



# SUSTAINABLE TRANSPORT STRATEGY 2017-2021



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prepared

by

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## **ACKNOWLEDGEMENTS AND PROJECT INFORMATION**

Special thanks to the University of Tasmania (UTAS) Commercial Services and Development staff and other UTAS staff who have contributed to delivering on the various transport initiatives outlined in the first five year strategy, as well as their contributions to designing this next five year plan. UTAS is also grateful to the hundreds of students who have participated in data collection and analysis, design and construction of bike hubs and digital data collection tools, through to organising and engaging in activities and surveys.

Due acknowledgement is given to the project team outlined below who have contributed many hours to the development of this strategy and the associated consultation process. Special acknowledgement to Dr Anna Lyth who, in a multitude of roles including consultant, planner, teacher, researcher and mentor, has been a key driver of the UTAS' transport planning journey and successes. Kamal Singh has also been involved for over seven years as a manager, officer and PhD student working to plan, deliver and assess the success of transport initiatives. Corey Peterson has also played a significant role in implementing the strategy by ensuring initiatives were planned, resourced and delivered with as many students and staff involved as possible. He also fostered and managed key external stakeholder partnerships.

Also thanks to the more than 750 UTAS staff and students who provided feedback and ideas during the consultation phase.

Finally, our appreciation to our external partners who are so important in helping us work together to deliver the objectives of this strategy. We particularly thank the following organisations for contributing their time and input:

*City of Hobart*

*City of Launceston*

*Burnie City Council*

*Metro Tasmania*

*Tasmanian Department of State Growth*

*Tasmanian Climate Change Office*

*Tasmanian Bus Association*

*Tamar Bicycle User Group*

*Cycling South*

*Cradle Coast Authority*

*Bicycle Network Tasmania*

*The Heart Foundation (Tasmania)*

*Sustainable Living Tasmania*

### **Project team**

*Anna Lyth, RED Sustainability Consultants (Principal Consultant)*

*Corey Peterson, UTAS Sustainability Manager (Project Director)*

*Kamal Singh, UTAS Sustainability Project Officer (Project Officer)*

### **Supporting documents and further information**

Other supporting reference documents include the *UTAS Sustainable Transport Strategy 2012-2016* and the *UTAS Travel Behaviour Survey* summary reports, 2013 and 2015. These can be accessed at:

<http://www.utas.edu.au/commercial-services-development/sustainability/transport>

## EXECUTIVE SUMMARY

This *Sustainable Transport Strategy* (STS) has been developed by the University of Tasmania (UTAS) to guide investments and actions that deliver more socially, environmentally, and economically sustainable transport outcomes and travel behaviours. This STS builds on the inaugural *UTAS Sustainable Transport Strategy 2012-2016*<sup>1</sup> and its achievements.

The STS refers to all UTAS Australian campuses and facilities (based in Tasmania and New South Wales) and covers transport needs, issues, and opportunities for the whole UTAS community, including students, staff, and visitors. In Tasmania, this includes campuses and facilities in the State's north, south, and northwest regions. In New South Wales, campuses and facilities are located in the inner suburbs of Sydney at Rozelle and Darlinghurst.

The STS recognises that transport issues are community-wide and that, in addition to actions UTAS can take as an institution, individuals and external stakeholders, including governments and transport service providers at all levels, also have a role to play. Similarly, decisions UTAS makes about campus development, infrastructure, and processes have an impact in the communities and places in which it operates. Consequently, UTAS acknowledges the importance of collaboration and engagement with community and stakeholders to deliver mutually beneficial outcomes for the University, its community, and the broader communities in which it operates.

### The need for this strategy

UTAS is committed to sustainability in its operations, education, research and outreach as evidenced through signing the international *Talloires Declaration*<sup>2</sup> in 2009 and as covered in the University's sustainability mission statement and *Sustainability Policy*<sup>3</sup>. A range of other factors have contributed to the need for this strategy including:

- A commitment to work with other agencies to improve equitable access to university education services and reduce transport and educational access disadvantage;
- The recognition of the importance of facilitating a healthy work and study environment through improvements, support, and promotion of walking, cycling, and other active modes;
- The need to reduce the vulnerability of the University and its community to fluctuating transport fuel costs;
- A responsibility to support sustainable transport options when planning and designing new university facilities to reduce urban traffic congestion, parking demand, and provide transport mode choice;
- The obligation to report university greenhouse gas (GHG) emissions from a range of sources via the *National Greenhouse and Energy Reporting* (NGER)<sup>4</sup> system, and develop strategies to reduce energy consumption and GHG emissions over time;
- A limited financial and physical capacity to meet increasing demand for on-campus parking and responsibility to reduce the impact of parking demand in neighbourhoods surrounding campuses; and

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<sup>1</sup> UTAS Sustainable Transport Strategy 2012-2016 can be viewed at <http://www.utas.edu.au/commercial-services-development/sustainability/transport>

<sup>2</sup> The *Talloires Declaration* (TD) is a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities. It has been signed by over 350 universities in over 40 countries [http://www.ulsf.org/programs\\_talloires.html](http://www.ulsf.org/programs_talloires.html)

<sup>3</sup> UTAS Sustainability Mission and Sustainability Policy <http://www.utas.edu.au/sustainability/sustainability-mission>

<sup>4</sup> *National Greenhouse and Energy Reporting* <http://www.environment.gov.au/climate-change/greenhouse-gas-measurement/nger>

- The need to reduce business transport/travel inefficiencies and supply chain costs.

## Consultation

The STS has been developed in consultation with internal (staff and students) and key external stakeholders. Some 750 students and staff provided online feedback in April 2016. University representatives from several operational units and student representatives also participated in five further stakeholder consultation forums through the process of developing this strategy.

Represented organisations at an external stakeholder workshop included Metro Tasmania, Hobart, Launceston and Burnie councils, Cradle Coast Authority, Tasmanian Department of State Growth, Tasmanian Climate Change Office, the Heart Foundation, peak transport organisations, and Sustainable Living Tasmania. Some of these stakeholders have their own strategic plans and planning processes that are relevant to this strategy, including the City of Hobart (CoH) and City of Launceston (CoL), Metro Tasmania, Department of State Growth, and the Tasmanian Climate Change Office. UTAS representatives have contributed to most of these planning processes. Involvement in relevant internal and external planning processes allows cross-fertilisation of ideas and helps to align objectives so all are working collaboratively.

## The planning context

The travel demand generated by university operations and the sustainable transport opportunities and constraints presented depend on a range of local and global factors. Locally, factors include the location of campuses, university activities, student and staff population characteristics, local transport infrastructure, availability and quality of public transport services, urban amenity, and travel behaviour cultures.

Globally, technological innovation and emerging lifestyle consumer behaviours are changing traditional models of travel behaviour and transport consumption. Rapid advances in communication technologies and the emergence of a highly connected society<sup>5</sup>, real time information, sharing<sup>6</sup> and circular<sup>7</sup> economies, developments in electric vehicle technology, and autonomous driver technology all present opportunities for new ways of accessing and using transport. Both these local and global circumstances present opportunities for UTAS to work collaboratively with other agencies and local communities to deliver improved transport outcomes that have both organisational and community co-benefits.

With campuses and facilities located in three regions of Tasmania (South, North, North West), as well as a campus in Sydney's inner west at Rozelle and operations in Darlinghurst, UTAS has a diverse and challenging transport and facilities planning and management profile. Within Tasmania, there are three main campus hubs in Hobart, Launceston and Burnie and a number of smaller campuses and facilities within these cities and surrounding regions.

Managing and planning for the transport needs of UTAS is a multi-faceted challenge. As well as its multiple campus and facility locations, the University has a diverse community of students, staff and visitors, and numerous services and activities occurring at different sites at different times throughout the year. This strategy is particularly cognisant of the following planning context and influences on travel

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<sup>5</sup> Australia smartphone ownership is around 80% and higher for 18-24 year olds. Australians are also App savvy and tend to be early adopters of new technology (Deloitte Mobile Consumer Survey 2015 <http://landing.deloitte.com.au>)

<sup>6</sup> A sharing economy has a range of meanings but here we mean peer-to-peer based sharing of goods and services. Transport examples include city car and bike share schemes where individuals rent the use of a car or bike for short periods of time instead of owning.

<sup>7</sup> The Ellen Macarthur Foundation defines a circular economy as 'one that is restorative and regenerative by design, and which aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles'. (<https://www.ellenmacarthurfoundation.org/circular-economy>)



demand and travel behaviour:

- Different campus sizes, facilities, parking supply and constraints;
- Different regional and city settings including variable access to, and quality of transport infrastructure and services;
- Life-stage influences on travel demand and mode choice;
- Different gender profiles by campus impacting on transport mode preferences;
- A growing and changing student base:
  - Local and international students with varied travel behaviour cultures, transport knowledge and needs; and
  - On-campus and online students, and full-time and part-time students attending campuses at different times.

