australia with a stronger economy, fairer society, and more environmentally sustainable future.

Blak Lives Matter, a webinar held in collaboration with the UTS Jumbunna Institute for Indigenous Education and Research. The panel discussion saw Linda Burney MP and UTS academics Alison Whittaker and Thalia Anthony exploring ignorance in white Australia, and the country's history and race struggles.





Research

Research

The output and global profile of our research continued to grow this year gaining recognition on the world stage. UTS jumped seven places on the QS World University Rankings to 133rd in the world and maintained its position as the number one 'young' university in Australia under 50 years of age. The CWTS Leiden ranking of world universities registered our research performance placing UTS number one in Australia for research appearing in the top 10% of most-cited publications in scientific fields, and on this metric UTS scored 56th in the world.

The stellar year for UTS researchers included the following awards;



Marine biologist **Professor Dave Booth** won a prestigious science Eureka Prize for his work, in collaboration with multiple stakeholders, on corals that are more resilient to environmental stresses and how this could be used to help coral reefs adapt to climate change.



Environmental Engineer **Dr Qilin Wang** won a Eureka Prize for his work improving the efficiency of waste water treatment, reducing the energy inputs and greenhouse gas emissions of sewerage treatment plants.



Microbiologist **Dr Laura McCaughey** won a Tall Poppy Award for her work on antimicrobial resistance and communicating science, especially to girls and young women.

Biomedical engineer **Dr Jen Mathews** was selected to join the 2021-2022 Superstar of STEM program. Along with 60 other participants across Australia the group will promote STEM (Science, Technology, Engineering and Mathematics) to the broader community. Jen was recognised for helping communicate the importance of healthy oceans and reducing marine plastic pollution.



Marine biologist **Dr Emma Camp** was announced as the L'Oréal-UNESCO For Women In Science 2020 Fellow and a TIME magazine Next Generation Leader for 2020. The wins recognise her work researching resilient corals and communicating science to the next generation of emerging scientists.



"I believe sharing my research and discoveries is critically important to help make marine science more accessible to the general public."

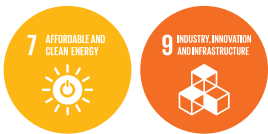
Dr Jen Mathews

Sustainable finance

A sustainable finance research project won the prestigious business CBSI Research Impact Award. A collaboration between the Institute for Sustainable Futures and the Centre for Business and Social Innovation, this review of the European Union’s Action Plan on Financing Sustainable Growth compared its 10 action points to the current state of play in Australia. Their findings led to Australia launching a multi-stakeholder sustainable finance initiative.

Sustainable energy partnership

UTS is leading the Reliable Affordable Clean Energy for 2030 Cooperative Research Centre (RACE for 2030) which focuses on technologies to improve energy reliability while reducing emissions and prices. UTS is partnering with eight other universities, the CSIRO, four state governments, eight energy networks and retailers, technology providers, and energy users and consumer representatives to deliver a suite of world-leading energy solutions ranging from smart inverters to renewable micro-grids.



Student leading lights

Firouzeh Taghikhah is an industrial engineer undertaking her PhD in data modelling. Her focus is ecological participatory modelling and she is developing an application to assess the health of ecosystems to help farmers improve land management techniques. In 2020 Firouzeh was awarded a Young Resilient Fellow for Resilience Engineering by the 4TU universities in the Netherlands. This will see her work with top-level scholars, engineers, practitioners and decision-makers from around the world. This year Taghikhah published two papers - *Integrated modelling of extended agro-food supply chains* in the European Journal of Operational Research, and *Exploring consumer behaviour and policy options in organic food adoption* in the Journal of Environmental Science and Policy.



Firouzeh Taghikhah

Staff leading lights

UTS’s Dr Sven Teske joined a high profile team at the international F20 Conference where he presented a paper titled *How can the Paris Climate Goals be achieved in the COVID-19 era?*. The F20 runs in parallel to the G20 meeting of world leaders and is made up of 60 foundation and philanthropic organisations calling for action towards global sustainable development. Dr Teske presented his work with One Earth, outlining a roadmap to achieve the Paris Climate Goals in a just and timely manner.



