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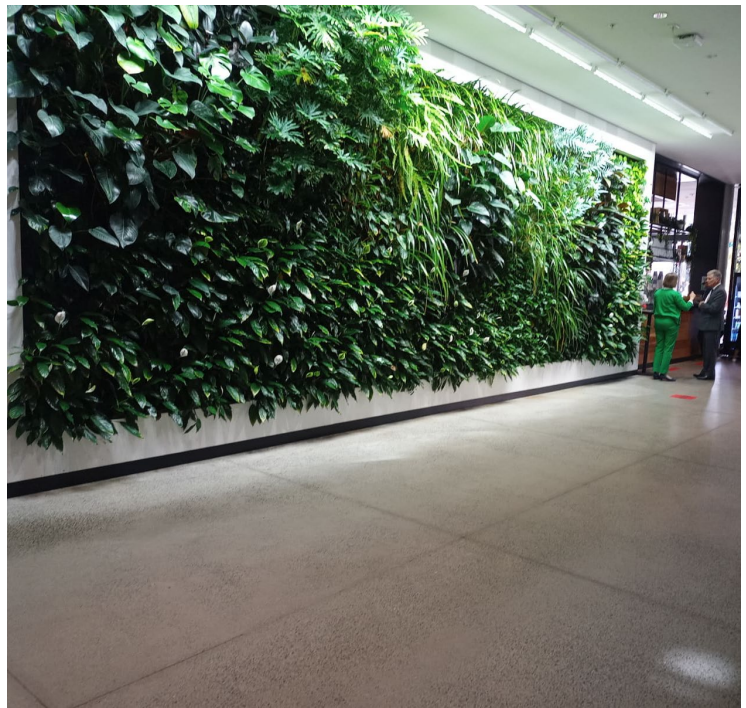
MY VISIT TO AUSTRALIA AND THE TEFMA CONFERENCE 2022

Nadeem Gafieldien



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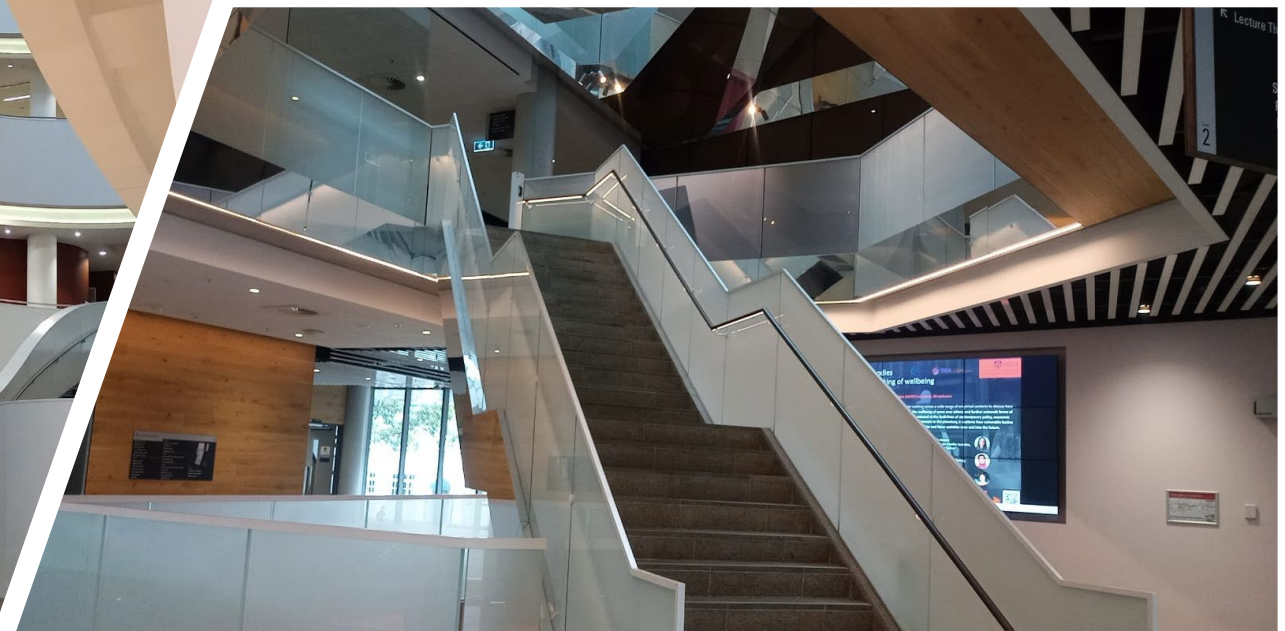
THE UNIVERSITY OF
SYDNEY



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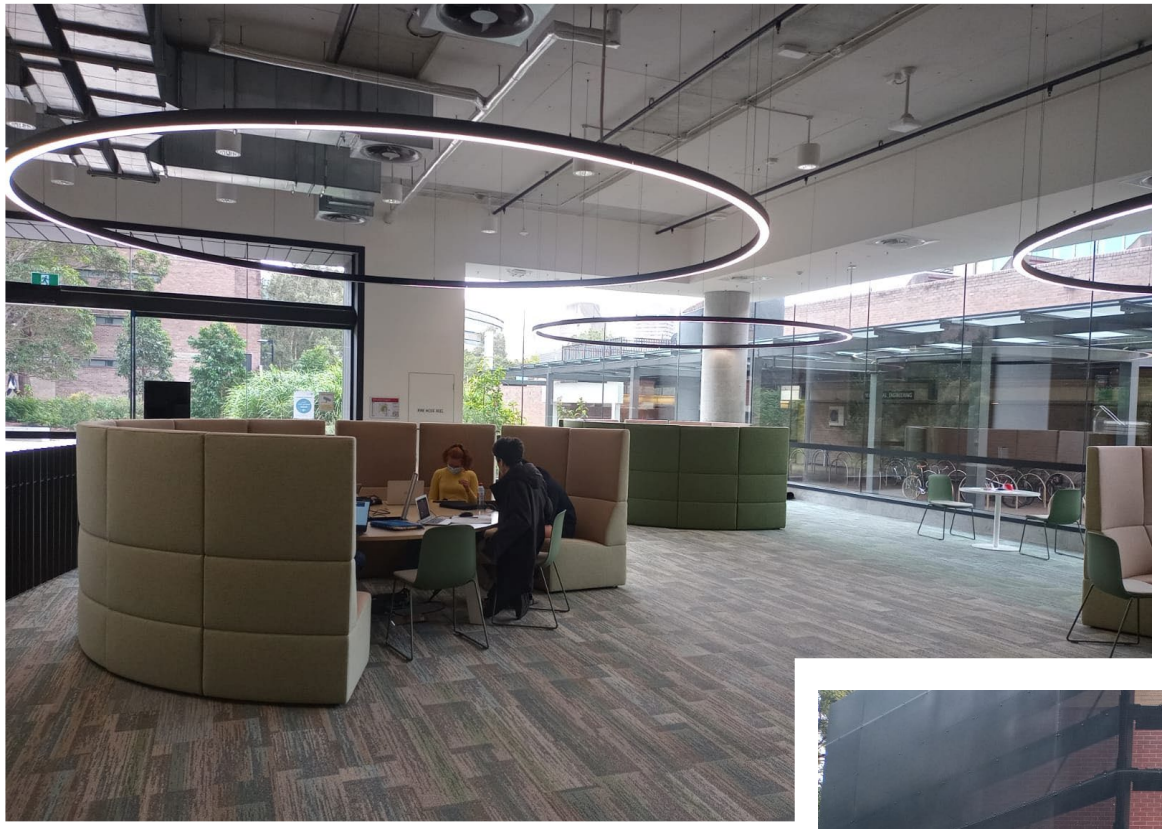
Sydney University

Student count: 73 000 (50% International)

- Large infrastructure investment program over the last decade.
- Financing model 55% foreign students (China).
- Most new buildings Five star rated.