While student enrolments have increased by 51% between 2013 and 2016 (to almost 30,000 students)<sup>8</sup>, the majority of this increase has been students enrolled in external (online) capacities, hence on-campus student numbers are largely stable overall<sup>9</sup>. The largest campuses are Sandy Bay (Hobart) and Newnham (Launceston), but there are an increasing number of students in smaller facilities as the University consolidates into the Hobart, Launceston, and Burnie city centres. This redistribution is likely to increase in the future with continued expansion programs in these city centres.

The University is also a significant employer with over 6000 employees in 2016 if ongoing, fixed-term and casual staff are counted<sup>10</sup>. The University's facilities and associated activities generate a range of trips and transport infrastructure demands beyond those just focused on the movement of students and staff to and from study or work. Trip types generated by university activities include:

- Trips to and from home to study and work
- Local intra-urban staff business trips
- Visitor trips
- Inter-campus trips that require longer inter-regional land-based travel
- Land-based field work<sup>11</sup>
- Air travel

In Hobart, the Creative Industries and Performing Arts development on Collins Street is expected to be completed by 2018, increasing UTAS' presence in the city centre, while in 2017 new student accommodation on Elizabeth Street will bring significantly more students into the city centre to live. In Launceston, concept plans have been developed for a UTAS Northern Expansion program at Inveresk and other city centre locations. The initiative is a collaboration between the University, State Government, CoL, TasTAFE, and the Australian Government. The State Government, CoL and University are also working on plans for the redevelopment of the remainder of the Newnham site.

UTAS has also joined with the State Government, the Burnie City Council, Cradle Coast Authority, and TasTAFE to sign a Memorandum of Understanding to guide the expansion of the university campus in central Burnie<sup>12</sup>. A Master Plan for a modern, purpose-built campus at West Park in Burnie on the site of the prominent 'Makers Workshop' has been approved. Consolidation of campus and university student accommodation in a more central location in Burnie is likely to improve sustainable transport outcomes in the long run. It will be easier to provide a higher quality bus service to the campus for Cradle Coast

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<sup>8</sup> UTAS enrolment data Semester 1 2016

<sup>9</sup> 83% of all student enrolments in 2013 were on campus in some capacity while this has reduced to 55% due to the growth in external enrolments (UTAS enrolment data Semester 1 2013, 2016)

<sup>10</sup> UTAS Human Resources database

<sup>11</sup> Marine/sea based field trips are also made but are beyond the scope of this strategy.

<sup>12</sup> For more go to <http://www.utas.edu.au/cradle-coast-expansion>

users, while active transport options for those living locally are likely to be feasible for a greater proportion of student and staff studying and working at the new facilities, especially given the location of the campus on the North West Coastal Pathway.

While both the Launceston and Burnie expansion programs will continue beyond the life of the STS 2017-2021, it is crucial to integrate sustainable transport objectives and transport accessibility considerations into the early planning and design phases of these significant developments to ensure maximum benefit is gained for both the university community and the greater Launceston and Burnie communities.

## Monitoring, evaluation and reporting

The UTAS STS includes a commitment to monitoring and reporting key indicators and evaluation. Progress against strategy objectives is reported in Implementation Progress Reports<sup>13</sup> prepared by the Sustainability Manager, while performance indicators are collected through the UTAS Travel Behaviour Survey held biennially, other observational counts of transport users, and bus use data provided by service providers.

Monitoring and reporting progress and data-sharing, as has been done annually since 2013 with government and non-government agencies, also assists the exploration of collaborative opportunities with other stakeholders who have complementary agendas. Data collection thereby underpins a sound evidence base for effective decision-making, and advocacy for wider community transport infrastructure and planning initiatives that will help deliver the aspirations and actions recommended in this STS.

## Progress so far

There have been a number of improvements to the University's transport options brought about by changes to transport infrastructure, bus services, the location of some key facilities, awareness and behaviour-change campaigns, and academic projects. In summary, improvements include (but are not limited to):

- Upgrading of virtual transport facilities (video and internet-based conferencing facilities);
- Changes in parking and carpool supply and pricing at the largest campuses<sup>14</sup>;
- Relocation and expansion of some major facilities in the Hobart CBD (specifically, the Institute for Marine and Antarctic Studies (IMAS) on the Hobart waterfront, and expansion of the Medical Sciences Precinct and Domain facilities);
- Upgrading of active transport facilities, such as the installation of new or retrofitted full-featured end-of-trip cycle facilities (e.g. covered and secure bike hubs with electric bike charging points, repair and water stations) in new facilities and key entry points on main campuses;
- Improvements to way-finding signage;
- Installation of new and upgraded bus stop shelters at all main campuses, including signage improvements;

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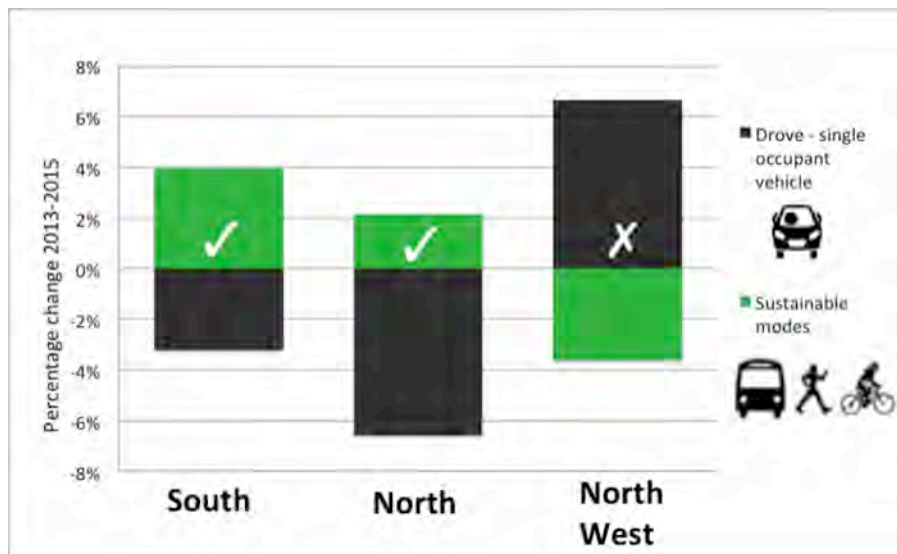
<sup>13</sup> The 2014 Implementation Progress Reports is available at: [http://www.utas.edu.au/\\_data/assets/pdf\\_file/0007/519757/Transport-Strategy-Progress-Report-March-2014\\_for-web.pdf](http://www.utas.edu.au/_data/assets/pdf_file/0007/519757/Transport-Strategy-Progress-Report-March-2014_for-web.pdf)

<sup>14</sup> UTAS has a variety of pricing modes for parking on its largest campuses for staff and students including pre-purchased parking permits and voucher parking (charged by the hour). On the Sandy Bay and Newnham campuses priority carpooling parking and permits are also available for those travelling regularly with two or more people. There has also been an increase in motorcycle and disability parking. See further details at <http://www.utas.edu.au/campus-services/parking/parking-zones>

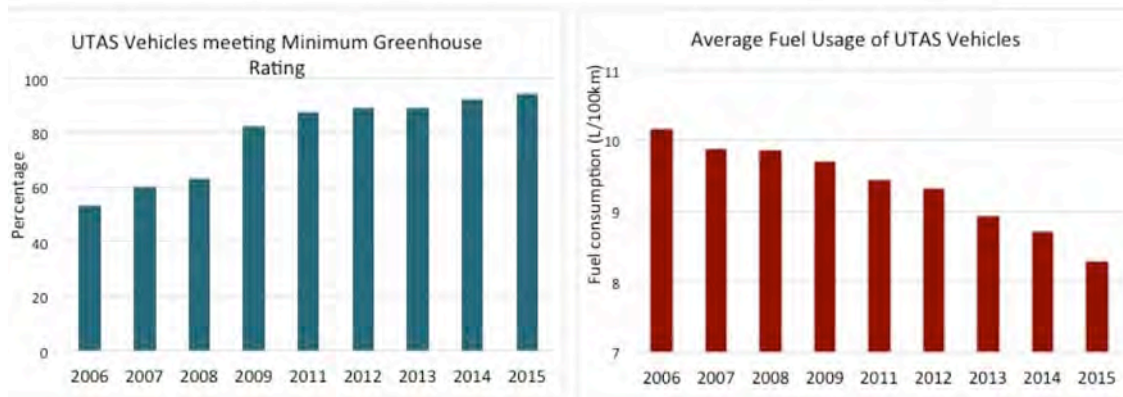
- Implementation of a high frequency (15 min) ‘Turn Up and Go’ bus service between the Newnham and Inveresk campuses and the Launceston CBD, and expansion of the Unibus Sandy Bay to Hobart city service to a year-round through-service reaching to the far north and eastern suburbs;
- Introduction of hybrid and electric vehicles into the University vehicle fleet; and
- Awareness raising and sustainable transport choices promotional campaigns, and promotional and educational tools for informing those accessing university campuses about safe bike routes and behaviour choices such as through the ‘Decide your Ride<sup>15</sup>’ initiative.