Dr Sven Teske



“UTS is now regarded not just as a leading technology university, but also as a significant research institution in our own right,”

Professor Andrew Parfitt,
Provost and Senior Vice President

Research Centre activity this year

Climate Justice Research Centre

The Centre delivered an online seminar series exploring different facets of climate justice including; *Climate Heat, Outdoor Work and Trade Unions, and Indigenous Climate Justice and the Conservation Estate*.

Centre on Persuasive Systems for Wise Adaptive Living (PERSWADE)

PERSWADE explored how gamification can be used in sustainability education and engagement, including a paper by PhD candidate Elena Bakhonova in the *Journal of Environmental Modelling and Software*.

Institute for Sustainable Futures (ISF)

This year's highlights includes Dr Sven Teske's presentation at the International F20 conference held in tandem with the G20. Themed 'Resilience and Recovery: Highlighting Solutions for the G20 on Climate and Sustainability', Teske proposed mechanisms to achieve the Paris Climate goals in a post COVID-19 era. ISF was also awarded a \$1.7 million grant to help improve energy reliability in rural and remote Australia with new renewable energy based microgrids.

Centre for Green Technology

The Centre is developing novel technologies to improve fuels and vehicle emissions, including a project this year on evaluating eco-driving technology to help reduce fuel consumption and emissions.

Centre for Clean Energy Technology

The Centre is undertaking world-leading research on battery storage technology to support the transition to renewable energy, focusing on new electrode materials for the next generation beyond lithium batteries.

C3 Climate Change Cluster

C3 continued to work on potential applications for algae-based technologies, along with ongoing work on improving the resilience of corals.

Centre for Compassionate Conservation

The Centre conducted interdisciplinary research focused on conservation challenges, including human-wildlife conflicts, wildlife trade, the welfare of wild animals, and promoting coexistence.

Centre for Technology in Water and Wastewater

The Centre continued to undertake research and development on innovative technologies to deliver recycled, desalinated and harvested storm water.

Biologics Innovation Facility

The Facility opened a new analytical laboratory in partnership with UK-based biopharmaceutical start-up Biosceptre, to build the capacity of Australia's bioprocessing sector.



Case study

Young Henrys brewer

Green Beer anyone?

Researchers from the Climate Change Cluster began an innovative project with local brewer Young Henrys to reduce the carbon footprint of beer. Carbon Dioxide is a significant by-product of beer production and the team is using 400 Litre bioreactors containing algae to capture the CO₂ and synthesise it into oxygen. Visuals of the green glowing tanks give beer brewing a science fiction vibe, but the preliminary results are positive with algae being five times more effective at absorbing CO₂ than trees. This project has the benefit of absorbing CO₂ within the actual manufacturing process. As part of National Science Week researchers from the Biotech Hub and Young Henrys teamed up for a virtual tour and panel discussion on how the two are collaborating and innovating on this project.





Facilities and operations

Facilities and operations

Water

The innovative recycled water sharing project with our neighbours at Central Park was connected this year. The first of its kind in Australia the contract with Flow Systems was originally signed in 2018 and aims to provide recycled water from our neighbours at Central Park for use in the UTS Central Building (building 2). Using recycled water for landscape irrigation and toilet flushing, the project will reduce the university's use of potable water by 40,000 kL per year. Potable water consumption fell 11.7% in 2020, mostly due to the lower numbers of people on campus due to COVID-19.

Going Solar

The Haberfield Rowing Club became the latest step in the university's roof top solar program. The 100 kw system consisting of 233 panels brings the UTS total PV solar capacity to 618 kw. The Haberfield installation generates 133 MWh per year, providing approximately 41% of the power requirements of the Rowing Club and helping to reduce greenhouse gas emissions by 107 tonnes per year.



