

# Sustainability Report 2013–2015

Our goal: To be a sustainable university



**Know more. Do more.**

# Vice Chancellor's message



Griffith University has been committed to the principles of sustainability since our foundation over forty years ago.

Over time our understanding of the impact of human activity on our world has grown in depth and breadth. Achieving sustainability against the prospect of

long term social and economic dislocation as the result of environmental degradation has become the focus of international efforts by Governments, business, researchers and educators, community groups and individuals.

Sustainability is one of five high level goals in the Griffith Strategic Plan 2013–2017. To support this goal, a Sustainability Plan 2013–2015 was approved on 5 December 2012 by the University Council, incorporating economic, environmental and corporate social responsibility in our teaching programs, research activities, community engagement and operational practices.

A comprehensive Carbon Management Plan has also been developed so that there is a consistent and measurable effort to reduce our carbon footprint over the long term.

Griffith's inaugural Sustainability Report 2013–2015 provides an overview of the strategies that have been implemented and the progress we have made to advance our sustainability commitment.

A handwritten signature in black ink that reads "Ian O'Connor".

**Professor Ian O'Connor**  
*Vice Chancellor and President*

## Griffith's sustainability achievements recognised

- **Winner: Australian Coastal Awards 2015**  
The Griffith Centre for Coastal Management (GCCM) won two major categories: Research and Community Engagement
- **Winner: Tertiary Access Group (TAG)**  
Business Leadership Award 2015 (Closed Loop systems)  
TAG Member Award—Sustainable Procurement 2014 (Vitamin G Café)
- **Winner: Logan Eco Awards 2015**  
Sustainable School Award (Slacks Creek Restoration project).
- **Winner: 2015 Queensland iAwards**  
Research and Development, Biodiversity and Climate Change Virtual Lab (BCCVL)
- **Winner: The Ashley Goldsworthy Award for Sustained Collaboration between Business and Higher Education 2014**  
A successful partnership between the Griffith Centre for Coastal Management (GCCM) and the City of Gold Coast.
- **Winner: Green Gown Awards Australasia**  
Learning and Teaching (Griffith MBA) 2013

# Our sustainability journey



Griffith's Sustainability Plan 2013–2015 provides goals, objectives, targets and accountabilities to continue to advance our sustainability commitment.

A representative Sustainability Sub Committee of the Executive Group, chaired by Professor Ned Pankhurst, Senior Deputy Vice Chancellor has oversight of the Sustainability Plan.

This report provides an overview of our progress.

## Sustainability Plan 2013–2015 goals

- Griffith University is recognised as embedding principles of sustainability that support the University's goals and strategies.
- To foster understanding of, and commitment to the principles of sustainability in the workplace.

Sustainability goals have been included in all University plans: Academic Plan 2013–2017, Research Plan 2013–2017, Engagement Plan 2015–2018, Griffith IT Plan 2013–2017.

A concerted effort has been made to cascade sustainability goals into all operational plans. This has resulted in the establishment of committees in several academic and administrative elements of the university to formulate strategies embedding sustainability.

In 2014, Griffith introduced a Sustainability Award for staff to recognise innovative and effective approaches to leading sustainable practices.

Sustainability has been incorporated into Griffith's new staff induction process to raise awareness and commitment.



Griffith University is proud to be recognised as being an Employer of Choice for Women continuously since

2001, and now as Employer of Choice for Gender Equality more broadly, which showcases our commitment to equity, diversity and inclusion within the Griffith community.



In 2015, Griffith University's Professor Lesley Chenoweth AO was named in the top 10 of Australia's most influential women.

The Pro Vice Chancellor and Head of Logan campus won the local/regional category at the Australian Financial Review and Westpac 100 Women of Influence Awards for 2015.

Griffith's Logan campus is the site of a large revegetation project (8 ha), featuring a native arboretum that will provide a valuable educational and community resource.

Professor Chenoweth has led a long and distinguished career in higher education, integrating research, education and community particularly in the areas of social work, people living with disabilities and people often excluded from higher education.



Staff Sustainability Award Winners 2014. L–R Mr Jos Lamb, Mrs Katrina Medill, Ms Tanya Lindenberg, Mr Mark Ballantyne, Professor Catherine Pickering, Ms Delwyn Langdon, Dr Michael Howes with Professor Martin Betts, Deputy Vice Chancellor, Engagement (fourth from left).

# Sustainability highlights

## Gold Coast 2018 Commonwealth Games Official Partner



In 2015, Griffith University became an Official Partner of the Gold Coast 2018 Commonwealth Games (GC2018). This partnership expresses Griffith's leadership and belief in a sustainable future for the Gold Coast, while celebrating what will be an extraordinary opportunity for Australia's sixth-largest city.

Sustainability is a key strategy for Gold Coast 2018 Commonwealth Games Corporation (GOLDOC), which promotes its commitment to leadership in sustainability and to international best practice standards at home and around the world. Griffith is proud to be a member of the GC2018 Sustainability Advisory panel of experts to assist in meeting this commitment.