**BOX A**

**Overall Performance – change by percentage points in single occupant vehicle and sustainable travel modes 2013-15 (all student and staff participants)**



**Reductions in fuel usage and greenhouse gas emissions – UTAS vehicle fleet**



<sup>15</sup> Decide your Ride is a series of bicycling videos for those interested but unsure about bicycling to and between Sandy Bay and Hobart CBD campuses. The videos and narration show safe introductory routes and provide safe riding tips. The idea came from UTAS PhD research. More information is available at <http://www.utas.edu.au/commercial-services-development/sustainability/transport/decide-your-ride>

Box A shows how the university community overall has progressed in terms of demonstrating more sustainable transport practices. Each Tasmanian<sup>16</sup> region in which the University has a presence has performed differently, although there are a few consistent trends. Overall we can see that when walking, cycling and bus modes are packaged as a sustainable travel category, there is a positive story for the South and North regions. An encouraging story across all regions is an increase in bus use. The potential for continual improvement in this area is positive with further bus timetable, routing and infrastructure improvements in both Launceston and Hobart continuing, providing more frequent and more direct bus services and access at Hobart and Launceston campuses. A new through service implemented in late 2016 along the northwest coast connecting Latrobe and the Burnie campuses may also have a positive impact. While we have seen some improvements in active modes (walking and cycling), the gains are variable depending on the region and the location of the campus, with campuses located in inner urban or CBD settings the best performers.

Further to travel behaviour and sustainable mode choice shifts, the University has also made gains in the fuel efficiency of its vehicle fleet. Box A also shows how the fleet has reduced its overall fuel use and greenhouse gas emissions over time. This is associated with the review of the University's vehicle fleet mix and the matching of vehicles to purpose. The fleet now includes an increasing number of low fuel consuming vehicles including hybrid and electric vehicles.

## Integrating teaching, learning and academic research

The *Sustainability Integration Program for Students*<sup>17</sup> (SIPS) provides opportunities for the University's infrastructure and operational sustainability activities to enhance the academic program with an active learning laboratory in sustainability. SIPS projects have involved students from a number of schools and institutes with academic involvement mostly through the Education for Sustainability Community of Practice (EfS CoP). Significant projects through 2012-2016 included:

- Collection of the largest non-government travel behaviour dataset in Tasmania, the *UTAS Travel Behaviour Survey* (2013 and 2015) tracks staff and student travel behaviour across all campuses and facilities at a set time every two years. The survey was designed and rolled out initially as a Master of Environmental Planning research project in the School of Land and Food and has developed into an ongoing research program.
- Students from the School of Engineering and ICT, and from the School of Land and Food, have participated in transport data collection and analysis through periodic pedestrian, bike and motorcycle movement counts and reporting as well as identification and design of transport improvements (bus stop redesign, bike pathways, etc).
- Students from the School of Architecture and Design regularly participate in the design and construction of bicycle end-of-trip facilities.

## The strategy framework

This strategy is guided by four improvement objectives for the University. These build on the original three objectives guiding the 2012-2016 STS. Related to these overarching objectives are desired outcomes, which also help to focus strategic actions.

The objectives and desired outcomes incorporate three essential principles, primarily the need for:

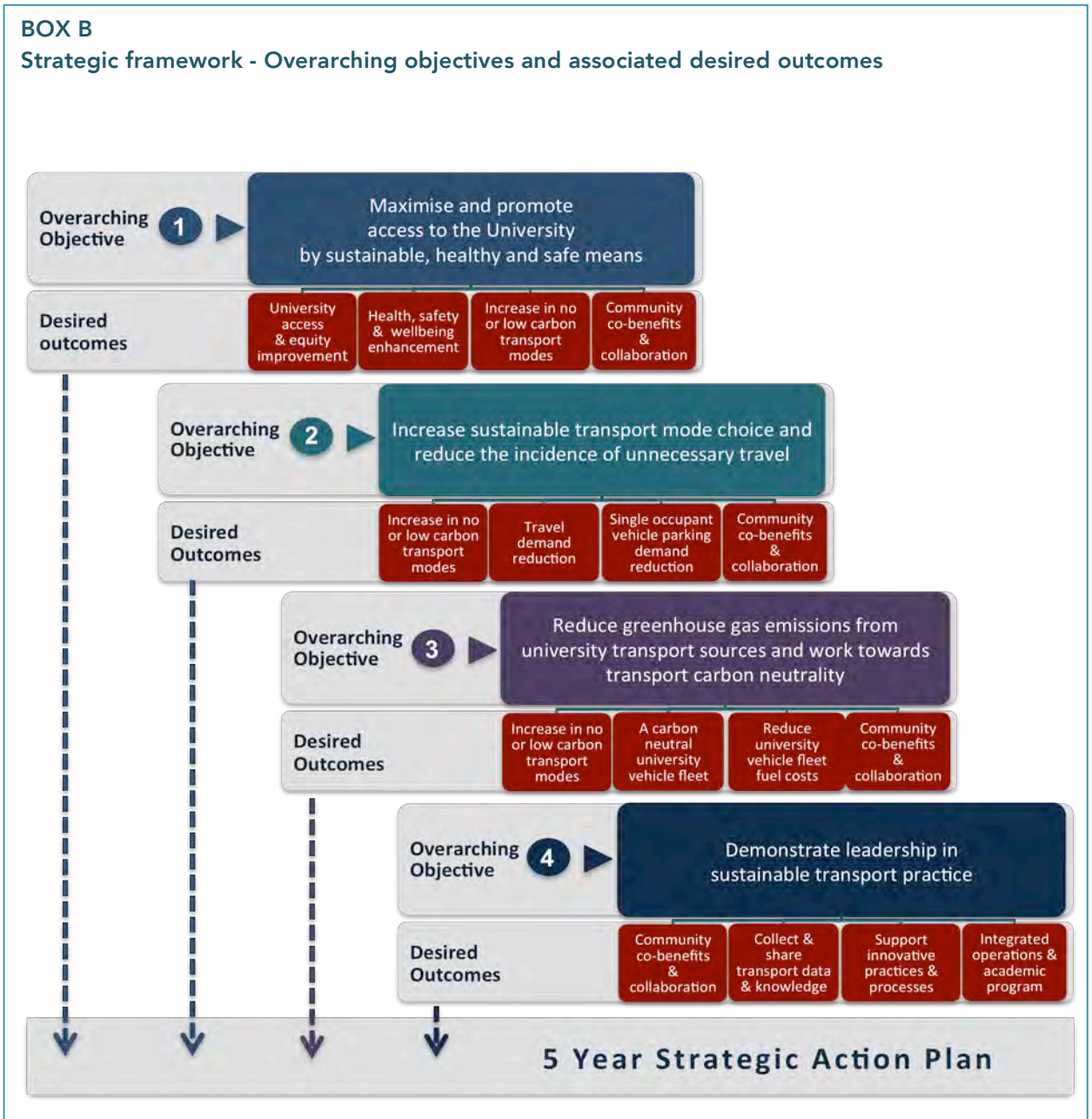
- An integrated whole-of-institution approach to sustainable transport planning and practice;

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<sup>16</sup> Sydney campuses are not included in the 2013-15 change figures as we only have 2015 baseline data for these campuses to work with.

<sup>17</sup> For more about SIP (previously AOSIP) <http://www.utas.edu.au/commercial-services-development/sustainability/aosip>

- Multi-stakeholder collaboration, recognising that a range of agencies are required to help deliver this strategy;
- A strategy that delivers community co-benefits in addition to institutional benefits.



The following explains the intent of each objective.

**OBJECTIVE 1: Maximise and promote access to the University by sustainable, healthy and safe means**

Ensuring a good level of access to the educational and research services offered at the University and facilitating more sustainable transport options where feasible allow the University to:

- Reduce inequities in access to higher education as far as possible through improvements in transport options, online and remote educational services;

- Reduce the vulnerability of the university community to fluctuating transport costs or fuel shocks by improving alternative transport options to single-occupant car use and increasing community resilience;
- Support the continued growth and development of the University by enhancing accessibility to campuses for students, staff and visitors;
- Facilitate safe, active transport options, in turn promoting healthy lifestyles and work/study places and lower-cost travel options;
- Reduce the growth in demand for on-campus and neighbourhood on-street parking, thereby reducing the significant cost of parking provision and reducing the impact of parking demand in neighbourhoods surrounding campuses to improve neighbourhood amenity and traffic safety; and
- Shrink the carbon footprint of the university community's travel.

## **OBJECTIVE 2: Increase sustainable transport mode choice and reduce the incidence of unnecessary travel**

Increasing the proportion of people travelling via sustainable transport modes and minimising single occupant vehicle use where there are opportunities to facilitate and encourage alternatives will help:

- Reduce the growth in demand for on-campus and neighbourhood on-street parking, thereby reducing the significant cost of parking provision and reducing the impact of parking demand in neighbourhoods surrounding campuses;
- Reduce the costs of transport inefficiencies (time and financial) associated with university business travel and improve productivity (including air travel);
- Shrink the carbon footprint as well as other environmental impacts of the university community's travel; and
- Improve neighbourhood and city amenity, and traffic safety.