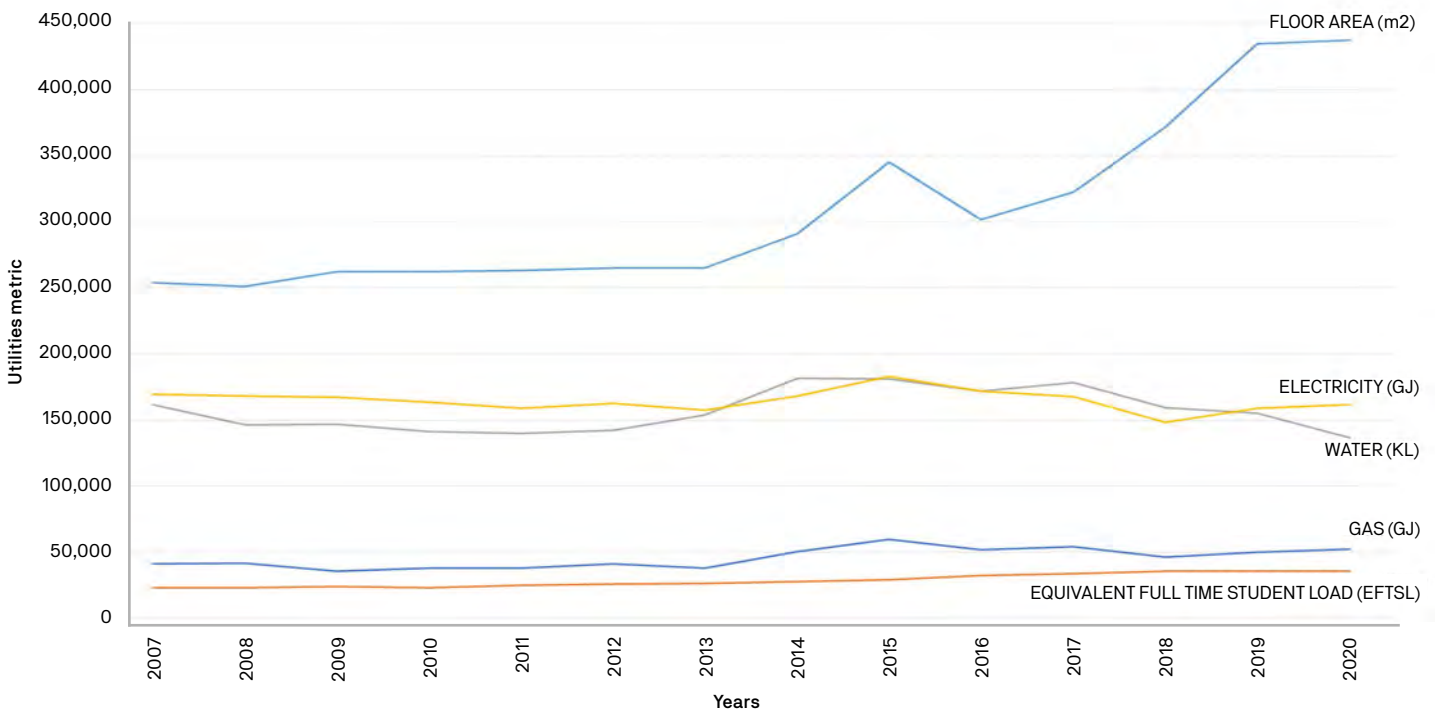
Haberfield Rowing Club



Energy and Greenhouse Gas Emissions

While COVID-19 resulted in the closure of buildings 5 and 8 for much of the year and reduced operating hours in other buildings, new facilities came on-line including six floors in the UTS Central building (building 2), as well as newly commissioned engineering labs in Botany. 2020 was also the first year that the Biologics Innovation Facility (BIF) laboratories in building 7, which opened in late 2019, became fully operational. Together, these factors resulted in electricity consumption rising 1.6% for the year, more than off-setting the savings achieved with the COVID-19 building closures. Gas consumption rose by 5.4% between 2019 and 2020, driven mostly by the newly operating Botany engineering labs. Despite this, total greenhouse gas emissions fell 19.1% from 39,380 tonnes in 2019 to 31,841 tonnes in 2020. This significant drop was achieved through the district cooling partnership with our neighbours at Central Park. 2020 was the first year when part of the chilling capacity for the main UTS air-conditioning plant came from Central Park, helping reduce greenhouse gas emissions.