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Sydney University

- Engineering and Technology Precinct renewal projects
- Refurbish Mechanical Workshop into student study center.
- New technology to teach Chemistry in labs

University technology spin-off Gelion delivers smart solar benches

19 October 2020

Revolutionary zinc-bromide batteries to power renewable economy

The University's targets under its Sustainability Strategy include:

- Net zero emissions by 2030
- Zero waste to landfill by 2030
- Sourcing 100 percent of electricity from renewable sources (achieved in 2022, three years ahead of schedule)
- Reducing potable water use by 30 percent per person
- Five-star Green Star ratings for new buildings, and four-star ratings for complete building refurbishments
- Introducing sustainable procurement practices to reduce waste and increase social sustainability.

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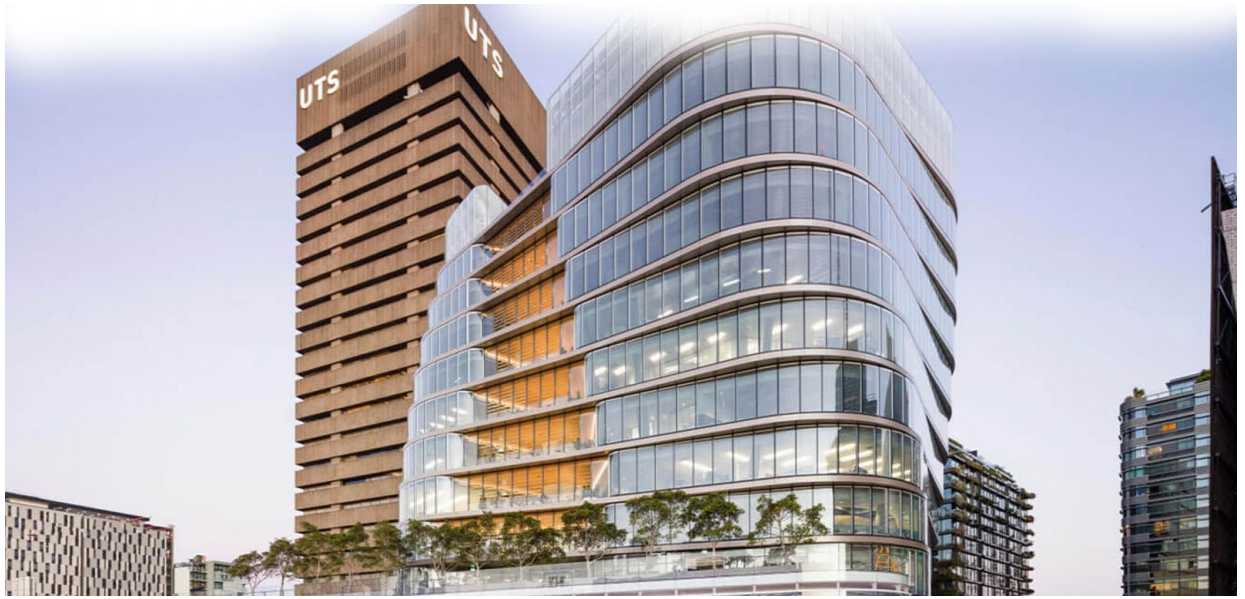
Provost and Deputy Vice-Chancellor Professor Annamarie Jagose, Executive Sponsor for the Sustainability Strategy, said the STARS results acknowledged the hard work and commitment of the whole University community.

> *"We're committed to embedding sustainability in every aspect of University life and have made a strong start in achieving our targets."*
>
> – Provost and Deputy Vice-Chancellor Professor Annamarie Jagose

UTS
UNIVERSITY OF TECHNOLOGY, SYDNEY



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Other Universities in Sydney

- University of Technology is city centre.
- Private University Medical School

School of Medicine, Sydney campus
THE UNIVERSITY OF NOTRE DAME AUSTRALIA
School of Medicine, Sydney


Welcome to
UTS
Central

University of Queensland – Student count: 56 000 (21 000 International)


ORGANIC WASTE
WASTE
RECYCLE


Long Pocket Shuttle
Long Pocket Shuttle
St Lucia campus to Long Pocket site Shuttle Bus Timetable
SafeZone
For your safety, all staff and students are required to scan your ID card, when boarding the Shuttle Bus.
5 tips for COVID-19 safety
Safety Bus
Safety Bus Stop 10
After-hours Safety Bus
SafeZone
For your safety, all staff and students are required to scan your ID card, when boarding the Safety Bus.
5 tips for COVID-19 safety


8300
Gatton Solar
Research Facility

FACT SHEET

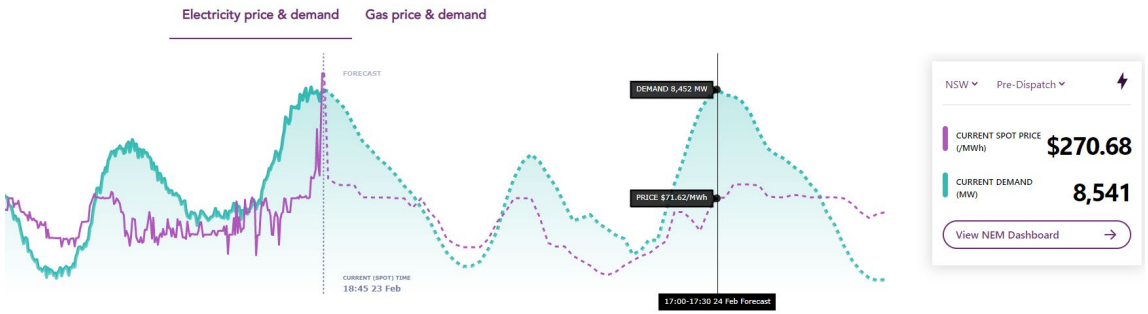
28 July 2020

The National Electricity Market

The National Electricity Market (NEM) operates on one of the world's longest interconnected power systems, stretching from Port Douglas in Queensland to Port Lincoln in South Australia and across the Bass Strait to Tasmania – a distance of around 5,000 kilometres.

The NEM spans Australia's eastern and south-eastern coasts and comprises of five interconnected states that also act as price regions: Queensland, New South Wales (including the Australian Capital Territory), South Australia, Victoria, and Tasmania.

Western Australia and the Northern Territory are not connected to the NEM, primarily due to the distance between networks. The NEM's transmission network carries power from electricity generators to large industrial energy users and local electricity distributors across the five regions. These assets are owned and operated by state governments, or private businesses.



FACT SHEET: THE NATIONAL ELECTRICITY

The electricity network

To understand the NEM, it's necessary to understand the journey that electricity takes as it travels from generators to customers, and the technology and infrastructure that makes this possible. When an electrical appliance is switched on, power is instantly transmitted from a power station to the appliance. Although this occurs instantaneously, a specific sequence of events takes place to ensure the required electricity is delivered, as illustrated below:

Transport of electricity

1. Generator
Produces electricity.

2. Generator transformer
Converts low voltage electricity to high voltage for efficient transport.

3. Transmission lines
Carry electricity long distances.

4. Distribution transformer
Converts high voltage electricity to low voltage for distribution.

5. Distribution lines
Carry low voltage electricity to consumers.

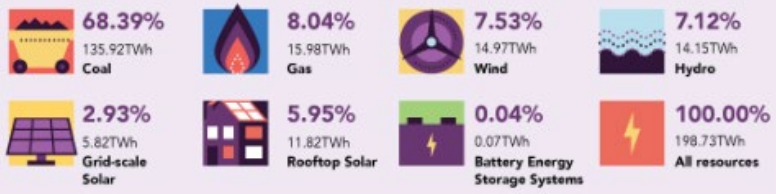
6. Homes, offices and factories
Use electricity for lighting and heating and to power appliances.

7. Rooftop solar PV and batteries
Can provide electricity to the grid.

Energy resources

Australia's generation mix is rapidly transforming. Here are the generation resources that make up our National Electricity Market.