## National Climate Change Adaptation Research Facility



In 2014 Griffith's National Climate Change Adaptation Research Facility (NCCARF) was awarded \$8.9 million

from the Federal Government for Phase 2 of the National Climate Change Adaptation Research Program. NCCARF will work with national science agencies, academics, state and local governments, community organisations and businesses to develop a framework to help local governments make better decisions about managing risks from rising sea levels and more intense storm surges.

## New light rail system opened in 2014



This major development was officially opened in July 2014. It is a vital transport infrastructure initiative leading to the Commonwealth Games in April 2018.

The \$1.1 billion project saw the construction and operation of 13 km of light rail in the heart of the Gold Coast. With two stations adjacent to Griffith's Gold Coast campus, the light rail system plays an important part in delivering staff and students to the University's doorstep.

In October 2015, funding was announced to extend the light rail from the Gold Coast University Hospital station (outside the entrance to the campus) to the Helensvale train station. This means there will be connected rail services from Brisbane to Southport and more transport options.

Griffith's MBA has ranked inside Australia's top five in the 2015 Financial Review BOSS Magazine MBA survey. The MBA program is set apart from others because of our three core values: responsible leadership, sustainable business practice and global orientation with an Asia-Pacific focus.

# Sustainability has been part of our teaching programs since inception

## Teaching

Goal: By including sustainability principles in Learning and Teaching programs we will deepen our students' understanding of sustainability at local and global levels.

Griffith aims to produce graduates who understand the challenges facing the world today, with superior skills in creating practical solutions.

Among its suite of programs, Griffith offers interdisciplinary undergraduate and postgraduate programs that make connections between economic, social and environmental conditions.

## Recent strategies to enhance learning and teaching

- Formed in February 2014, the Sustainability Teaching Network is one of the key strategies related to teaching in the University's Sustainability Plan 2013–2015. The Sustainability Teaching Network draws together representatives from transdisciplinary areas in environment, business, health, education, the arts and society.
- Griffith's Sustainability Teaching Network developed Griffith's new Sustainability Hub for learning and teaching. Launched during Griffith's Sustainability Week 2015, the Hub provides teaching and learning resources for staff and students in all disciplines. The Hub provides 440 up-to-date resources from organisations that address sustainability.



## GrowsAtGriffith app

A new GrowsAtGriffith app, launched in 2013, provides an interactive and easy-to-use flora database of 300 plants found on Griffith University's five campuses. It features more than 900 high-quality images. To date, the free app has been downloaded more than 6,000 times.



It has become integral to environmental education in the region including Natura-pacific using the app to deliver environmental education programs to 160 schools in South East Queensland covering 47,000 students.

## Coastal Life app

Jointly developed by Griffith University and the Queensland Museum, the Coastal Life app is designed as a handy, portable tool for high school and undergraduate students, as well as the interested naturalist and beach walker.



With over 540 species of marine plants and invertebrate animals from coastal habitats across South East Queensland, it is packed with information about the biology and ecology of each species.

As a forerunner in the field, in 1975 Griffith launched Australia's first environmental science degree and since then, has continued to lead in areas of environmental science, education, research and practices.

# Research in local and global sustainability challenges is a priority

## Research

Goal: Achieve a profile of excellence in world class research relevant to sustainability.

Griffith is a research intensive University with an established national and international profile for innovative and interdisciplinary research. Our world-class researchers work in collaboration with industry, government and the community to tackle the big issues of sustainability. The following gives a brief example of our research expertise:



### Griffith MicroGrid helps solve peak demand

Leading researchers from Griffith University's Research Engineering Centre (GUREC), together with power electronics company Elevare Energy and renewable energy engineers Sun State Solar have developed the first high performance grid- and household-based distributed energy storage system to deal with peak demand.



### Australian Rivers Institute supports water management and research in China

The Australian Rivers Institute is supporting the work of government departments and research organisations in China, through its expertise in environmental water management, river restoration and aquatic ecosystem health assessment. The Institute pioneers environmental research for rivers, coasts and catchments and has established formal collaborations with the Chinese Academy of Science, leading universities and research institutes within the Ministry of Environment and Ministry of Water in China.



## Solution at hand for saving Great Barrier Reef

Griffith University's Australian Rivers Institute has identified thousands of hectares of rapidly eroding gullies in the rivers that feed fine sediment into the waters of the Great Barrier Reef. These giant alluvial gullies can be tens of hectares in area, each producing tens of thousands of tonnes of sediment to the reef each year.

The good news is that after six years of intensive field work, there is a solution for fixing these gullies and significantly improving the water quality of the reef. In our rehabilitation pilot study, we have demonstrated that sediment run-off can be reduced by 75 per cent in two years.