Utilities performance



Waste and Recycling

Dramatically fewer people on campus for much of the year resulted in a big fall in overall waste volumes. The figures look impressive on the surface however, they must be viewed as an anomaly and cannot be compared with previous years. Total waste fell 36% from 1,310.2 tonnes in 2019 to 832.2 tonnes in 2020. Waste to landfill also fell 36% from 167.7 tonnes in 2019 to 108.7 tonnes in 2020. The figures below show the materials recycled in 2020 and the fall compared to 2019;

- General recycling (plastic, glass, metal, etc.): recycled 429.7 tonnes, down 36%
- Paper and cardboard: recycled 197.2 tonnes, down 49%
- Fluoro light tubes and bulbs: recycled 1.1 tonnes, down 35%
- Batteries: recycled .65 tonnes (652kg), down 51%
- Styrofoam: recycled .7 tonnes (700 kg), down 59%
- Computer cables: recycled .34 tonnes (339 kg), down 70%
- Soil conditioner: produced on campus 3.4 tonnes, down 82%
- Organics: recycled 96.4 tonnes, up 11%

The only waste stream bucking the steep downward trend caused by COVID-19 was organics which rose 11% from 87 tonnes in 2019 to 96.4 tonnes in 2020. This is due to a new waste stream on campus being added to the organics stream. Prior to August 2019 the organics stream was made up of waste from the organics bins in staff kitchens and back of house food outlet kitchens. In August 2019 the new plastic-free food court opened in building 2 introducing a new compostable waste stream of food scraps and compostable packaging. From this time on the organics figure will include this major new waste stream. This explains why there was a rise in the organics figure despite the campus operating a reduced level for much of 2020.

In a normal year not impacted by COVID-19 we would expect to see the rise in organics being off-set with a fall in the general waste stream as plastic food packaging was replaced with compostable food packaging. The general recyclables stream did indeed fall 36% but we shall need to wait for a more typical year before drawing meaningful conclusions and analysis from this figure.



Food scraps & compostable packaging





Native bee hive

The Library installed a hive of native stingless bees on their north-facing roof garden. Bees and many other insect pollinators are in sharp decline due to habitat destruction and the overuse of pesticides. The new UTS hive is part of the B & B Highway Project led by UTS academic Judy Friedlander. The project locates native bee hives across the urban environment in school grounds, parks, and community facilities. Then works with local communities to plant suitable food species for insect pollinators, helping to support and improve urban biodiversity.



Transport

Transport patterns to and from the campus were significantly impacted by COVID-19, with the pivot to remote working meaning far fewer staff and students travelling to the campus. To comply with social distancing Transport NSW imposed reduced capacity on the public transport system for most of the year. To help, UTS provided limited parking on campus for essential staff needing to travel during the close down period. Cycling and walking was promoted as a COVID-19 safe mode of travel, promoted with a communications campaign delivered through email, social media and the website. Existing cycling hub facilities in buildings 4, 5, 8 and 10 with showers and lockers helped make cycling a viable option for many staff and students.



Sustainable campus tours

The Sustainability Team runs tours of our Green Star Certified buildings and sustainable systems and campus processes. With reduced numbers on campus this year overall numbers decreased. Despite this, with social distancing and smaller tour sizes we managed to run 18 tours for 246 people. The 'Green Roofs tour' exploring UTS's five green roof gardens was the most popular.



Digital exams save the planet

COVID-19 did facilitate a trend that will result in a longer term environmental benefit - the move from paper based to electronic exams. In 2020 the move to fully online digital exams reduced paper use by approximately 8 million sheets, or 959 trees. In addition students took exams mostly from home, avoiding travel to and from campus. In total approximately 93,000 trips back and forward to exam venues was avoided, representing a significant reduction in transport impacts, not to mention financial saving for students. While it is too soon to say how many exams may shift back to the pre-pandemic format in the longer term, the new normal post pandemic will certainly see greater use of online exams with major reductions in travel and paper usage.