## **OBJECTIVE 3: Reduce greenhouse gas emissions from university transport sources and work towards transport carbon neutrality**

As well as positioning UTAS as a carbon responsible and sustainable higher education institution in the global educational market and within the nation and state economy, this objective focuses the University on:

- Meeting its regulatory compliance requirements associated with NGER;
- Meeting university energy consumption and GHG emission reduction targets;
- Meeting the aspirations of many staff and students to be part of an institution and community that is taking action to address climate change;
- Reducing the University's vehicle fleet costs through reduced consumption of transport fuel;
- Reducing the carbon footprint of goods and services procured by the University by considering GHG emissions associated with supply chains; and
- Addressing transport and work productivity inefficiencies through reducing travel demand generated by university business operations.

## **OBJECTIVE 4: Demonstrate leadership in sustainable transport practice**

The University's mission statement specifically states 'The University will provide leadership within its community, thereby contributing to the cultural, economic and social development of Tasmania'<sup>18</sup>. The first UTAS STS 2012-2016 has demonstrated considerable leadership in developing sustainable transport agendas, delivering innovative solutions, working collaboratively within the community, leading an innovative teaching, learning and research program, and collecting and sharing valuable data that is informing transport planning throughout Tasmania. While UTAS has much less of a presence and influence in New South Wales, it can also contribute to the sustainability of the local communities in which it operates. As a consequence, the University is not only delivering for itself but for wider society.

### **Strategic actions**

Appendix A presents a matrix outlining some 39 agreed actions for this STS 2017-2021. Initiatives will require working with a range of internal UTAS units and external partners. The strategic actions link directly to the four strategy objectives and include actions associated with:

- University campus and facilities planning and development
- University vehicle fleet and staff business travel
- Sustainable Transport promotion and safety
- Parking
- Information and communications technology
- Stakeholder engagement and collaboration
- Data and performance monitoring
- Student, academic and community engagement

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<sup>18</sup>Mission statement in the UTAS Open for Talent Strategic Plan  
[http://www.utas.edu.au/\\_data/assets/pdf\\_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF](http://www.utas.edu.au/_data/assets/pdf_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF)

## 1 ABOUT THIS STRATEGY

### 1.1 Purpose

This *Sustainable Transport Strategy* (the STS) has been developed by the University of Tasmania (UTAS) to guide investments and actions that deliver more socially, environmentally, and economically sustainable transport outcomes and travel behaviours. This STS builds on the inaugural *UTAS Sustainable Transport Strategy 2012-2016*<sup>1</sup> and its achievements.

The STS refers to all UTAS Australian campuses and facilities (based in Tasmania and New South Wales) and covers transport needs, issues, and opportunities for the whole UTAS community, including students, staff, and visitors. In Tasmania this includes campuses and facilities in the State's north, south, and Cradle Coast regions. In New South Wales, campuses and facilities are located in the inner suburbs of Sydney at Rozelle and Darlinghurst.

The STS recognises that transport issues are community-wide and that, in addition to actions UTAS can make as an institution, individuals and external stakeholders, including governments and transport service providers at all levels, also have a role to play. Similarly, decisions UTAS makes about the development of its campuses, infrastructure, and processes have an impact, whether positive or negative, in the communities and places in which it operates. As a consequence, UTAS acknowledges the importance of working collaboratively, and engaging with the community and stakeholders to deliver mutually beneficial outcomes for the University, its community, and the broader communities in which it operates.

#### 1.1.1 The need for this strategy

Universities are major trip generators and users of transport services. Many university campuses operate like mini towns, managing significant parking facilities, campus roads, people and vehicle movements, and relationships with public transport service providers and surrounding communities. Universities also procure and maintain their own vehicle fleets, are affected by supply chain costs associated with changing transport costs, and develop policies and processes about travel, whether associated with staff and student local movements or domestic and international air travel. They are also significant consumers of energy and emitters of greenhouse gases.

Importantly, universities have a responsibility to enhance the accessibility of their facilities and services to students for a range of social, economic and environmental reasons. Improving accessibility by only providing parking for motor vehicle access creates personal costs, operating costs, and community-wide externality costs (such as traffic congestion, noise and air pollution). Consequently it is also important to promote and enhance a range of transport mode and travel efficiency options to students, staff and visitors.

UTAS has international standing and is an organisation that strives for excellence in its activities and leadership within its community. It is the only university in Tasmania and therefore plays an important part in the State's cultural, economic and social development. This, and its role in providing leadership within the State, is reflected in the University's mission statement<sup>2</sup>.

The University is committed to sustainability in its operations, education, research and outreach as evidenced through signing the international *Talloires Declaration*<sup>3</sup> in 2009 and as covered in the

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<sup>1</sup> *UTAS Sustainable Transport Strategy 2012-2016* can be viewed at <http://www.utas.edu.au/commercial-services-development/sustainability/transport>

<sup>2</sup> University of Tasmania's Strategic Plan 2012-Onwards, p.3.  
[http://www.utas.edu.au/\\_\\_data/assets/pdf\\_file/0009/876924/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF](http://www.utas.edu.au/__data/assets/pdf_file/0009/876924/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF)

<sup>3</sup> The *Talloires Declaration* (TD) is a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities. It has been signed by over 350 universities in over 40 countries  
[http://www.ulsf.org/programs\\_talloires.html](http://www.ulsf.org/programs_talloires.html)



University's sustainability mission statement and *Sustainability Policy*<sup>4</sup>. A range of other factors have contributed to the need for this strategy including:

- A commitment to work with other agencies to improve equitable access to university education services and reduce transport and educational access disadvantage;
- The recognition of the importance of facilitating a healthy work and study environment through improvements, support, and promotion of walking, cycling, and other active modes;
- The need to reduce the vulnerability of the University and its community to fluctuating transport fuel costs;
- A responsibility to support sustainable transport options when planning and designing new university facilities to reduce urban traffic congestion and parking demand, and to provide transport mode choice;
- The obligation to report University greenhouse gas (GHG) emissions from a range of sources via the *National Greenhouse and Energy Reporting* (NGER)<sup>5</sup> system, and develop strategies to reduce energy consumption and GHG emissions over time;
- A limited financial and physical capacity to meet increasing demand for on-campus parking and responsibility to reduce impact of parking demand in neighbourhoods surrounding campuses; and
- The need to reduce business transport/travel inefficiencies and supply chain costs.

### 1.1.2 Sustainable transport – meaning and interpretations

Sustainable transport is now an established term for public policy agendas nationally and globally. While there are different emphases around definition or meaning, it is broadly understood in Australia to refer to transport that avoids or minimises adverse effects on the environment and the depletion of natural resources<sup>6</sup>. Global sustainability agendas, however, suggest a more holistic meaning where social justice and economic development considerations are included. For instance, a comprehensive definition adopted by European Transport Ministries<sup>7</sup> refers to a sustainable transport system that:

- *Allows basic access and development needs* of individuals, organisations and society to be met safely and in a manner consistent with human and ecosystem health, and promotes equity within and between successive generations;
- *Is affordable, operates fairly and efficiently*, offering transport mode choice, and supporting a competitive economy and balanced regional development;
- *Limits emissions and waste* within the planet's ability to absorb them, uses renewable resources at or below their rates of generation, and uses non-renewable resources at or below the rates of development of renewable substitutes, while minimising the impact on the use of land and the generation of noise.

While this is a detailed definition, the social, economic and environmental components resonate with the well-rounded aspirations of this strategy and the basic responsibility of the University to: provide students with safe and equitable access to university services, encourage healthy and safe lifestyles and workplaces, limit the environmental impact of travel activity, minimise social and organisational costs, and support Tasmania's regional development.

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<sup>4</sup> UTAS sustainability mission and Sustainability Policy <http://www.utas.edu.au/sustainability/sustainability-mission>

<sup>5</sup> *National Greenhouse and Energy Reporting* <http://www.environment.gov.au/climate-change/greenhouse-gas-measurement/nger>

<sup>6</sup> For example the Macquarie Dictionary.

<sup>7</sup> Centre for Sustainable Transportation, 2005. *Defining Sustainable Transportation*, Prepared for Transport Canada by the Centre for Sustainable Transportation, University of Winnipeg (p.5). [http://cst.uwinnipeg.ca/documents/Defining\\_Sustainable\\_2005.pdf](http://cst.uwinnipeg.ca/documents/Defining_Sustainable_2005.pdf)

## 1.2 Process and guiding principles

This STS has embraced a participative and collaborative process in line with strategic values and operating principles committed to in UTAS' *Open to Talent: Strategic Plan 2012-Onwards*<sup>8</sup>, primarily:

- Creating and serving shared purpose;
- Nurturing a vital and sustainable community;
- Focusing on opportunity; and
- Collaborating in ways that helps us be the best we can be.