## Griffith Climate Change Response Program

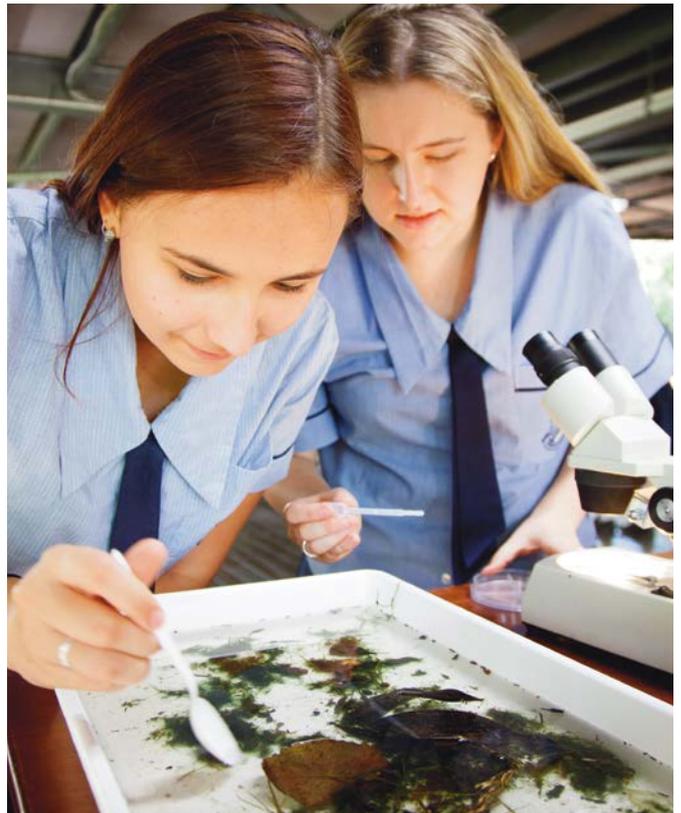
This program includes researchers who have expertise and are investigating climate change adaptation and mitigation problems and issues in the following fields:

- urban and regional planning
- coastal management
- environmental and ecological sciences, including a special focus on rivers, biodiversity and ecosystems
- engineering and architecture
- governance, including policy
- information technology, data information management, and decision support.

## Sustainable Built Environment National Research Centre

Griffith University joined the Sustainable Built Environment National Research Centre (SBEnc) as a core member and lead Queensland research provider. The SBEnc is a key research broker between industry, government and research organisations servicing the built environment industry. There are three research streams focused on environmental, social and economic sustainability: Greening the Built Environment; People, Processes and Procurement; and Productivity through Innovation. These research program areas were identified by national industry stakeholders as the key areas that will drive productivity and industry development in the built environment industry.

We are committed to fostering a sustainable society



EcoCentre, Nathan campus (N68)

## Community engagement and partnerships

Goal: Contribute to a robust, equitable and environmentally sustainable society by fostering engagement and partnerships focused on sustainability.

Griffith has a longstanding commitment to community engagement and values its partnerships with local communities, business, industry and government at regional, national and international levels. Through mutually beneficial partnerships, the University responds to community need, exchanges knowledge and offers opportunities for staff and students to participate in community-based learning and research activities. Examples of engagement activities and partnerships include:

### Griffith Centre for Coastal Management

- The Griffith Centre for Coastal Management runs award winning BeachCare and CoastEd programs.
- More than 36,000 primary and secondary students have benefitted from the CoastEd program to date.

### Griffith's EcoCentre

- The EcoCentre promotes sustainability through collaborative public awareness education programs in partnership with industry, government and the community.
- Since 2001, 180,000 visitors have participated in a wide range of activities, of whom 56,000 attended school-based learning at the Toohey Forest Environmental Education Centre, a partnership between the Queensland Department of Education and Training and Griffith University.

### Griffith Centre for Sustainable Enterprise

- The Griffith Centre for Sustainability Enterprise was set up to inform and assist development of sustainable enterprise through research, teaching and engagement.
- The Centre hosts a free Sustainable Enterprise seminar series designed to be interactive and promoting open discussion on a wide range of sustainability issues.

### Water on Tap machine trialed on Gold Coast campus

- A partnership between Healthy Waterways and Griffith's Gold Coast Student Guild resulted in the trial of a revolutionary new initiative.
- Water on Tap is the first vending machine in Australia to dispense both reusable water bottles and free chilled water.
- The machine is one of only three being piloted in South East Queensland.

### Griffith hosts Logan Eco Action Festival (LEAF)

- Griffith's Logan campus hosts the Logan Eco Action Festival (LEAF), held each year with over 6000 community members attending.

### Australasian Campuses Towards Sustainability (ACTS)

- Griffith University has hosted the secretariat for the Australasian Campuses Towards Sustainability (ACTS) since 2004.
- ACTS promotes and supports best sustainable practice in the Australasian higher education sector. The Secretariat is located in Griffith's EcoCentre.