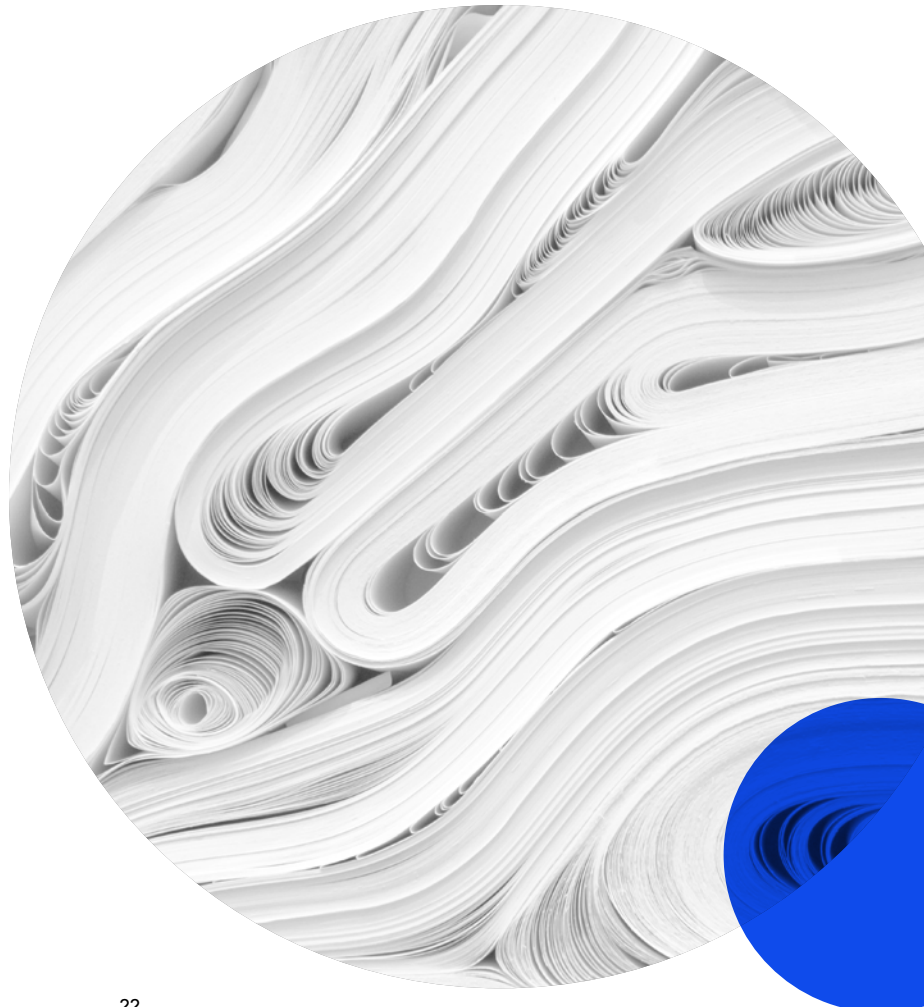


Behaviour change

Following a successful pilot in 2019, this year we introduced 'follow me printing' across most of the campus. The software replaces automatic printing to a local printer with a system that enables staff to collect their printing at any printer across the campus, but only when they tap their staff card on a the selected printer console. The key sustainability benefits include;

- Reducing paper use by eliminating unclaimed printing
- Reducing paper use by defaulting to double sided printing
- Controlling access to colour print and encouraging cheaper black print by default
- Reducing the overall number of printers

Disruptions and reduced people on campus this year made it difficult to fully interpret the numbers but preliminary results are positive. Based on the 2018 pilot print volumes were projected to fall by 15%. With most of the university now on 'follow me printing' actual 2020 volumes fell by 72%. While most of this fall was a result of reduced staff on campus the results are nevertheless positive. In addition, the project was projected to reduce the total number of printers by 90, and the actual printer numbers fell by 150. This fall is less influenced by COVID-19 and is an excellent outcome. Longer term we are hopeful that the projected 15% saving will be achieved. This equates to a reduction of 3.75 million print pages, saving 3,800 reams or 760 boxes of print paper annually.



“It’s been a tough year, but also a period of accelerated learning, innovation, and improved efficiency across the campus.”

Patrick Woods,
Deputy Vice Chancellor and Vice President.