Annual generation by fuel type (2019/20)



68.39% 135.92TWh **Coal**

8.04% 15.98TWh **Gas**

7.53% 14.97TWh **Wind**

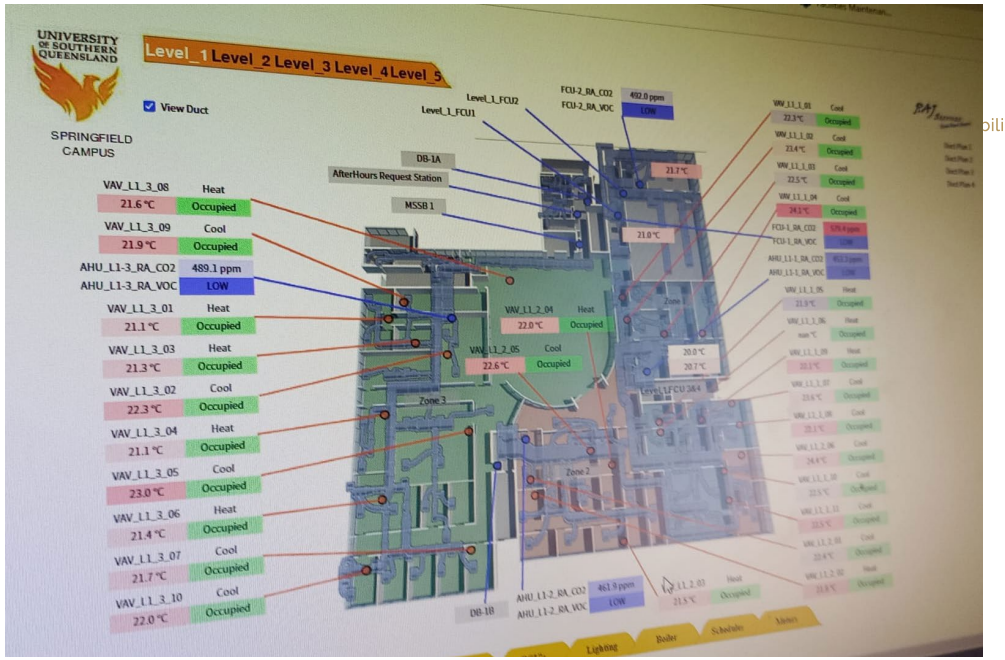
7.12% 14.15TWh **Hydro**

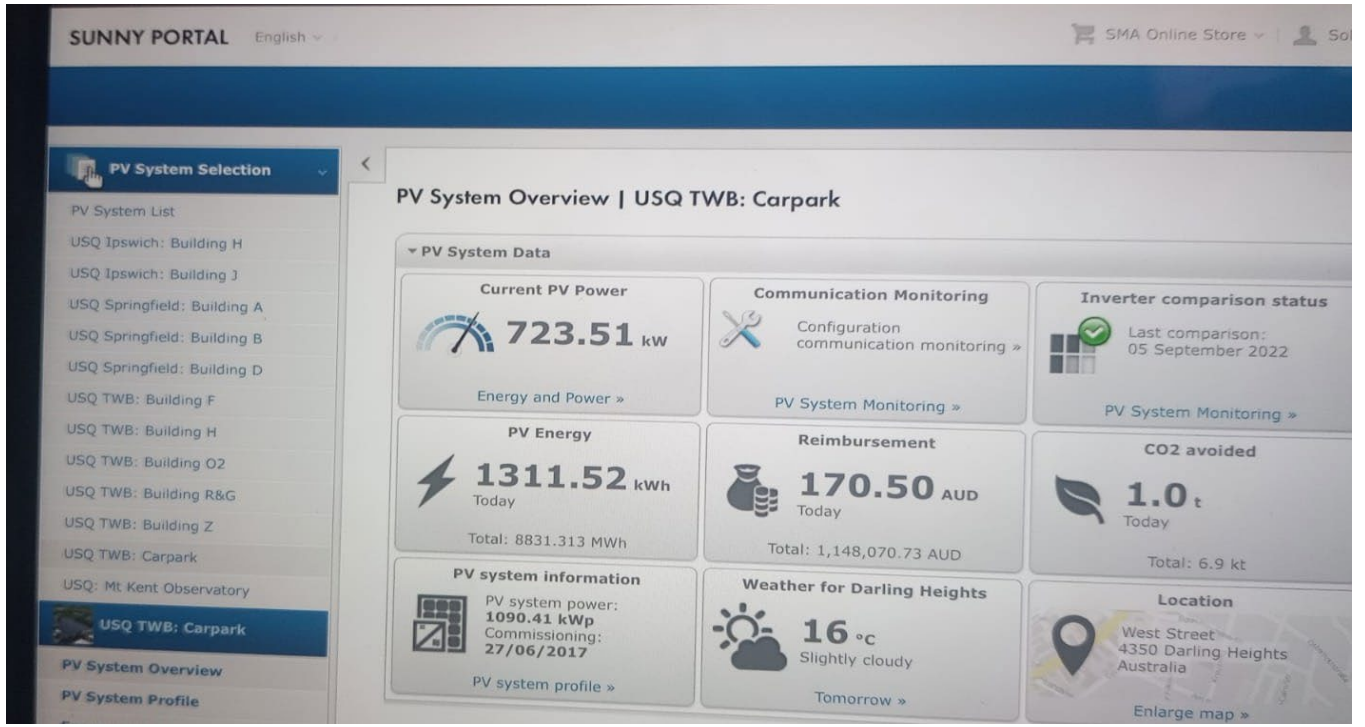
2.93% 5.82TWh **Grid-scale Solar**

5.95% 11.82TWh **Rooftop Solar**

0.04% 0.07TWh **Battery Energy Storage Systems**

100.00% 198.73TWh **All resources**





UNIVERSITY OF SOUTHERN QUEENSLAND
AUSTRALIA

CRICOS QLD 00244B / NSW 02225M

Student count – 27 500 students

University of Southern Queensland – 27 500 students

Sustainable Energy Solution Project

The University has taken positive action to offset its energy requirements by installing a Sustainable Energy Solution. The project represents a significant investment into the three communities UniSQ is part of, providing a 'real-world experience' that delivers a measurable reduction in long-term energy-related emissions and costs, as well as an enhanced platform for research, learning and teaching.

The 2 megawatt solar project continues to reduce the University's total carbon emissions by approximately 20 per cent per year. Annual performance of the Sustainable Energy Solution continues to exceed the minimum energy generation performance guarantee.

Renewable energy generated from the system is 10,558.76MWh (as of 31 Dec 2020) offsetting the University's emissions by 8477.70t$CO_{2\text{-}e}$ since the system went live in June 2017.The 2MW solar array project actively demonstrates the University's commitment to its social responsibilities and to improving environmental performance.

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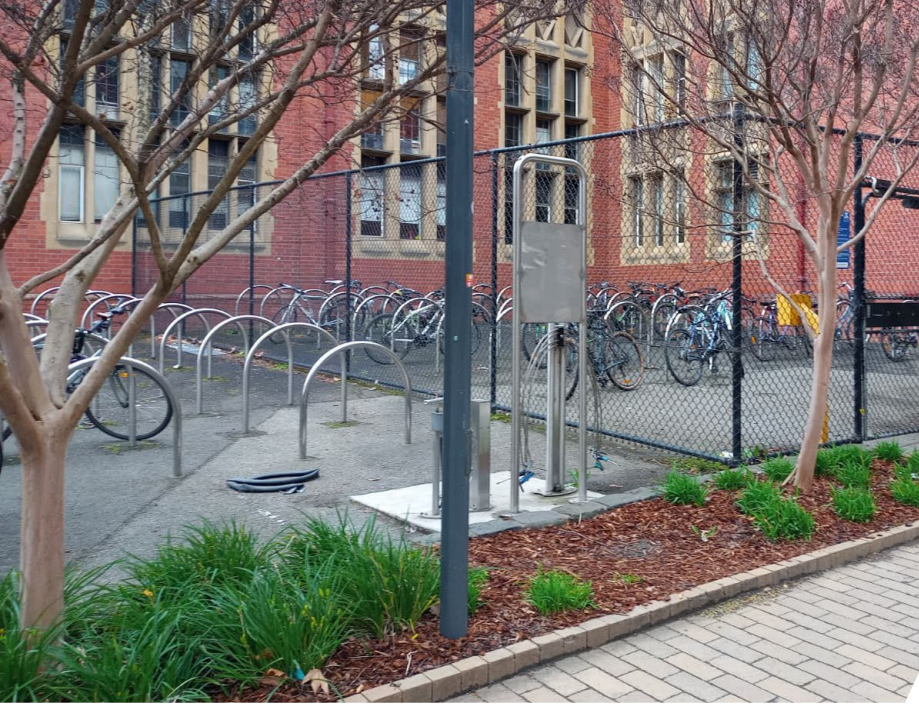
RMIT
UNIVERSITY