# Sustainability has consistently been a part of our 40 years of rapid growth

## Environmental performance (sustainability)

The University's Strategic Plan includes a commitment to environmental sustainability through building design, energy, water, and waste management practices. The Sustainability Plan 2013–2015 articulates this further through the development of actions and performance indicators. Campus Life's contribution to achieving these goals is through energy and water reduction, recycling and reducing waste to landfill, ensuring ecological issues are considered in the campus landscapes and adherence to the Grows at Griffith strategy.

### Carbon emissions

Each year the University measures and reports on its greenhouse gas (GHG) emissions.

**KPI** – CO<sub>2</sub> emissions are in line with the sector average (CO<sub>2</sub>-e Scope 1&2)

- At 1.56 tCO<sub>2</sub>-e per EFTSL + FTE Griffith emissions continue to track against the 2014 sector mean of 1.58 tCO<sub>2</sub>-e and perform well against similarly sized universities.
- Griffith's emissions per square metre GFA of 134.61 kg/m<sup>2</sup> is below the sector mean of 136.9 kg/m<sup>2</sup> GFA, however, is slightly above the similar sized universities average of 132.14 kg/m<sup>2</sup>.

### CO<sub>2</sub> Emissions (EFTSL+FTE)

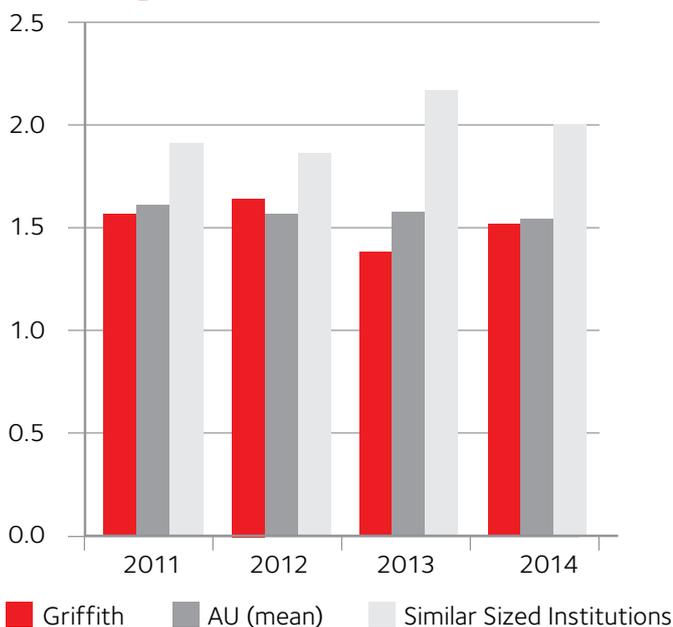


Chart 1: CO<sub>2</sub> Emissions per GFA (t/EFTSL) 2010/11 – 2013/4

### Energy consumption

**KPI** – Energy consumption per EFTSL is in line with the sector average

- Griffith continues to perform well in its consumption of energy, with 30% less energy consumption than the sector average, and 50% less than similar universities.
- Griffith's energy consumption, as a measure of GFA, in 2014, was 0.55 GJ/m<sup>2</sup> compared with the sector average of 0.71 GJ/m<sup>2</sup> and the similar university average of 0.78 GJ/m<sup>2</sup>.

### Energy Consumption per EFTSL

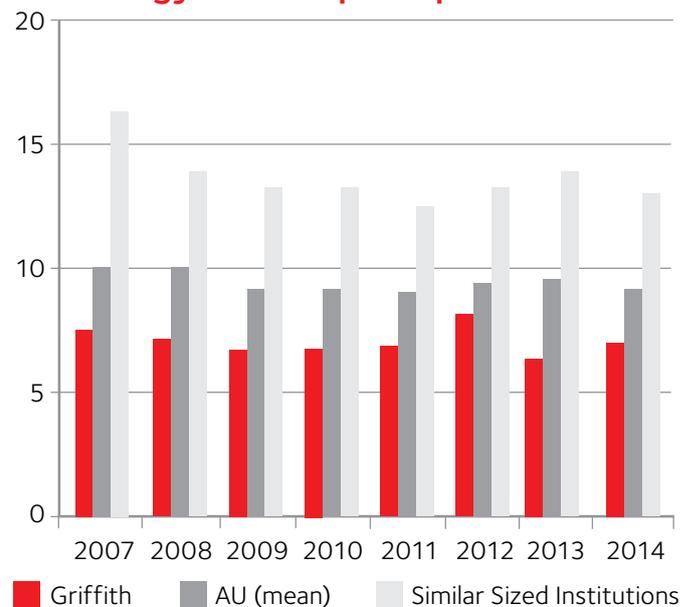


Chart 2: Energy consumption per EFTSL (Gj per EFTSL) 2007 - 2014

The University has invested \$1 million to meter all buildings on our five campuses. It has been a priority over the past three years to enable us to better target energy reduction measures.