Partnerships and engagement

Partnerships and Engagement

Engagement activities at the beginning of the academic year in February and March proceeded more or less as normal. From March onward the pivot to remote working due to COVID-19 impacted all on-campus activities. Some key events including Green Week and World Environment Day events were cancelled while others, where feasible, were moved online. By year's end a 55% fall in people attending physical events on campus was offset by an increase in on-line participation. Visits to the website rose by 50%, staff and students attending online events and initiatives rose by 45%, and there was a 21% increase in subscriptions to the monthly sustainability newsletter.

Sustainability events

Green Week physical events were cancelled but the associated photography competition proceeded online, receiving 55 entries (a typical number compared to previous years). Almost 3000 likes, shares and comments on social media was a significantly higher level of engagement than previous years.

Cycling and walking promotion

Ride to UTS Day and Walk to UTS Day in previous years have been run as separate events but this year we combined them into a full week-long single event. The requirement to travel to and from UTS was removed and staff and students were encouraged to ride and cycle close to home within their local community, counting kilometres travelled towards their competition tally. The overall winner was Chis Hamid who walked 50.1 km over 8 hours and 24 minutes. Partnering with Transport NSW UTS participated in the annual Biketober cycling challenge, joining 1482 other workplaces across NSW promoting cycling as a mode of transport. In collaboration with the City of Sydney we ran 3 free 'rusty rider' courses for staff, designed for people considering commuting to campus for the first time. A total of 21 people participated in these.



Green Hero Awards

The annual UTS Green Hero Awards proceeded as usual, with staff and students nominating peers in recognition of their sustainability achievements. This year first place went to Dr Jennifer Mathews, a marine biologist in the Climate Change Cluster who was recognised for establishing 'Big Blue Conservation', a not-for-profit marine conservation organisation in Thailand.

Second place went to student Miranda Crossley, recognising her volunteer work with the UTS Students Association's Enviro Collective engaging fellow students on climate change. Miranda helped organise the climate strike rallies in 2019 and lobbied for UTS to sign the United Nations Climate Emergency declaration. Third place went to Dr Charles Cranfield who facilitated the establishment of the Science Faculty Sustainability Committee. His work on the Committee is over and above his formal job responsibilities and he is an inspiration to colleagues within the Faculty – a scientist who works to convert scientific knowledge into real-world impact.



Green Impact Program

UTS was one of 12 universities across Australasia that ran the Green Impact behaviour change program in 2020. Despite initial concerns about the impact of remote working, the program ultimately provided a valuable mechanism to help staff stay connected to the university and colleagues while working from home. Ten volunteer teams consisting of 60 people undertook 257 sustainability actions, some on campus and others at home. The contribution of students was also important with eight students receiving formal auditor training and conducting audits of the activities undertaken by staff teams. Based on the success of the program this year the Green Impact program will run again in 2021.



Sustainability podcast

Developed in collaboration with radio station 2SER we produced 16 episodes of the Think Sustainability podcast and radio program. Airing on radio Sunday mornings the program has an average listenership of 34,000 and is replayed on Tuesday mornings with a listenership of 21,000. Throughout the year the program had 128,900 podcast listens. The leading episode for the year was 'The rise of eco fascism' with 9103 podcast plays.

[More here](#)





School outreach

The closest high school to UTS is one of Sydney's newest. Inner Sydney High in neighbouring Surry Hills opened its doors in 2019. This year we collaborated with science teachers from the school to bring year 8 classes to campus to explore what the university is doing on Sustainability. A total of 135 students visited in four groups over a four week period, with students undertaking a sustainability challenge during the visit and taking a tour of green sights around campus.



Bush fire fundraiser

In January staff ran a Day of Action to support fundraising efforts for communities impacted by the devastating summer bushfires.

The day kicked off with 'Coffee for a Cause' at three participating campus cafes who donated all proceeds from their morning coffee sales to bushfire charities. In the afternoon the Welcome Choir saw staff and students join together in song to raise funds, and the day finished with a charity live music session in the loft bar. The day raised over \$5000 which was divided among the following three charities; The Foundation for Regional and Rural Renewal, WIRES (wildlife rescue), and Fire Relief Fund for First Nations Communities.