In addition to these high order strategic values, the STS also fulfils the obligations outlined in the University's *Sustainable Built Environment Designs Policy*<sup>9</sup> and adopts the seven principles outlined in the University's *Sustainability Policy 2015*<sup>10</sup>, namely:

- **Open participation** - there will be opportunity for broad and transparent involvement in decision-making processes related to sustainability across the University community.
- **Integration** - long-term economic, social and environmental considerations will be integrated into decision-making processes; strategic and operational planning; student experience, research, learning and teaching and community engagement; and enabled through sustainable practices.
- **Shared responsibility** - all members of the University community share responsibility for the University's sustainability performance.
- **Leadership, innovation, creativity and best practice** - creative and innovative approaches will be employed to implement and continuously improve sustainability outcomes. Evidence-based and innovative research for sustainability will be complemented by monitoring and analysing best practice.
- **Global perspective** - sustainability activities will reflect awareness that its influence reaches beyond the confines of its own organisation and current generation.
- **Precautionary principle** - the lack of full understanding will not be used to justify postponing measures to prevent degradation where there is any risk of irreversible environmental or social damage.
- **Student-focussed** - the University will ensure that graduates are equipped and motivated to contribute to sustainable futures.

By involving external stakeholders responsible for transport and land-use planning, public transport and infrastructure delivery in the communities in which we operate, the University is also looking to work collaboratively and link to other relevant local and state policies, plans and programs seeking to improve sustainable transport outcomes. Some of these are outlined in Section 2.3.

Box 1 outlines the process adopted for the development of this strategy.

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<sup>8</sup> University of Tasmania's Open to Talent: Strategic Plan 2012-Onwards  
[http://www.utas.edu.au/\\_data/assets/pdf\\_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF](http://www.utas.edu.au/_data/assets/pdf_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF)

<sup>9</sup> University of Tasmania Sustainable Built Environment Designs Policy  
[http://www.utas.edu.au/\\_data/assets/pdf\\_file/0006/39048/Sustainable-Built-Environmental-Designs-Policy.pdf](http://www.utas.edu.au/_data/assets/pdf_file/0006/39048/Sustainable-Built-Environmental-Designs-Policy.pdf)

<sup>10</sup> University of Tasmania Sustainability Policy 2015 <http://www.utas.edu.au/sustainability/policies>

## BOX 1

### The Sustainable Transport Strategy 2017-2021 Development Process

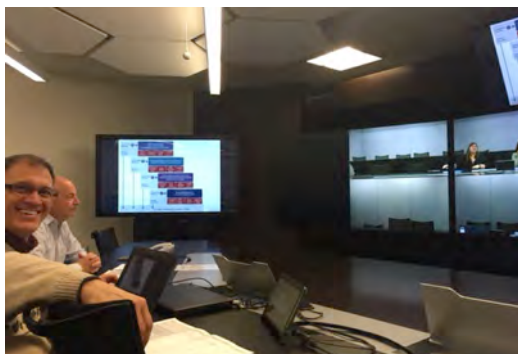
The process started with a scoping review of achievements associated with the implementation of the 2012-2016 STS and the current and emerging planning context for the University. Data from the 2013 and 2015 UTAS Travel Behaviour Surveys and other transport user data sources helped determine progress and areas of opportunity and weakness. The project team then sought comprehensive input from university staff, students and external stakeholders, including bus service providers, state and local government agencies, transport user-group organisations, and other organisations with complementary agendas.



April-May 2016	April-June 2016	July-Aug 2016	Sept-Dec 2016	Early 2017
<ul style="list-style-type: none"> <li>• 2012-16 strategy review</li> <li>• How is UTAs changing?</li> <li>• Continuing &amp; emerging issues.</li> <li>• Other university best practices.</li> <li>• Other Tasmanian transport policies, plans, initiatives &amp; opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of issues, needs, opportunities, barriers</li> <li>• Student &amp; staff online feedback (750 responses)</li> <li>• X4 internal stakeholder workshops</li> <li>• X1 external stakeholder workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Draft strategy development</li> <li>• Action planning</li> </ul>	<ul style="list-style-type: none"> <li>• Internal review &amp; feedback</li> <li>• External stakeholder feedback</li> <li>• Strategy finalisation</li> </ul>	<ul style="list-style-type: none"> <li>• Strategy finalisation &amp; adoption</li> </ul>

### Consultation

Some 750 staff and students provided online feedback on UTAS sustainable transport achievements since 2012, and issues and ideas for the 2017-2021 STS. Feedback was received from those attending or working at all UTAS major campuses and facilities in Tasmania and Sydney through April 2016. In addition to online feedback, a further five consultation workshops were held in which over 30 internal staff members, student representatives, and external stakeholders participated. Participation involved physical attendance and virtual attendance via the University’s immersive studio facilities to maximise capacity for participation by stakeholders across Tasmania and interstate, and reduce the need for travel. These forums allowed sharing of the online feedback from staff and students, identification of further issues, and opportunities for continual improvement in sustainable transport for the University and its communities.



UTAS staff consulting with Hobart, Launceston, Cradle Coast and Rozelle (Sydney) staff and student representatives via an immersive studio at Sandy Bay campus allowing collaborative engagement but reducing the need for inter-regional travel.

## 2 THE TRANSPORT PLANNING CONTEXT

The travel demand generated by university operations and the sustainable transport opportunities and constraints presented are dependent on local and global factors. Locally, factors include the location of campuses, university activities, student and staff population characteristics, local transport infrastructure, availability and quality of public transport services, urban amenity, and travel behaviour cultures.

Globally, technological innovation and emerging lifestyle behaviours among consumers are changing traditional models of travel behaviour and transport consumption. Rapid advances in communication technologies and the emergence of a highly connected society<sup>11</sup>, real time information, sharing<sup>12</sup> and circular<sup>13</sup> economies, developments in electric vehicle technology, and autonomous driver technology all present opportunities for new ways of accessing and using transport. Both these local and global circumstances present opportunities for UTAS to work collaboratively with other agencies (such as local government, state transport planning agencies, public transport service providers, and transport user groups) and local communities to deliver improved transport outcomes that have organisational and community co-benefits.

### 2.1 University campuses and facilities

With campuses and facilities located in three different regions of Tasmania (South, North, Cradle Coast in the North West), as well as a small campus in Sydney's inner west at Rozelle and operations in Darlinghurst, UTAS has a diverse and challenging transport and facilities planning and management profile. Within Tasmania, there are three main campus hubs in Hobart, Launceston and Burnie and a number of smaller campuses and facilities within these cities (see Box 2 for locations).

Managing and planning for the transport needs of UTAS is a multi-faceted challenge. As well as its multiple campus and facility locations, the University has a diverse community of students, staff and visitors, and numerous services and activities occurring at different sites at different times throughout the year. This strategy is particularly cognisant of the following planning context and influences on travel demand and travel behaviour:

- Different campus sizes, facilities, parking supply and constraints;
- Different regional and city settings including variable access to, and quality of, transport infrastructure and services;
- Life-stage influences on travel demand and mode choice;
- Different gender profiles by campus impacting on transport mode preferences;
- A growing and changing student base:
  - Local and international students with varied travel behaviour cultures, transport knowledge and needs; and
  - On-campus and online students, and full-time and part-time students attending campuses at different times.

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<sup>11</sup> Australia smartphone ownership is around 80% and higher for 18-24 year olds. Australians are also App savvy and tend to be early adopters of new technology. (Deloitte Mobile Consumer Survey 2015 <http://landing.deloitte.com.au/rs/761-IBL-328/images/deloitte-au-tmt-mobile-consumer-survey-2015-291015.pdf>)