## Water Consumption

**KPI** – Maintain water consumption below the sector average

- Griffith University's water consumption per sqm GFA is 0.55 kL/m<sup>2</sup> which is well below (30%) the 2014 sector average of 1.06 kL/m<sup>2</sup>, and per EFTSL, Griffith University's consumption is 7.5 kL/EFTSL, in comparison to the sector average of 13.5 kL/EFTSL.

### Water Consumption per EFTSL

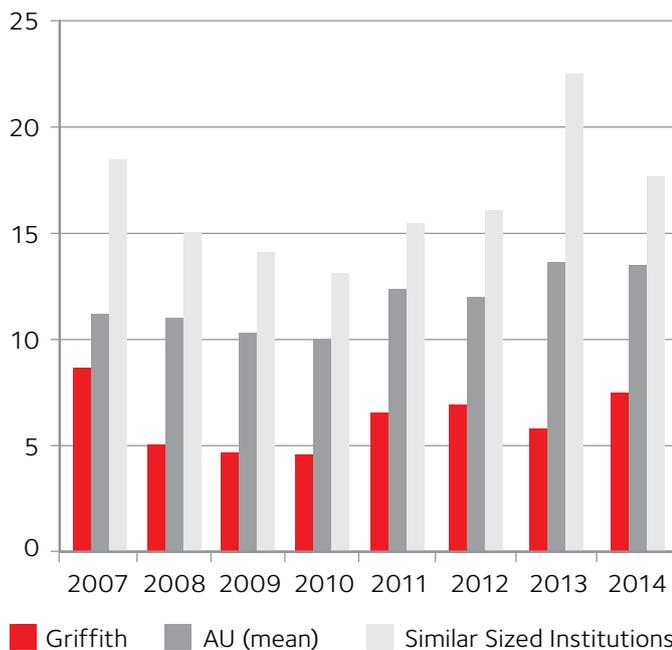


Chart 3: Water consumption per GFA (kL/EFTSL) 2007 - 2014

Another sustainability drive within Griffith is the push to reduce energy consumption in our data centres by consolidation and virtualisation of infrastructure, as well as facilities upgrades.

## Waste

**KPI** - 5% reduction in waste to landfill per EFTSL per annum

- Griffith waste to landfill has reduced from 103.7 kg/EFTSL in 2013 to 62.4kg/EFTSL in 2014 (40% decrease in waste). Although there has been a significant reduction in waste, it is still almost double that of similar sized institutions and sits well above the sector average of 38.8 kg/EFTSL. Further work is required.
- Recycled waste accounts for 13% of all waste generated which is up 1% on 2013 and 5% on 2012.

### Waste to Landfill - kg/EFTSL

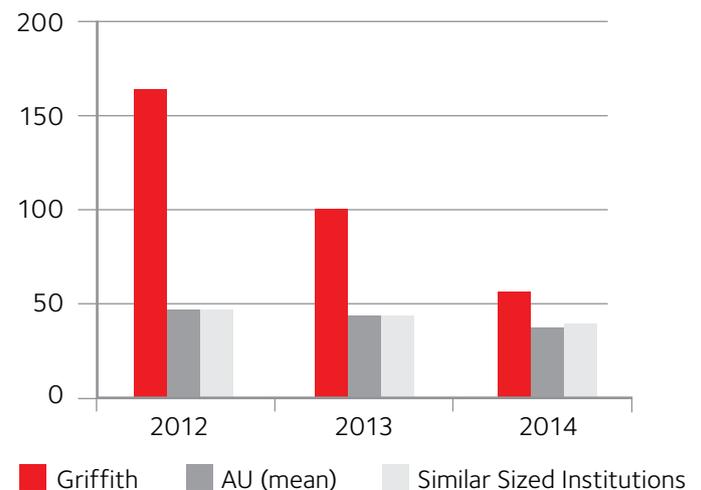


Chart 4: Waste to landfill (kg/EFTSL) 2012 - 2014

Composting of organic waste is being systematically introduced in food outlets, College Dining areas and to the wider university community. To date, the combined annual savings is 1.42 tonnes of organic waste being diverted from landfill.

# We continue to work to reduce our environmental impact

## Procurement

**KPI** – 5% reduction in university-wide paper usage

The University community has taken hold of our target to reduce paper usage resulting in reductions of 9.1% in 2013, 9% in 2014 and 13.4% in 2015. Printing of course packs was reviewed and printed learning resources ceased to be provided from Semester 1 2015.

Procurement strategies over recent years have included:

- Incorporating sustainability into the University's Procurement Policy.
- Continuing to implement sustainable procurement practices into all contracts and key supply arrangements as they fall due for re-tender.
- Promoting the use of technology to reduce paper usage.

## Biodiversity: Grows at Griffith strategy

**KPI** - Native species (appropriate to the local region) to be used in campus landscaping

A 'Grows at Griffith' strategy that focuses on species endemic to the local region continues to be rolled out on all campuses. This includes a rare and threatened plant walk on the Gold Coast campus and a native arboretum on the Logan campus.