Student count – 97 000 students
(multi campuses across 230 countries)




PT
PT


ONLY
No time to stop for a cold?
Strengthen your immunity

Carbon and Climate Performance

Governance

RMIT has a strong governance structure in place to make sustainability an organisational priority and that decision making reflects the University's values.

Find out more ›

Sustainable Development Goals

The RMIT-wide SDGs Project, initiated in June 2018, aims to improve University accountability in relation to its contributions to the SDGs.

Carbon and climate

RMIT is a global leader in climate action, taking practical steps and innovative projects to become carbon neutral by 2025 and adapting to climate risks.

Find out more ›

Circular economy and recycling

RMIT University is committed to leading the shift into a circular economy that values resources and thinks holistically about our systems, processes and supply chains.

Sustainable Buildings

RMIT aims to create sustainable and inclusive spaces that enhance the experience and wellbeing of our people and have a positive impact on our surrounding environment and society.

Water

RMIT is committed to reducing water use intensity across our campuses, through a focus on efficiency, harvesting and reuse.

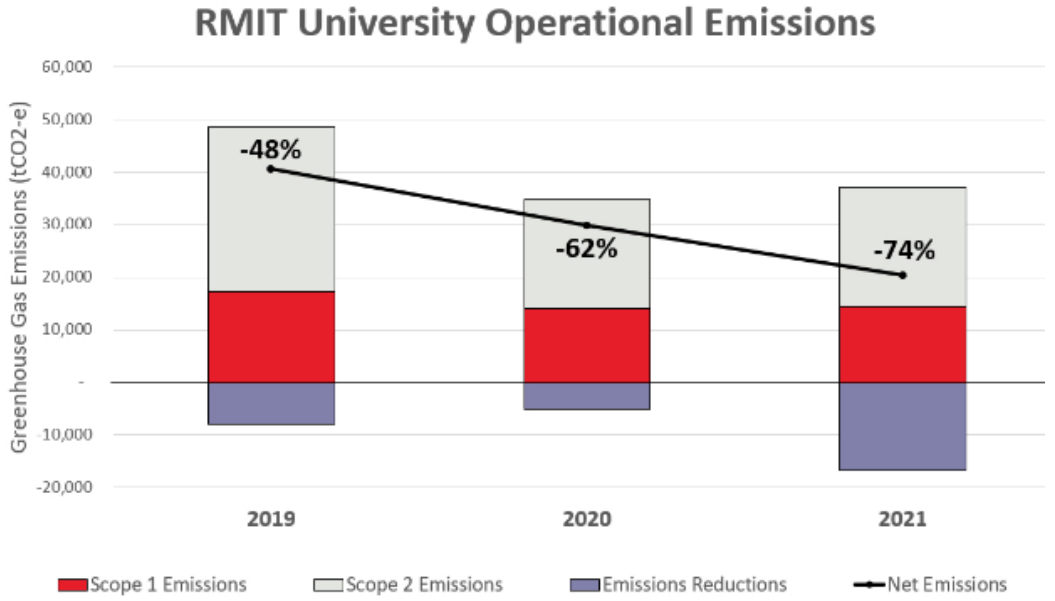
Find out more ›

Life on campus

RMIT focuses on creating a great campus life, where choosing sustainable options is easy for our students, staff and wider community, including transport and retail.

Get involved

RMIT is committed to widespread engagement across the community of students and staff to encourage the adoption of sustainable practices and outcomes.



In 2021, RMIT achieved a **74%** decrease in operational emissions from the 2007 emissions baseline (covering scope 1 and 2 building emissions). The majority of this reduction is due to energy efficiency upgrades and renewable energy contracting. It should be noted that the continued impact of COVID-19 had an influence on the 2021 emissions profile, contributing an estimated 14% reduction.

POSTERA CRESCAM LAUDE

THE UNIVERSITY OF MELBOURNE

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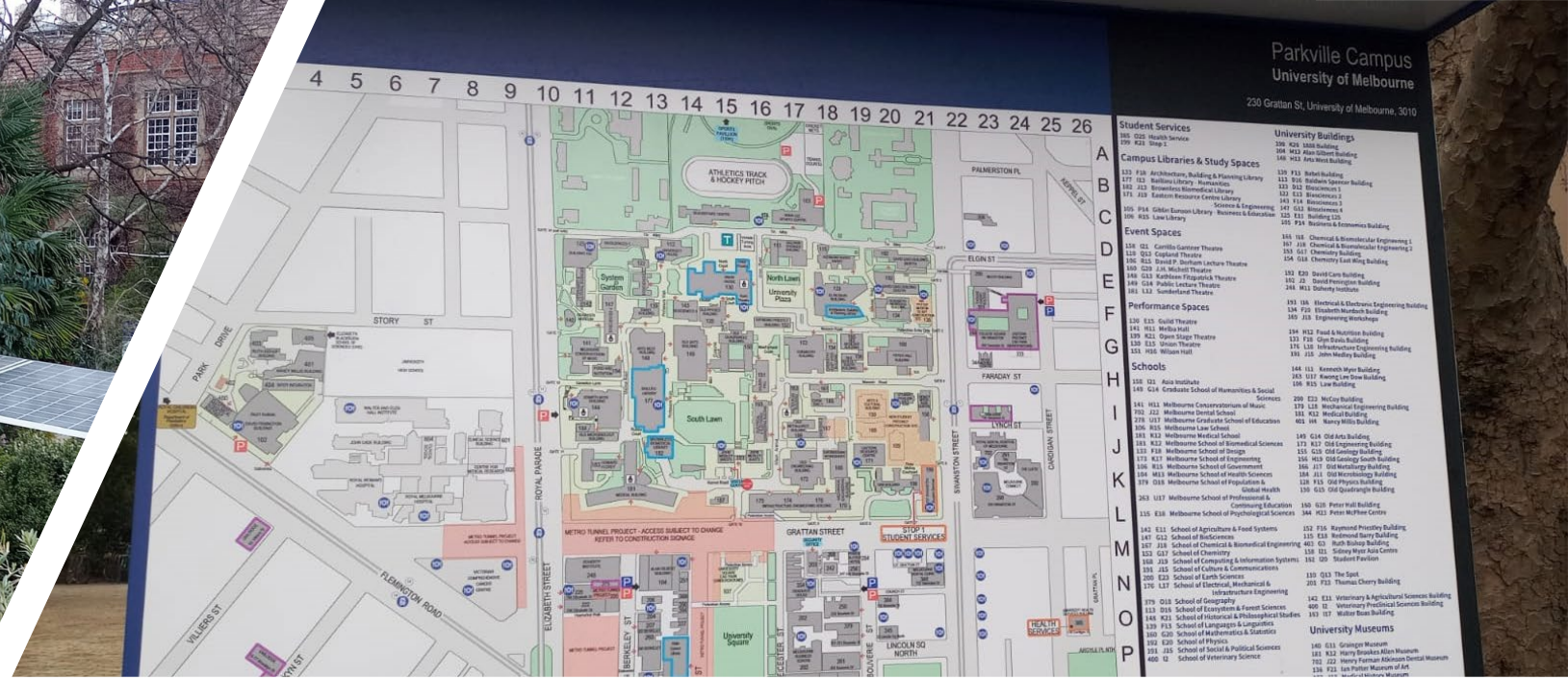
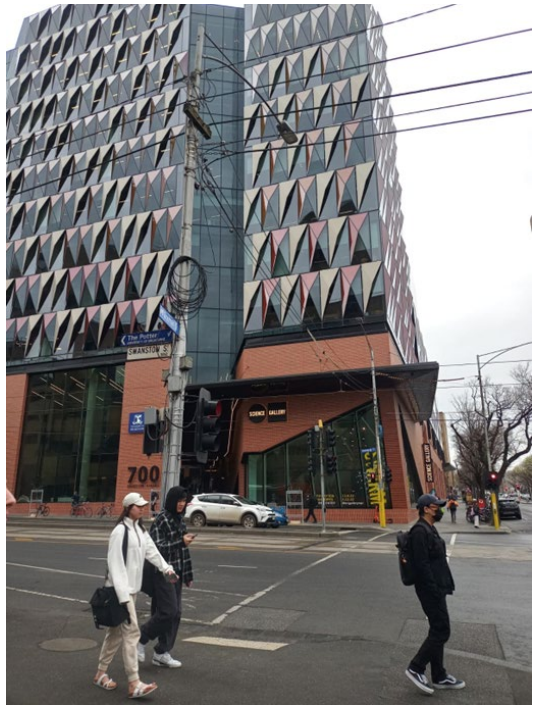
ntoe