Green Campus Day

Green Campus Day is an annual event with tertiary institutions across Australia and New Zealand opening their doors to showcase sustainable buildings and infrastructure. Held in September at the height of COVID-19 restrictions, this year we ran a panel discussion live streamed on Facebook with visiting native bee expert Francisco Garcia Bulle and UTS academic Judy Friedlander talking about the UTS native bee hive and the importance of supporting insect pollinators and their habitats.

Social sustainability

Exploring the nexus between people, planet and community was more important than ever this year. The UTS Centre for Business and Social Innovation collaborated with the NSW Office of Social Impact Investment to produce a report *Scaling Impact: Exploring Success* examining how social impact investments can provide a way for governments to fund innovative programs to address issues including homelessness and youth unemployment.

The UTS Business School and Institute for Sustainable Futures collaborated with the Australian Sustainable Finance Initiative to develop a road map for the finance sector charting the way to a sustainable future. The Roadmap presents 37 recommendations to develop a resilient economy prioritising wellbeing and social equity, protection of the environment and the transition to net zero emissions.



Student activities

Student Orientation in February proceed as normal with sustainability stalls, Green Campus tours and two bees wax wrap making workshops promoting Plastic Free UTS. Spring session Orientation in August was more subdued due to COVID-19 restrictions, however the Sustainability team, still managed to run three campus tours by limiting group numbers to maintain social distancing, and ran two succulent plant workshops outdoors focusing on resilience and mental health.

Student Leading Lights

The COVID-19 lockdown bought out the best and worst in people, from fights over toilet paper to acts of spontaneous generosity and kindness. Two members of the UTS Startup community, Michelle Gomes and Maureen Lee used their entrepreneurial skills to amplify the spirit of giving in their community. Using a repurposed old cupboard they created the 'Newtown Blessing Box', a free curb-side supermarket of food and essential household items for people doing it tough. Neighbours and good Samaritans were able to donate items to the Blessing Box for anyone in need, including visitors to the Asylum Seekers Centre located just down the road. As well as a place of nourishment, the Blessing Box quickly became a place for social support, facilitating conversations and connection in the Newtown community.

The UTS Centre for Social Justice and Inclusion hosted a public panel discussion *Kindness after Lockdown* with the Newtown Blessing Box founders and other community advocates exploring positive community responses to COVID-19.



Science Sustainability Committee

Formed in 2019 The Science Faculty has its own Sustainability Committee made up of staff and postgraduate students who meet quarterly. Their remit is to improve the sustainability of Faculty operations and help staff within the Faculty 'walk the talk' on climate change and sustainability. This year their focus areas were reducing the use of single use plastics in science labs, lobbying the university and UniSuper to divest from fossil fuels, and developing a Decarbonisation and Sustainability Charter for the Faculty.



External Engagement

Our collaboration with other universities continued through membership and participation in Australasian Campuses Towards Sustainability (ACTS). Staff from the Sustainability team gave two online webinars to colleagues in the sector and team members continued roles on the ACTS Executive Board and the Learning in Future Environments (LiFE) index working group.

We continued membership and active participation in the City of Sydney Council's Better Buildings Partnership (BBP), working with other owners of commercial buildings in the CBD to improve the sustainability performance across the city. The Head of Sustainability represents UTS on the BBP Leadership Panel, and Central Services staff continued to participate in the BBP Waste Working Group.

The voice of UTS researchers and academics maintained a strong presence in mainstream media, with dominant themes this year including climate change, renewable energy transition, and coral reefs.

Social media sustainability engagement rose 6% compared to 2019 and the number of people subscribing to our UTS Sustainability newsletter rose 21%.



“One of the biggest impacts that universities can have in driving innovation is facilitating collaboration and providing opportunities for people to bump into one another,”

**Professor Attila Brungs
(Vice Chancellor and President)**



Leadership and governance

Leadership and governance

The *UTS Sustainability Strategy 2017 – 2020* outlines the University's sustainability vision, goals, and the mechanisms to achieve those goals through to the end of 2020. It outlines the planned initiatives, success indicators, and responsibilities for key staff across the organisation in the four key areas of teaching and learning, research, operations and community engagement. Implementation of the Strategy guides our daily work and the document's success will be reviewed at the end of 2020 and a new Strategy developed in 2021. The Strategy sits underneath the UTS Sustainability Policy and UTS 2027 Strategy, which sets the high level strategic direction of the university.