- Since 2014 staff, students and visitors on the Gold Coast campus have been able to view six of south-east Queensland's rarest and most endangered native plants - from critically endangered bottle trees to the largest terrestrial orchid in Australia. The new Rare and Threatened Plant Walk includes signs with QR codes that provide links to videos and fascinating facts.
- In late 2013 a partnership with Logan City Council, CSIRO, Water and Carbon Group Pty Ltd and the Logan Golf Club received a Biodiversity Grant of \$1,595,897 provided by the Australian Government for the next five years for the restoration of Slacks Creek. Griffith's Logan campus is the largest project site with 8 hectares being revegetated, featuring a native arboretum. The first phase of planting the arboretum was completed in the second half of 2014 with over 7,000 trees.



Professor Catherine Pickering and PhD student Mark Ballantyne. Grows at Griffith app developers.

We ensure campus expansion is sensitive to our natural environment



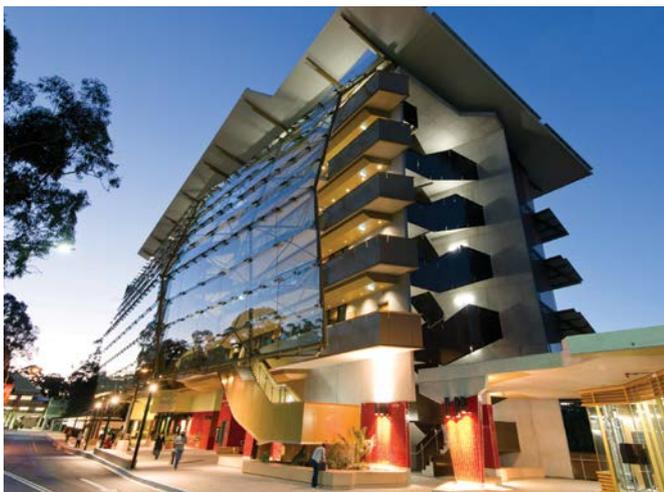
## Planning and development

**Goal: All planning and development considers the environmental sensitivity of our campuses and incorporates principles of sustainability.**

Griffith University has a deserved reputation for environmental responsibility and leadership. The University's Campus Master Plans ensure campus expansion is sensitive to our natural environment and preserves as much as possible of the surrounding ecosystems. Griffith University applies environmentally sustainable design to all new buildings and refurbishments.

**The Sir Samuel Griffith Centre**, located on the Nathan campus and occupied in July 2013, is Griffith's capstone project in its 40 year history as a leader in environmental science. The 6 star green star building, powered by solar and hydrogen technology, is an example of genuine sustainable energy alternatives.

The Centre showcases Griffith's commitment to finding practical solutions to environmental issues. It is a model for off grid and remote communities in Australia and internationally.



Sir Samuel Griffith Centre, Nathan campus (N78)

## New Griffith Business School building leads the way for solar at Gold Coast campus

In 2014, the new Griffith Business School building (G42) became the location of the Gold Coast campus's first renewable energy source.

The 57 kW solar array on the seven-storey building's roof provides approximately 25% of the building's net power consumption. Linked with low energy lighting and equipment and a high efficiency solar-glass facade the design creates a benchmark for the campus.

## Griffith excels in creating \$23.3 million green carpark

Griffith's new Gold Coast campus Multistorey Carpark (G55) was completed in May 2015 and has been designed to be consistent with sustainability principles.

A simple choice to paint the ceiling white to increase reflectivity and use LED lighting, allows a reduction in light fittings by 25% with a commensurate reduction in energy use. An open, and striking, facade design allows cross ventilation, alleviating the need for mechanical ventilation while maintaining significant natural lighting levels.

On the roof a 100 kW photovoltaic array provides day time energy production well in excess of that used by the car park itself and the surplus is exported for running other campus facilities. Also on the roof is a highly visible wind turbine providing additional energy after dark. This is the first of its type used at Griffith and one of very few in South East Queensland.



Multistorey Carpark 2, Gold Coast campus (G55)

# New initiatives enhance our sustainability journey

## Travel

Goal: To maximise the use of sustainable transport options

With multiple campuses and with the collaborative nature of university work involving interstate and international institutions, this can be challenging. To overcome these constraints and to reduce carbon emissions public transport, carpooling and cycling are encouraged as alternatives to private cars.

- A major development on the Gold Coast was the official opening of the new light rail system in July 2014. With two stations situated adjacent to the campus, the light rail system plays an important role in delivering staff and students to the University's doorstep.
- An intercampus bus provides services between Nathan and Mt Gravatt campuses and a subsidised bus, operated by the Student Guild, runs between the Gold Coast and Nathan campuses.
- Over the past three years, we have worked to reduce the impact of our vehicles. As at 2015, more than 90% of the University's pool vehicles are four-cylinder vehicles, exceeding our target of 85%.

More than 90% of the University's pool vehicles are four-cylinder vehicles, exceeding our target of 85%.