Student count: 54 400


Parkville Campus
University of Melbourne
230 Grattan St, University of Melbourne, 3010
Student Services
Campus Libraries & Study Spaces
Event Spaces
Performance Spaces
Schools
University Buildings
University Museums
ATHLETICS TRACK & HOCKEY PITCH
North Lawn
University Plaza
South Lawn
System Garden
STORY ST
PARK DRIVE
ROYAL PARADE
FLEMINGTON ROAD
VILLIERS ST
ELIZABETH STREET
BERKELEY ST
GRATTAN STREET
PALMERSTON PL
ELGIN ST
FARADAY ST
LYNCH ST
SWANSTON STREET
CARDIGAN STREET
LINCOLN SQ NORTH
University Square
HEALTH SERVICES
METRO TUNNEL PROJECT - ACCESS SUBJECT TO CHANGE REFER TO CONSTRUCTION SIGNAGE
STOP 1 STUDENT SERVICES
A B C D E F G H I J K L M N O P


STOP 1


JOHN DEERE
GATOR



Supporting the transition to clean energy

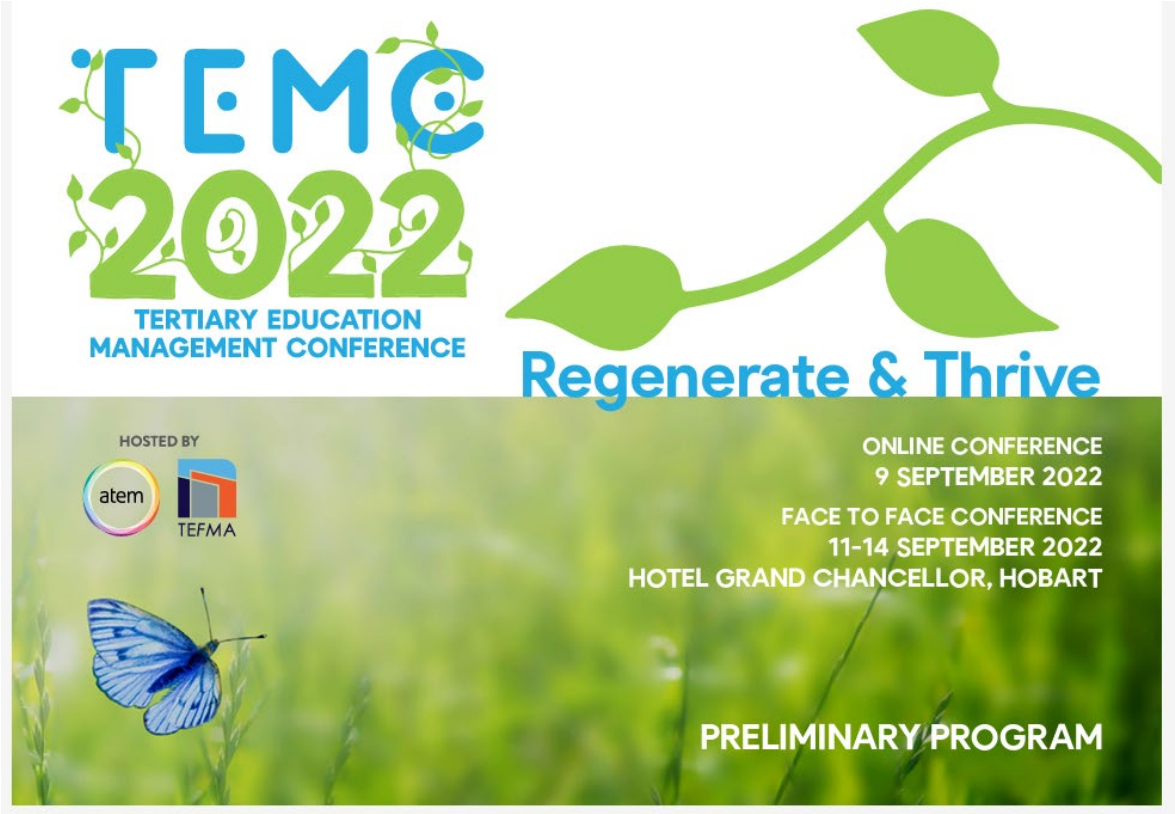
The Melbourne Energy Institute (MEI) has launched a new program for research with industry to reduce emissions and support the clean energy transition, including building the workforce needed to make it happen.