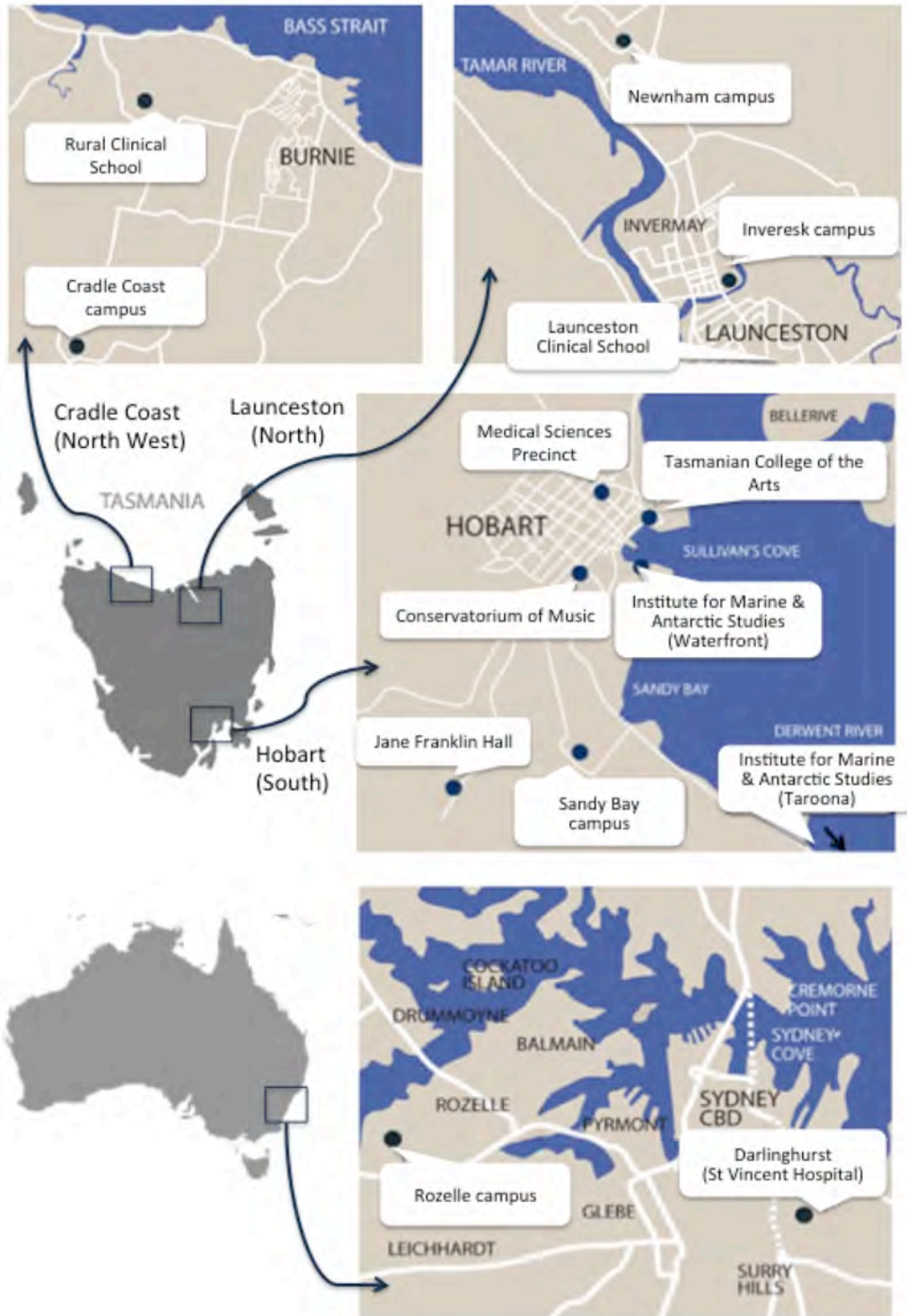
<sup>12</sup> A sharing economy has a range of meanings but here we mean peer-to-peer based sharing of goods and services. Transport examples include city car- and bike-share schemes where individuals rent the use of a car or bike for short periods of time instead of owning.

<sup>13</sup> The Ellen Macarthur Foundation defines a circular economy as 'one that is restorative and regenerative by design, and which aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles'. (<https://www.ellenmacarthurfoundation.org/circular-economy>)

## BOX 2

### Campus locations

The University of Tasmania has campuses and facilities across Tasmania and inner Sydney



## 2.2 University trip generation

Between 2013 and 2016, UTAS student enrolments increased by 51% with approximately 30,000 students enrolled across all campuses in 2016<sup>14</sup>. The majority of this increase, however, comprises students enrolled in external (online) capacities, hence on-campus student numbers were largely stable overall during this period<sup>15</sup>. The largest campuses are in Sandy Bay (Hobart), and Newnham (Launceston) but there are an increasing number of students in smaller facilities as the University develops into the Hobart, Launceston, and Burnie city centres. This is likely to increase in the future, with continued expansion programs in these city centres.

The University is also a significant employer with over 6000 employees in 2016 if fixed-term, ongoing, and casual staff are counted<sup>16</sup>. The University’s facilities and associated activities generate a range of trips and transport infrastructure demands beyond those just focused on the movement of students

### BOX 3 Multiple trip types

- To - from work and study (commute)
- Mixed online/on campus study (irregular trips)
- Intra-urban business trips (staff)
- Visitor trips
- Inter-region/inter-campus (student and staff)
- Ground based field work/study
- Domestic and international air travel

### Sustainable options by trip type and opportunity

bus/coach, carpool, virtual transport

Inter-region or remote

Active inner zone 0–2.5 km

Urban zone 2.5–10 km

Outer urban zone

Walk or or cycle OR bus, motor scooter/bike

cycle, bus, motor scooter/bike

bus or carpool

The 2012-2016 Strategy analysed the residential origin of staff and students and recommended transport choice zones according to transport opportunity and trip purpose. For instance the active zone (up to 2.5km from inner city campuses) where many students and staff reside is a short trip zone where there is greatest opportunity for walking, cycling and bus transport. At the other end of the spectrum are inter regional trips. Here options to use more sustainable modes are more limited and car use is likely to be greatest. Strategies in this case might include the use of virtual transport (communication technologies) to reduce the need for travel in the first instance, carpooling, or use of inter-regional coach services where available.

<sup>14</sup> UTAS enrolment data Semester 1 2016. End of year 2016 data suggests student enrolments for 2016 were 33,000 (or 20,001 full time equivalent enrolments).

<sup>15</sup> 83% of all student enrolments in 2013 were on campus in some capacity, while this has reduced to 55% due to the growth in external enrolments (UTAS enrolment data Semester 1 2013, 2016)

<sup>16</sup> UTAS Human Resources database

and staff to and from study or work. Box 3 outlines the full range of trip types generated by university activities, including trips to and from home to study and work, local intra-urban staff business trips, visitor trips, and inter-campus trips that require longer inter-regional land-based travel.

For some trips, such as journey to and from work and study, the University has collected data to inform transport planning; for other trip types, however, there are growing uncertainties and therefore challenges for planning. For example, changing technology allows the offering of blended learning opportunities for students. This can present both benefits and challenges to the University. It can reduce travel demand and assist remote student access to the University on one hand, but can also reduce travel demand predictability due to the irregularity of class attendance on the other.

Importantly different transport user groups and the diversity in travel demand require a package of considered responses; while opportunities and constraints for promoting sustainable practice needs to also acknowledge transport advantage and disadvantage associated with place-based contexts (explained in Box 3).

## 2.3 Integration with other Tasmanian plans

The strategy has been developed in consultation with key external stakeholders, a number of which have their own strategic plans and planning processes. The City of Hobart (CoH) and City of Launceston (CoL) both have sustainable transport plans. The CoH is currently in the process of preparing a new transport strategy. The CoL is (at the time of writing) preparing a central city parking strategy which may have relevance to UTAS operations. The Tasmanian Government also has transport infrastructure and passenger transport plans as well as a Climate Action Plan<sup>17</sup> (in draft form at time of writing). The Climate Action Plan has specific aims and objectives that revolve around reducing the carbon footprint of Tasmanian travel practices. University representatives have participated in stakeholder consultation forums through the process of developing this action plan. This allows cross-fertilisation of ideas and helps to align objectives so all are working collaboratively.

Other important external stakeholder processes and plans that UTAS representatives will seek to engage with that are relevant to this strategy and its implementation include:

- Metro Tasmania's bus network review (north)
- The statewide public bus contract review (2018) which provides an opportunity to improve network co-ordination and service improvement
- Tasmanian regional and capital city strategic planning
- Bicycle infrastructure and safety planning
- State Government planning, such as the Transport Access Strategy development

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<sup>17</sup> Draft Climate Action Plan [http://www.dpac.tas.gov.au/divisions/climatechange/Climate\\_Change\\_Priorities/about\\_us](http://www.dpac.tas.gov.au/divisions/climatechange/Climate_Change_Priorities/about_us)

### 3 ACHIEVEMENTS AND PROGRESS SINCE 2012

The inaugural 2012-2016 STS, adopted by the University, has achieved much. It has: set UTAS on a pathway of continual improvement; engaged students, staff, community members and other agencies in its implementation in a collaborative spirit; led innovative research and teaching projects; received acknowledgement and accolades at the state, national and international level, improving the University's standing in sustainability commitment; and, most importantly, delivered sustainable outcomes through social and environmental improvements.

#### BOX 4

#### Examples of sustainable transport improvements and projects



1, 2, 3 Upgrading of bicycle facilities in the Medical Science Precinct (1), and Sandy Bay campus (2, 3) included design of secure new and retrofitted full-featured end-of-trip cycle facilities with electric bike charging points, repair and water stations. The Sandy Bay bike hub was designed by UTAS architecture students.

4 Upgrade and installation of new UTAS-branded bus shelters.

5 Promotion of the high frequency 'Turn Up and Go' bus service between the Newnham and Inveresk campuses and the Launceston CBD. A partnership between UTAS and Metro Tasmania.

6 UTAS sustainable travel behavior choice promotional campaign.

7 UTAS has worked with Metro Tasmania to expand the high frequency Unibus (Sandy Bay to Hobart city) to a high frequency through service reaching the far north and eastern suburbs. This bus is route 501 Sandy Bay Campus to Glenorchy, reducing the need to change buses in the city for students and staff.