Griffith's new Gold Coast carpark not only has solar panels and a wind turbine, but has also been landscaped with native plants to create green walls.

More than 1.2 million passengers were transported by Griffith's free shuttle bus between Nathan and Mt Gravatt campuses from 2013 to 2015.



## Unified Collaboration project

Griffith's Unified Collaboration project has also helped to reduce our travel needs. Over the past two years, the project has deployed over 6,000 video phones and integrated them with a wide variety of collaborative technologies. This has allowed staff to collaborate in a more creative way by allowing easy connection to video conference rooms, mobile devices and external participants on campus or at some other location.

Sustainability has been one of the key drivers in this project. Integration of technologies has helped to reduce travel times between our campuses and increase productive time. To give an example, the number of video conferences in 2014 almost doubled the number for 2013. Estimated savings made from video conferencing in 2014:

- 365,396 km (distance saved)
- 22,747 hrs (time saved)
- 72.17 CO<sub>2</sub>e saved (in tonnes)
- \$1,958,119 saved in staff and travel costs.

Pictured right: Griffith Business School, Gold Coast campus (G42)



GRIFFITH BUSINESS SCHOOL



Griffith UNIVERSITY

Open Day

26 July 9am-2pm

Wildlife display, robots and more

Discover our degrees

01

Glink

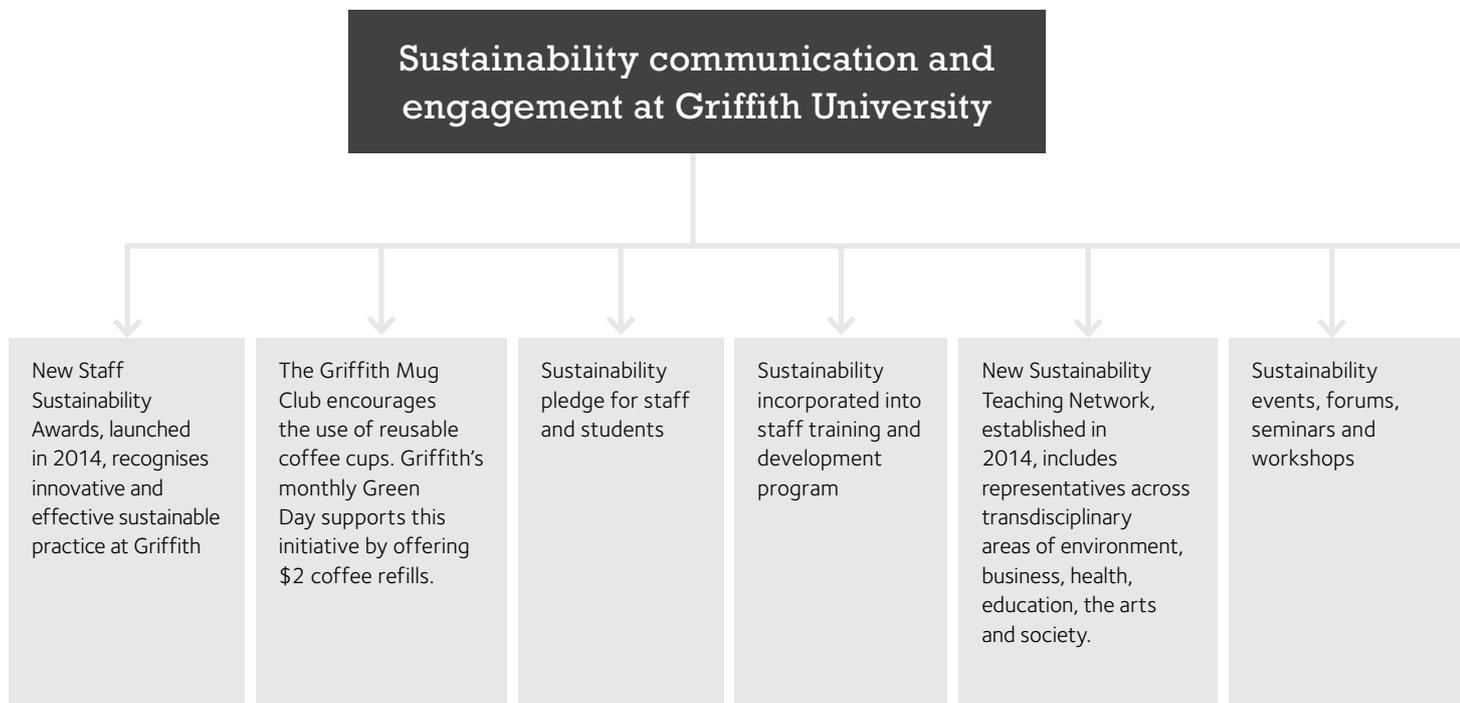
# Engaging everyone in our Sustainability agenda is essential

## Strategies to engage the University community

It has been important to engage Griffith staff and students in the University's sustainability agenda:

- Griffith's Staff Sustainability Awards, launched in 2014, recognise innovative and effective sustainable practice at the university. Both group and individual nominations represented many areas of the university that are working to practice sustainability in their element.
- Griffith's Sustainability Commitment (pledge) encourages staff and students to sign up to making small changes every day to help us to reduce our environmental impact.
- The Sustainability Newsletter for staff and students highlights and celebrates sustainability initiatives at Griffith.
- Griffith's Sustainability Week, launched in 2014, engages staff and students and the community in Griffith's sustainability agenda.
- Griffith's Sustainability Teaching Network developed and launched a new online Sustainability Hub for learning and teaching during Sustainability Week 2015.