This year we also continued to implement the UTS Plastic Free Plan, a strategic framework for helping UTS transition away from single use plastics.



Sustainability Steering Committee

The Sustainability Steering Committee oversees implementation of the *UTS Sustainability Strategy 2017 – 2020*, and provides high-level guidance for sustainability activities across the university. The Committee meets quarterly and membership this year was;

- **Patrick Woods**, Deputy Vice-Chancellor (Resources)
- **Glen Rabbitt**, Director, Facilities Management Operations
- **Nigel Oliver**, Director, Program Management Office
- **Danielle McCartney**, Head of Sustainability
- **Benjamine Duncan**, (acting) Head of Sustainability
- **Dr Paul Brown**, Senior Lecturer, Faculty of Transdisciplinary Innovation
- **Professor Stuart White**, Director, Institute for Sustainable Futures
- **Professor Peter Scott**, Pro Vice-Chancellor (Education)
- **John Chalmers**, Director, Marketing and Communications
- **Mehmet Musa**, President UTS Students Association
- **Distinguished Professor Jim Macnamara**, Deputy Dean, Faculty of Science
- **Dr Melissa Edwards**, Senior Lecturer, Business School
- **Murray Hurps**, Director, Entrepreneurship, Innovation & Entrepreneurship
- **Associate Professor Natalie Lloyd**, Academic Director Teaching and Learning, FEIT
- **Verity Firth**, Executive Director, Centre for Social Justice and Inclusion
- **Dr Charles Cranfield**, Senior Lecturer, Faculty of Science

Sustainability Development Goals Working Group

The SDGs Working Group aims to develop and analyse UTS's institutional response to the UN Sustainable Development Goals with the aim of embedding the SDGs across the university's academic, operational and engagement activities. The Working Group membership this year was;

- **Alison Atherton**, Research Director, Institute for Sustainable Futures
- **Alexandra Butler**, Research Assistant, Institute for Sustainable Futures
- **Professor Margaret Petty**, Executive Director, Innovation and Entrepreneurship Unit
- **Verity Firth**, Executive Director, Centre for Social Justice and Inclusion
- **Danielle McCartney**, Head of Sustainability
- **Professor Roger Hadgraft**, Director, Educational Innovation and Research
- **Dr Rosemary Sainty**, Lecturer, Business School
- **Dr Emma Camp**, Postdoctoral Research Fellow, Climate Change Cluster
- **Jen Mansell**, External Communication Manager
- **Professor Kees Dorst**, Transdisciplinary Innovation
- **Mitra Gusheh**, Executive Manager, Centre for Social Justice and Inclusion
- **Katie Ross**, Research Director, Institute for Sustainable Futures
- **Robynne Quiggin**, Associate Dean, Indigenous Leadership and Engagement
- **Professor Stuart White**, Director, Institute for Sustainable Futures
- **Emeritus Professor Cynthia Mitchell**, Institute for Sustainable Futures



The UTS Sustainability team



Danielle McCartney
Head of Sustainability



Eric Liyanage
Sustainability
Engineering Manager



Jyothis Joseph
Sustainability Assistant
Engineer



Seb Crawford
Sustainability
Engagement Manager



Chloe Malmoux-Setz
Green Impact Administrator



Abbey Cummins
Sustainability Assistant



Jonathan Prendergast
Green Infrastructure
Project Manager

A big farewell to Eric Liyanage, Sustainability Engineering Manager, who retired from UTS in December after 22 years. He is a valued member of the Sustainability team who has made a significant contribution over the years to the university's energy and water efficiency, not only improving our sustainability performance but also resulting in considerable cost savings. Eric's knowledge of the university, its buildings and systems is immeasurable and will be very much missed, as will his commitment to mentoring UTS's engineering students.

Contact us

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[Facebook/UTSgreen](https://www.facebook.com/UTSgreen)

“Investments now in research and teaching represent an investment in the future and, as we all know, will generate long term benefits.”

Professor Attila Brungs
(Vice Chancellor and President)