8 One of the University's electric fleet vehicles.

9 Student accommodation services' free shuttle bus service serving Sandy Bay/Mt Nelson.



### 3.1 Summary of UTAS sustainable transport improvement projects

There have been a number of improvements to the University's transport options brought about by changes to transport infrastructure, bus services, the location of some key facilities, awareness and behaviour change campaigns, and academic projects. Examples are provided in Box 4 and include both on-campus initiatives and those involving partnerships with other agencies.

In summary, improvements include (but are not limited to):

- Upgrading of virtual transport facilities (video and internet-based conferencing facilities);
- Changes in parking and carpool parking supply and pricing;
- Relocation and expansion of some major facilities in the Hobart CBD (specifically, the Institute for Marine and Antarctic Studies (IMAS) on the Hobart waterfront, and expansion of the Medical Sciences Precinct and Domain facilities);
- Upgrading of active transport facilities, such as the installation of new or retrofitted full-featured end-of-trip cycle facilities (e.g. bike hubs with electric bike charging points, repair and water stations) in new facilities and key entry points on main campuses;
- Improvements to way-finding signage;
- Installation of new and upgraded bus stop shelters at all main campuses, including signage improvements;
- Implementation of a high frequency (15 min) 'Turn Up and Go' bus service between the Newnham and Inveresk campuses and the Launceston CBD, and expansion of the Unibus Sandy Bay to Hobart city service to a 'Turn Up and Go' through service reaching to the far north and eastern suburbs;
- Introduction of hybrid and electric vehicles into the University vehicle fleet; and
- Awareness-raising and sustainable transport choices promotional campaigns, and promotional and educational tools for informing those accessing university campuses about safe bike routes and behaviour choices, such as through the 'Decide your Ride'<sup>18</sup> initiative.

### 3.2 Integrating teaching, learning and academic research

The *Sustainability Integration Program for Students*<sup>19</sup> (SIPS) provides opportunities for the University's infrastructure and operational sustainability activities to enhance the academic program with an active learning laboratory in sustainability. SIPS projects have involved over 1000 students from a number of schools and institutes, with academic involvement mostly through the Education for Sustainability Community of Practice (EFS CoP). Significant projects through 2012-2016 included:

- The *UTAS Travel Behaviour Survey* 2013 and 2015 through which over 4000 UTAS staff and students across all campuses and facilities were asked about their travel behaviour at a set time every two years. The survey was designed and rolled out initially as a Master of Environmental Planning research project in the School of Land and Food and has developed into an ongoing research program. The survey is the largest non-government travel behaviour dataset in Tasmania and provides key performance indicators for UTAS and external stakeholders.

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<sup>18</sup> Decide your Ride is a series of bicycling videos for those interested but unsure about bicycling to and between Sandy Bay and Hobart CBD campuses and between Newnham and Inveresk campuses. The videos and narration show safe introductory routes and provide safe riding tips. The idea came from UTAS PhD research. More information available at <http://www.utas.edu.au/commercial-services-development/sustainability/transport/decide-your-ride>

<sup>19</sup> For more about SIPS (previously AOSIP) see <http://www.utas.edu.au/sustainability>

- Students from the School of Engineering and ICT, and from the School of Land and Food, have participated in transport data collection and analysis through periodic pedestrian, bike and motorcycle movement counts and reporting.
- Students from the School of Architecture and Design regularly participate in the design and construction of bicycle end-of-trip facilities. In 2011-12, through the Launceston Assistance and Research Centre, students were given a brief to design a bike hub for installation on the Sandy Bay campus. The students worked through the process from concept design through to manufacture. The bike hub project includes a photovoltaic system, electric bike recharging stations, a water station, and a fully equipped bike repair station. The bike hub was considered innovative enough to attract State Government cycling infrastructure grant funds and was formally opened by the Minister for Sustainable Transport and the Vice-Chancellor. A second bike hub was developed for the Inveresk campus in 2012-13 using the same student-involved process, providing the same innovative elements and also attracted state and local government support. A third bike hub was developed in 2015-16 at the Australian Maritime College's accommodation precinct.

### 3.3 Sustainable transport and travel behaviour performance

The data obtained from both the 2013 and 2015 UTAS Travel Behaviour Survey (TBS) is important in that it provides both baseline and comparative information from which to monitor and communicate change and progress in transport sustainability over time. It is intended that the survey will be rolled out biennially as a longitudinal survey to allow monitoring and evaluation over time. The following are some of the key findings considered important for future university transport planning. More details in the TBS findings can be found in the *Summary of Findings* report available on the UTAS website<sup>20</sup>.

#### 3.3.1 Key messages from the UTAS Travel Behaviour Survey

How staff and students make the journey to and from work and study varies considerably according to life-stage characteristics, gender, residential location relative to campus location, transport infrastructure and available public transport services. Not all trips are by a single mode: more than one in ten trips to and from UTAS by staff and students are multi-modal and may include as many as three modes. The following present some of the key findings from the comparative analysis of the 2013 and 2015 UTAS TBS that have implications for how the University and the State may plan for more sustainable transport outcomes. For New South Wales facilities, the baseline has been established in the 2015 TBS, with the planned 2017 TBS to provide indications of changes and progress.

#### **Regional differences and challenges**

The TBS 2013 and 2015 data reveal marked differences in sustainable modal share across the three Tasmanian regions in which UTAS has campuses, specifically:

- Active transport (walk and cycle) is greatest among staff based in the South, with one in 4.5 in 2015 using active modes compared to nearly one in 7 and one in 14 in the North and North West respectively.
- Approximately one in three students in 2015 attending campuses/facilities in Tasmania's South and North use active transport as their primary mode of travel. Active transport use is much lower among students in the North West (one in 12.5).

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<sup>20</sup> UTAS 2015 Travel Behaviour Survey summary of findings <http://www.utas.edu.au/commercial-services-development/sustainability/transport/utas-travel-surveys>

- Students attending Tasmanian campuses and/or facilities in the South are twice as likely as those in the North, and three times more likely than those in the North West, to use a bus as their primary mode of travel according to the 2015 TBS.
- There has been a growth in bus use across all regions between 2013 and 2015, with particular improvements in the South where 18% of students in 2015 used the bus as their main mode of transport compared to 14% in 2013.
- At the Rozelle Sydney campus, some 26% of students use public transport (bus and/or train/light rail), reflecting the overall higher public transport usage by the Sydney population compared to Tasmanian cities.

Regional differences are further defined by the location and form of campuses. Central UTAS campus/facility locations near or within a city CBD appear to have an influence on sustainable mode choice, with Hobart CBD facilities, Sandy Bay and Inveresk campuses performing most strongly for student sustainable modes. The Cradle Coast campus has a significantly lower proportion of students and staff using sustainable modes (bus, cycle, walk) compared to all other major sites.

Factors facilitating more sustainable choices tend to include:

- The residential location of students and staff relative to campuses/facilities. Those residing near to and working within the inner urban suburbs are able to undertake shorter trips to work/study in Hobart and Launceston, partake in active modes and make use of good public transport services<sup>21</sup>;
- Good access to public transport in central city locations;
- Accessibility to active transport infrastructure, including bike lanes and end-of-trip facilities; and
- Little to no free on-campus parking.

On the other hand, students and staff based at the Burnie Cradle Coast campus are more dispersed, have more limited access to public transport, have to negotiate very hilly terrain, and have free campus parking available. These and, as discussed later, a higher proportion of female students and staff at the Cradle Coast campus, are likely contributing factors to high levels of car use<sup>22</sup>. Cradle Coast campus students are more likely to use virtual travel modes than other campuses, but have similar levels of carbon reducing vehicle use (multiple-passenger/carpooling) as most other campuses. Single-occupant vehicle use by staff at the Cradle Coast campus in Burnie is particularly dominant, with nine in every 10 being single-occupant vehicle users, the highest share recorded by either staff or students across UTAS campuses. In this region there is an obvious need to consider new strategies for addressing what appears to be a dependence on car use.

One regularly mentioned solution for students and staff living outside urban settlements, or in areas poorly serviced by public transport, is the promotion of carpooling. There are mixed observations on carpooling in Australian cities. In Hobart, a very small rise in carpooling was observed between 2001 and 2006, contrary to Australian trends<sup>23</sup>. At UTAS, a marked reduction in carpooling behaviour was observed for the Cradle Coast university community between 2013 and 2015 (down 5% if we consider the difference between the decline in the survey responses 'drove with multi occupants' and the increase in 'car passenger'). Nationally, the trend has been a continuous fall in car passenger trips for

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<sup>21</sup> Mapping outlined in the *UTAS Sustainable Transport Strategy 2012-2016* shows a high density of students and staff living within a 5km radius of major campuses in Launceston and Hobart, see p 23-35.  
[UTAS Sustainable Transport Strategy 2012-2016](#)

<sup>22</sup> Evidence is presented in the more detailed *UTAS Sustainable Transport Strategy 2012-2016*

<sup>23</sup> Mees, P., O'Connell, G., & Stone, J., 2008. Travel to Work in Australian Capital Cities 1976-2006. *Urban Policy & Research*, 26(3): 363-378.

travel to work specifically<sup>24</sup>, reflecting the generally poor track record of carpooling success in Australia. Nevertheless, in areas where public transport options are limited, improvements in information technology (specifically mobile apps) and the emergence of a sharing economy (including Uber-like schemes) may work to enhance the attractiveness and access to carpooling options along with priority carpool car parking incentives.