More trains,
more often
Find
your
way
Grattan Street


Open for business

UNIVERSITY of TASMANIA

Student count: 34 000



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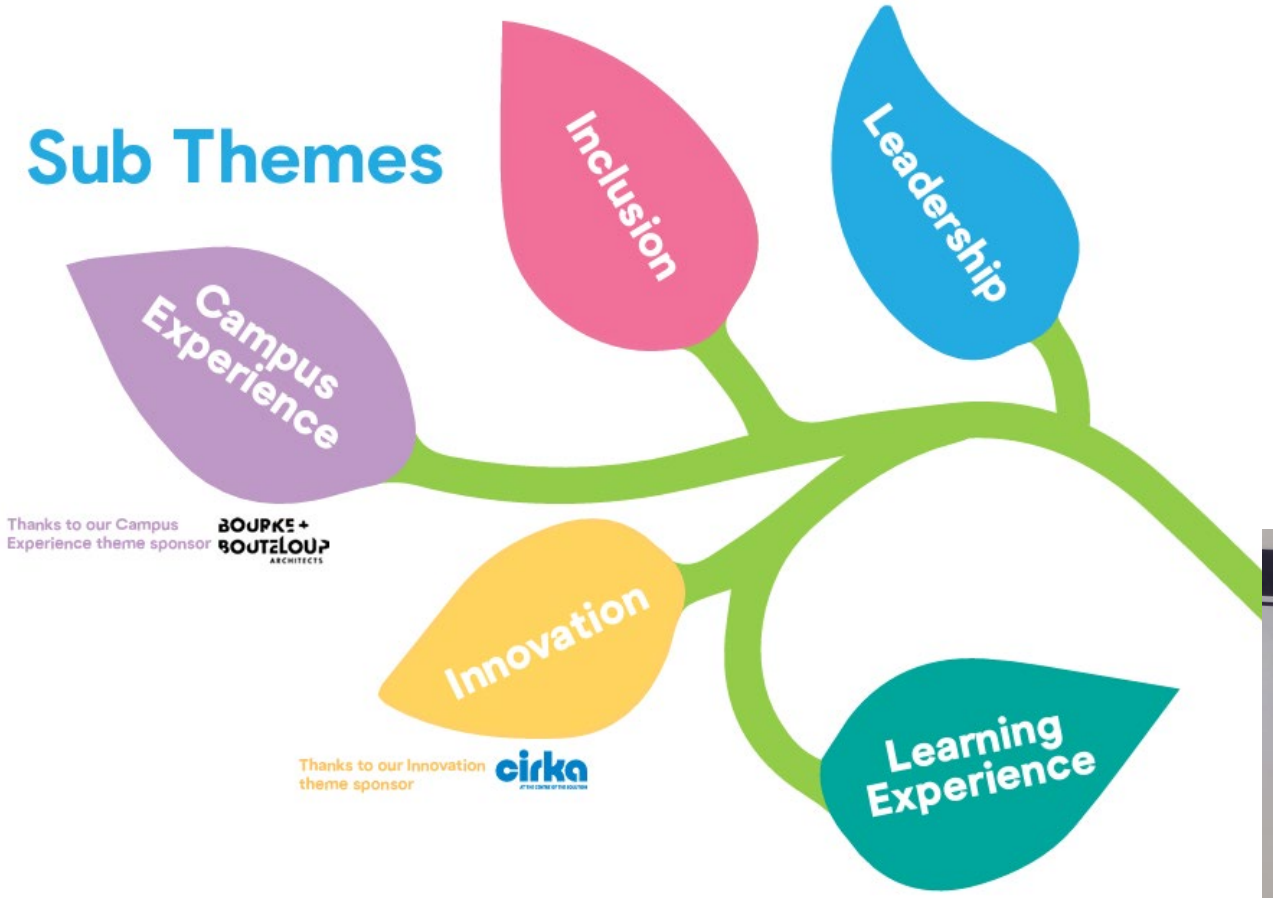

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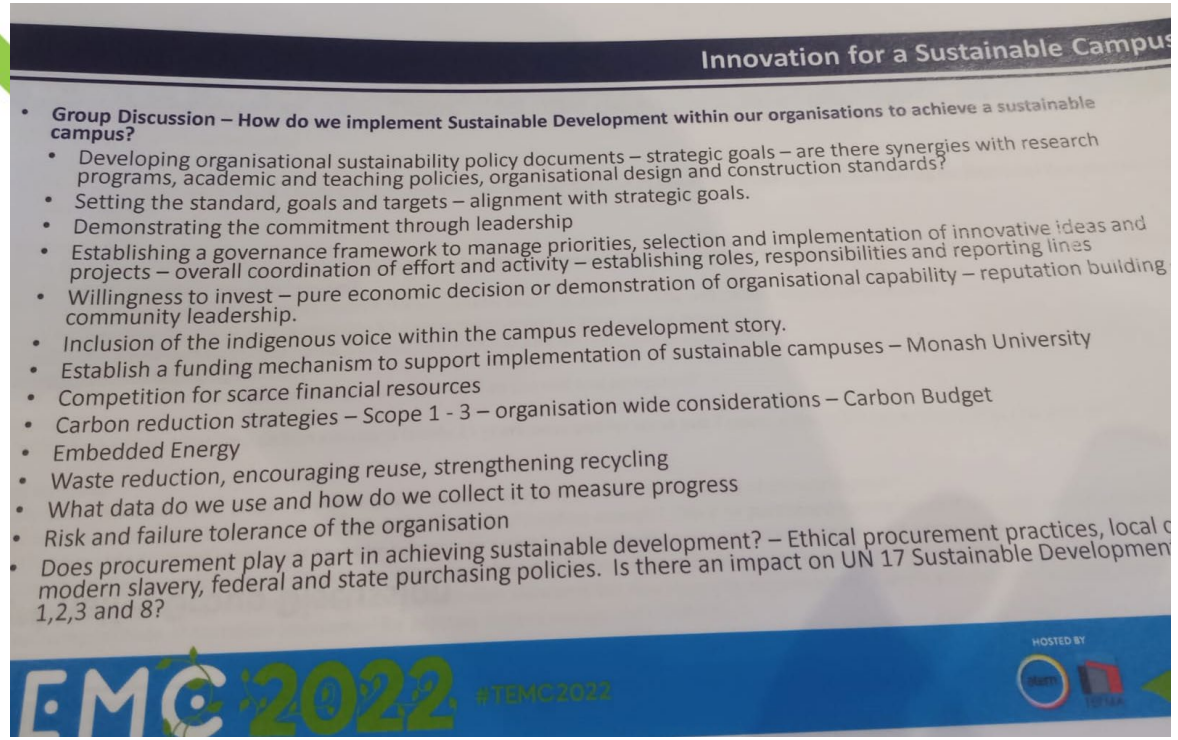
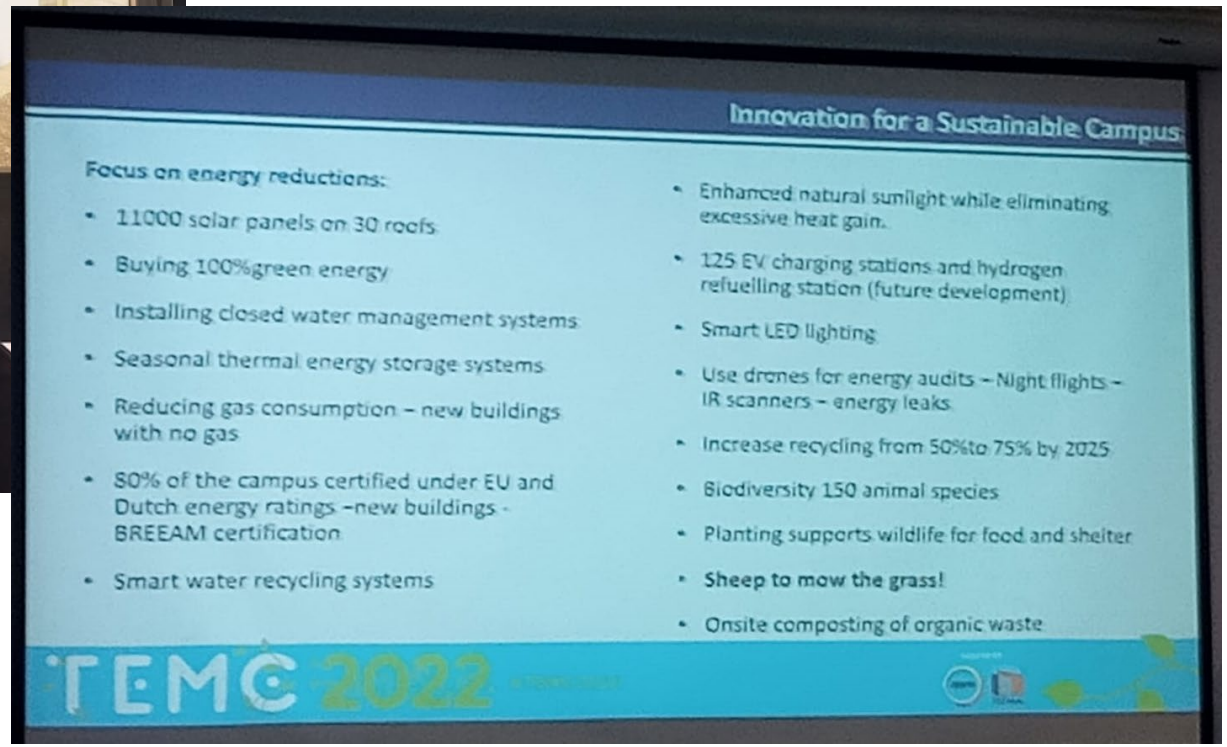
- ❑ Quality and scope of papers presented
- ❑ Interactive workshops
- ❑ Technical and products specialist's presentations