The diagram below shows Griffith's Sustainability communication and engagement strategies:





Students learning about marine life during Griffith Sustainability Week 2015



# We will continue to mature our sustainability commitment

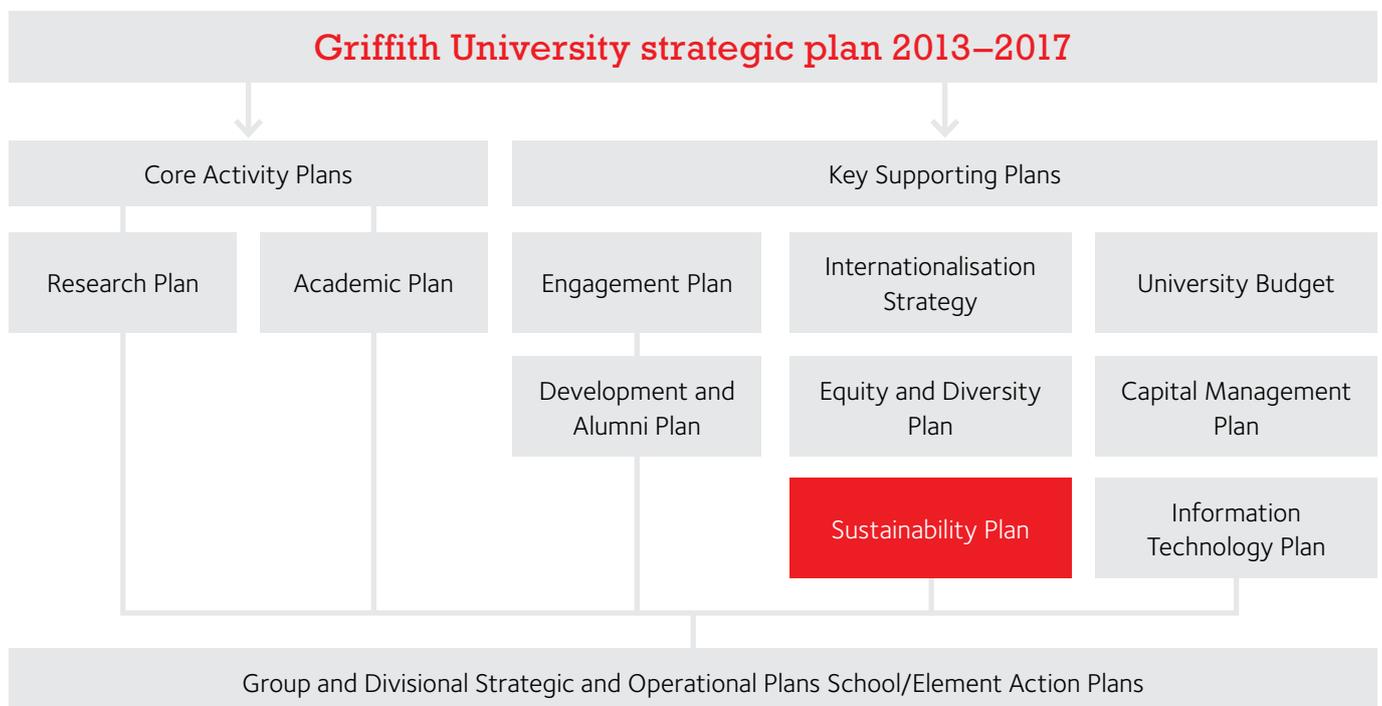
## Future initiatives

Griffith University will review the Sustainability Plan in 2016. We will continue to review, plan and implement strategies to reduce our carbon footprint and contribute to sustainability.

Sustainability will continue to be incorporated into university activities:

- a Sustainability Awareness module for staff induction, developed in 2015, will be launched in early 2016
- Campus Life's Environmental Performance website with real time data and practical tips will be launched in early 2016
- a Green Labs Pilot Program, developed in 2015, will be piloted in selected teaching and research laboratories in 2016
- a Sustainable Transport Strategy is being developed
- In August 2015 the University Council approved a new academic calendar for the University. From 2017 the current standard semester length will be reduced from 13 weeks to 12 weeks and teaching will be spread across three semesters each year. Sustainability will continue to be integrated in learning and teaching at Griffith.

## Planning framework





**Nathan campus**

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