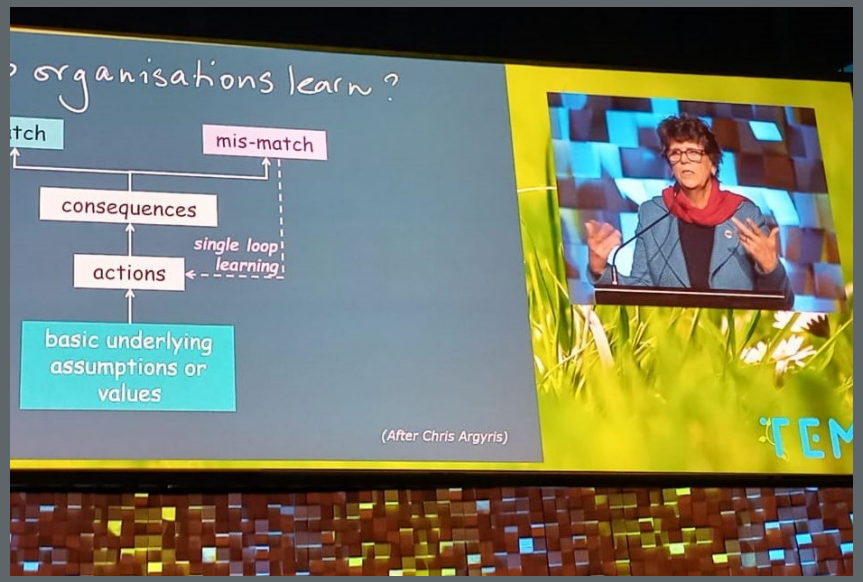


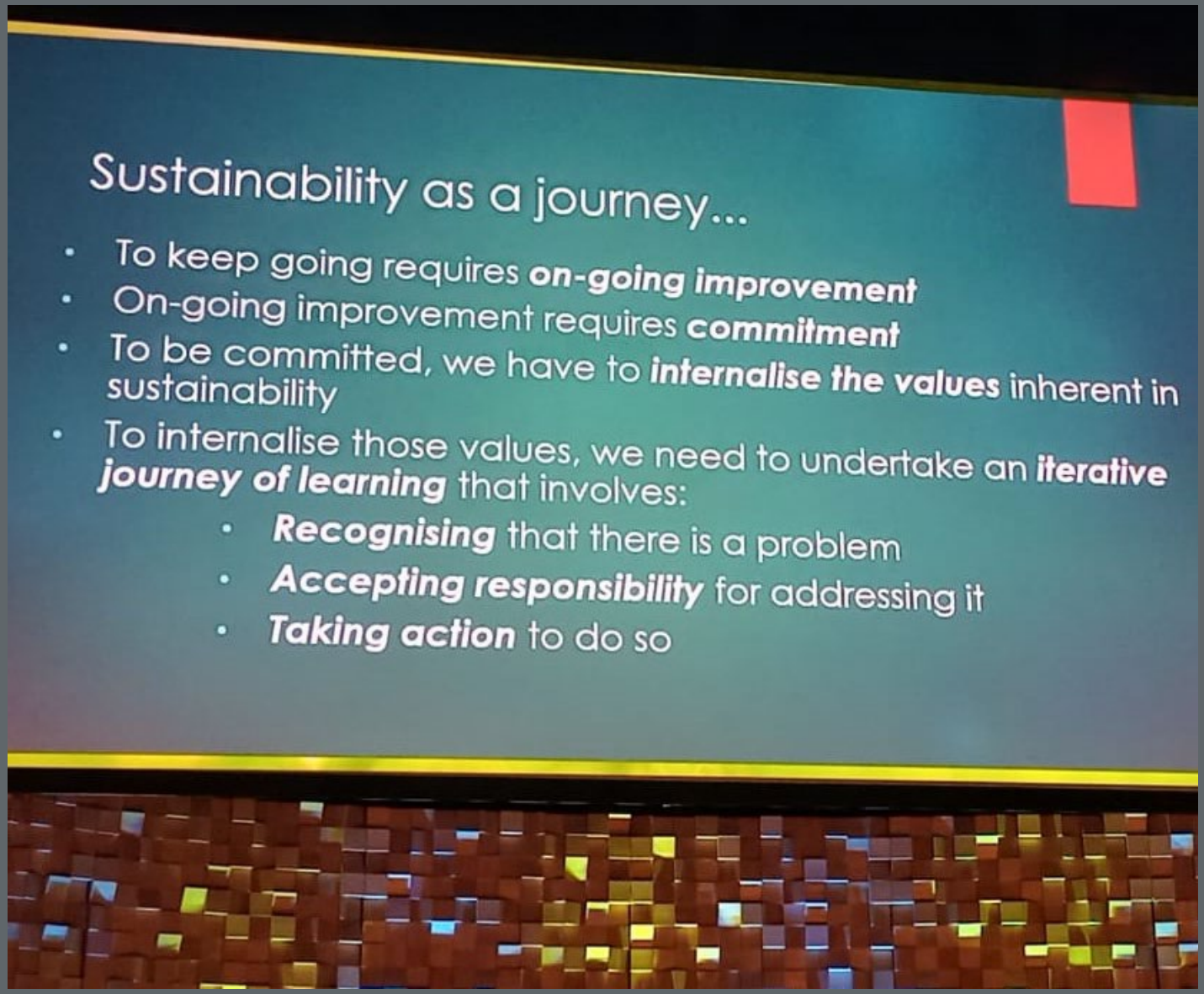
TEMC 2022 Regenerate & Thrive
9 SEPTEMBER ONLINE
11-14 SEPTEMBER HOBART
TERTIARY EDUCATION MANAGEMENT CONFERENCE

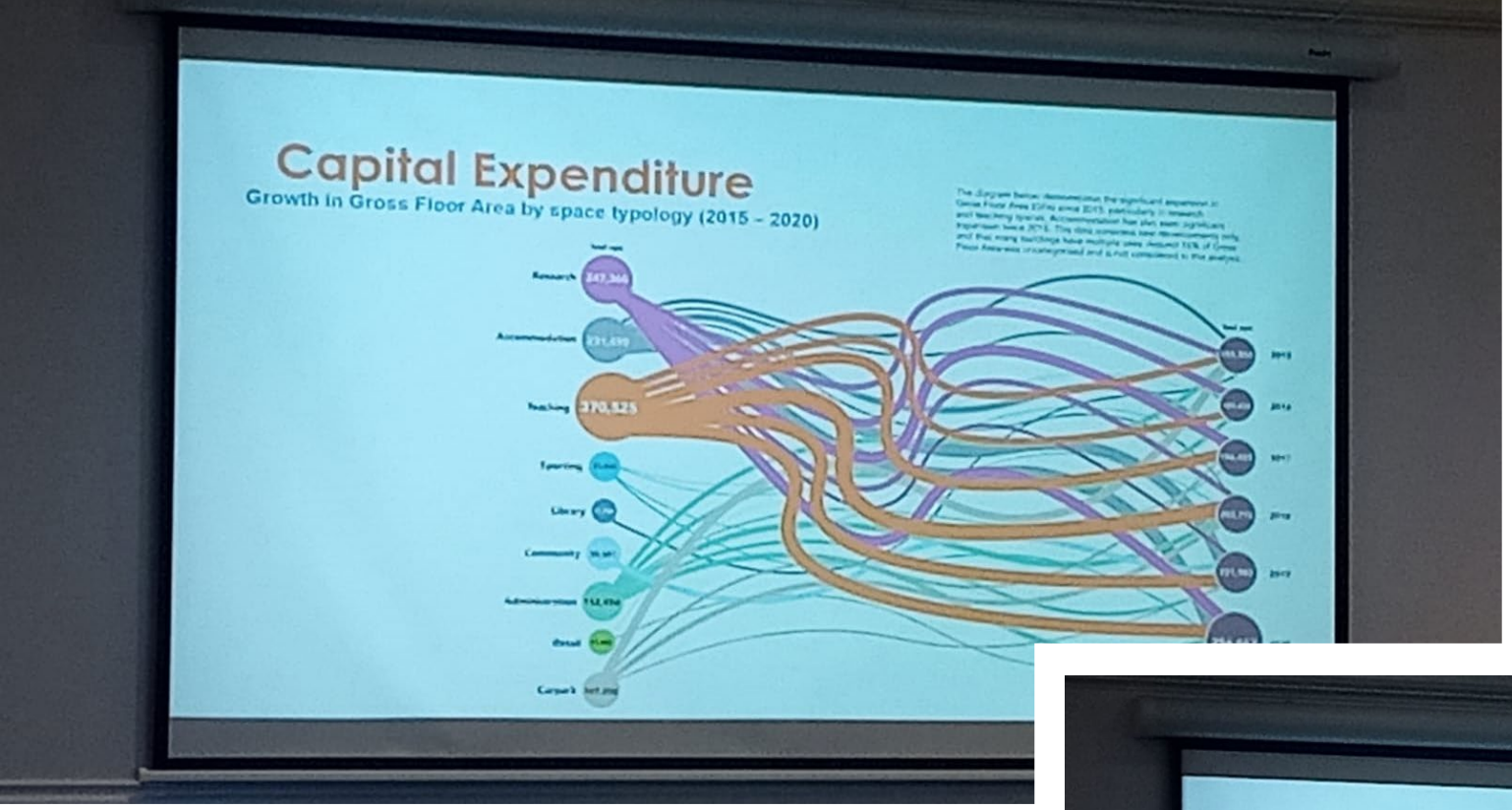


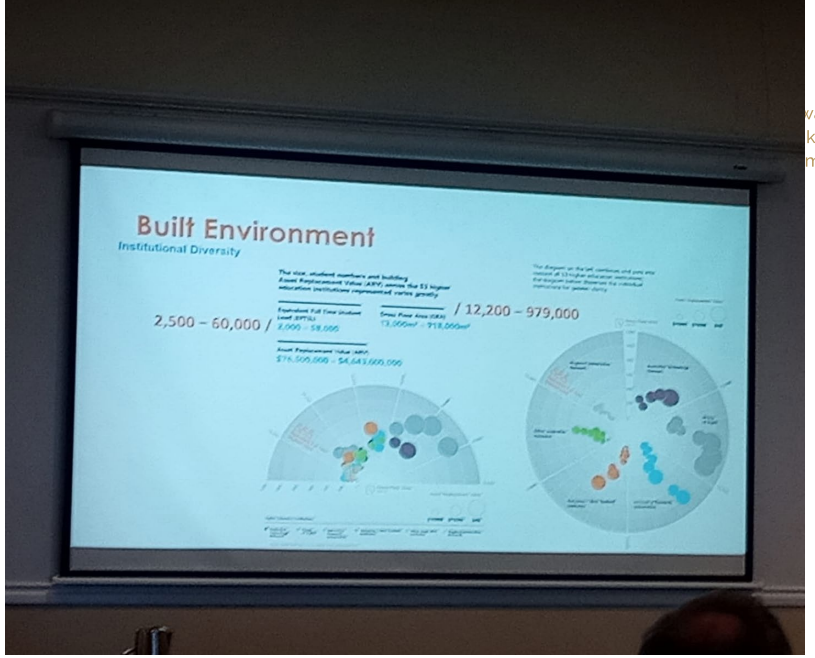
Site visit to the University of Tasmania at Sandy Bay

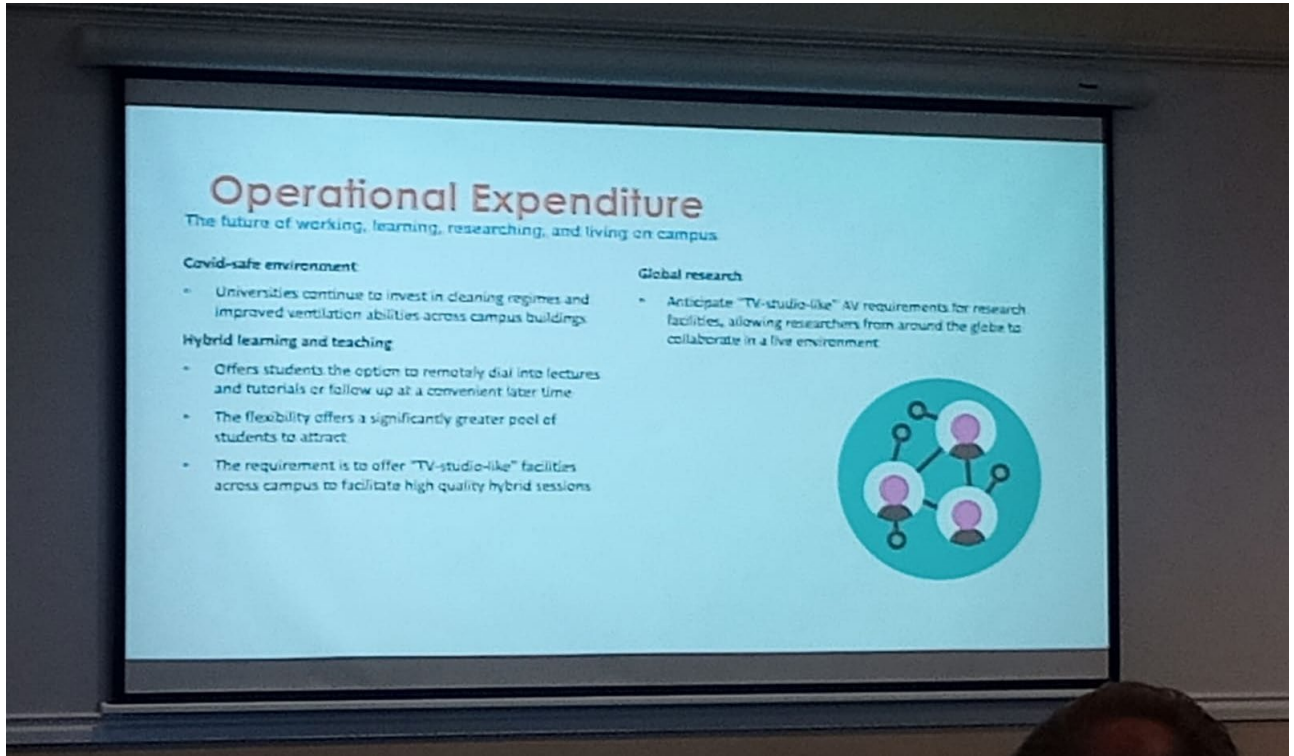

REGENERATE & THRIVE
SUSTAINABILITY AS A CATALYST FOR INNOVATION, INCLUSION, LEARNING AND LEADERSHIP AS WE REGENERATE AND THRIVE
Dr Lesley Stone
proudly sponsored by
mgs
TEMC 2022
#TEMC2022


organisations learn?
mis-match
consequences
single loop learning
actions
basic underlying assumptions or values
(After Chris Argyris)


Sustainability as a journey...
To keep going requires on-going improvement
On-going improvement requires commitment
To be committed, we have to internalise the values inherent in sustainability
To internalise those values, we need to undertake an iterative journey of learning that involves:
Recognising that there is a problem
Accepting responsibility for addressing it
Taking action to do so







Presentation on Estates and Facilities Management financial training:

- Strategic asset investment (capital expenditure)
- Benchmark investment
- Guides to Operational Expenditure

NUS
National University
of Singapore


LEADING GLOBAL UNIVERSITY
SHAPING THE FUTURE
A LEADING GLOBAL UNIVERSITY
SHAPING THE FUTURE
NUS
National University of Singapore


ZONE F
ZONE F
Hospital
MAIN BUILDING LOBBY F
TAXI QUEUE ONLY

Thank You/ Dankie

Questions, Answers and Discussion