It was assumed in the UTAS STS 2012-2016 that the Cradle Coast campus would be particularly suited to carpooling-enhancing strategies, given its more limited public transport options. The University will consequently need to engage with its Cradle Coast community further and collaborate with other agencies responsible for transport improvements and planning in the region to conceive of more innovative solutions.

### **Evidence of transport disadvantage**

The above observation points to a range of factors facilitating more sustainable travel choices and evidence that there is both transport advantage and disadvantage apparent in Tasmania presenting social equity concerns. Transport disadvantage is the result of a range of intersecting factors including poor public transport infrastructure, a higher proportion of low-income households and the need to travel longer distances in order to get to places of employment, education, services and activities<sup>25</sup>. Areas that are transport disadvantaged often present with poor outcomes in relation to youth unemployment, educational attainment, and creation of social exclusion challenges<sup>26</sup>. Such is the case in Tasmania's North West/Cradle Coast region in particular. Through establishment of the Peter Underwood Centre for Educational Attainment<sup>27</sup> and other regional development projects, the University is working collaboratively with the State Government and various other stakeholders to address these issues. As a consequence, addressing transport disadvantage forms a wider agenda for Tasmania and enhances the importance of this strategy.

### **City centre campuses and active transport**

Active transport (walk and cycle) share varies considerably across regions, facilities and gender; and between staff and student respondents (for example, about one in three UTAS student trips in Tasmania are by active transport modes compared to about one in five staff trips). Those facilities recording the highest active transport share are within close proximity to a CBD where there is also the highest density of student and staff residing. These facilities also have relatively greater active transport infrastructure provisions both on-site and in the surrounding environment. An example of this is the new IMAS facility on the Hobart waterfront (IMAS Waterfront), where more than a third of staff walk or cycle and almost two thirds of students walk or cycle to and from work/study. IMAS Waterfront has limited parking as well as modern end-of-trip facilities, such as change rooms, showers, bike storage and maintenance facilities. However, there is direct feedback that the provision of showers and lockers does not meet current, let alone future, demand.

There has been particular interest in the performance of newer central facilities, such as IMAS waterfront and the Medical Science Precinct in Hobart, relative to other suburban campuses in encouraging non-car based journeys, particularly active transport, to and from work and study. While facilities located in the Hobart CBD have the highest active transport modes, the UTAS TBS 2015 and qualitative focus group discussions with staff at the Medical Science Precinct and IMAS Waterfront in 2015 reveal that cycling is still more a male endeavour.

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<sup>24</sup> Mees, P., O'Connell, G., & Stone, J., 2008. Travel to Work in Australian Capital Cities 1976-2006. *Urban Policy & Research*, 26(3): 363-378.

<sup>25</sup> Australian Institute of Family Studies: The relationship between transport and disadvantage in Australia <https://aifs.gov.au/cfca/publications/relationship-between-transport-and-disadvantage-austr>

<sup>26</sup> There is a long history and substantial literature on this topic, e.g. see: Lucas, K. 2012. Transport and social exclusion: Where are we now? *Transport Policy*, 20:105–113. <http://dx.doi.org/10.1016/j.tranpol.2012.01.013>

<sup>27</sup> The Peter Underwood Centre for Educational Attainment <http://www.utas.edu.au/underwood-centre>

### **Gender influences on UTAS travel behaviour**

There are clear variances in UTAS travel behaviour and transport choice according to gender<sup>28</sup>. Specifically, there is more difference between male and female staff than between male and female students. Women tend to drive to work or study a little more than men across most campuses, except at Inveresk and at Hobart CBD facilities where there is no apparent gender effect on staff behaviour. The latter is likely to be due to the restrictive parking opportunities (availability and cost) in Hobart CBD locations relative to other campuses where parking is provided. The higher ratio of female to male car users is not surprising given what we know of gender and car use. Life-stage and gender are cited in the literature as being particularly important in determining differences in travel behaviour between households with children and without, and between men and women more generally<sup>29,30</sup>. Women and men tend to increase their car use when they have children, and women are more likely to work part-time and are known to juggle more daily tasks in addition to work than men in general, which constrains their choice of transport. This is not to say that many women do not wish they had other choices for some of their trips or that some men are not constrained by similar commitments.

Similarly, women typically cycle less than men in urban Australia<sup>31</sup>. This is in stark contrast to cycle-friendly cities in Europe, such as Copenhagen or Amsterdam, where female cycle trips outstrip male trips and there is a heavy focus on the provision of safe, dedicated and well-connected urban cycle infrastructure<sup>32</sup>. The male to female cycle ratio across the University in 2015 was 3:1, although for the Sandy Bay campus the ratio for staff was lower at 2:1. While Hobart CBD locations demonstrate the highest cycle mode shares, this does not translate to higher proportions of women cycling to the Hobart CBD. In fact, locations such as IMAS Waterfront have particularly high male to female cycling ratios, perhaps arising from the busy traffic zones through the CBD presenting cycle safety issues that may discourage women from riding.

The need for dedicated bike routes, separated bike lanes, and well-connected intra urban routes were frequent issues raised by male and female cyclists and 'potential cyclists' in the online feedback consultation process. Collaborative efforts with bike infrastructure planning agencies at the local and state level are required to address these. There are community-wide benefits to be had from attention to the needs of female cyclists in Tasmanian cities. The more female cyclists there are compared to men may indicate that available cycling infrastructure is conducive to a broader range of people accessing it.

### **3.3.2 Sustainability performance**

The figures in Box 5 and 6 show how the university community overall has progressed in terms of demonstrating more sustainable transport practices.

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<sup>28</sup> In the 2013 and 2015 UTAS TBS, gender options were simply 'Male' and 'Female'. In future surveys there will be an option to offer alternatives in line with developing best practice in survey design and social progression in gender diversity.

<sup>29</sup> Lyth-Gollner, A., & Dowling, R., 2002. Implications of Household Form, Gender & Parenting Cultures on Car Use & Urban Transport Policy: a Sydney Study, *25th Australasian Transport Research Forum Incorporating the BTRE Transport Policy Colloquium*, October 2-4, Canberra, ACT.

<sup>30</sup> Dowling, R., Gollner (Lyth), A., & O'Dwyer, B., 1999. A Gender perspective on urban car use: A qualitative case study, *Urban Policy & Research: An Australian & New Zealand Guide to Urban Affairs*, 17 (2) pp. 101-110.

<sup>31</sup> In Melbourne and Sydney, the male to female cycling ratio is approximately 4:1 and 5:1 respectively, see: Garrard, J., 2011. Bikes as transport: getting Australian women along for the ride, *The Conversation* (11 Aug 2011) <https://theconversation.com/bikes-as-transport-getting-australian-women-along-for-the-ride-2157>

<sup>32</sup> Baker, L., 2009. How to Get More Bicyclists on the Road, *Scientific American* (1 Oct 2009), <http://www.scientificamerican.com/article/getting-more-bicyclists-on-the-road/>

### **Shift to sustainable modes**

In Box 5 we can see that each Tasmanian<sup>33</sup> region in which the University has a presence has performed differently, although there are a few consistent trends. The first obvious improvement is the increase in bus use in each region. This has been especially so for students and for those working and studying at southern campuses. The potential for continual improvement in this area is positive with further bus timetable, routing and infrastructure improvements in both Launceston and Hobart continuing through 2015 and 2016 to provide more frequent and more direct bus services and access at UTAS Hobart and Launceston campuses. Note that the new 15-minute, high frequency bus service between Newnham and Inveresk campuses and the Launceston CBD had been in operation for 5 weeks when the 2015 TBS was conducted. Bus ridership numbers from Metro Tasmania also show an increase of 22% to 25% from 2014 patronage data<sup>34</sup>.

While we have seen some improvements in active modes (walking and cycling), the gains are variable depending on the region and the location of the campus, with campuses located in inner urban or CBD settings performing the best. Overall, however, we can see that when walking, cycling and bus modes are packaged together in a sustainable travel category, there is a positive story for the South and North regions.

### **Reducing fuel usage and greenhouse gas emissions from the University's vehicle fleet**

Further to travel behaviour and sustainable mode-choice shifts, the University has also made gains in the fuel efficiency of its vehicle fleet. Box 6 shows how the fleet has reduced its overall fuel use and greenhouse gas emissions over time. This is associated with the review of the University's own vehicle mix and the matching of vehicles to purpose. The fleet now includes an increasing number of low fuel consuming vehicles including hybrid and electric vehicles.

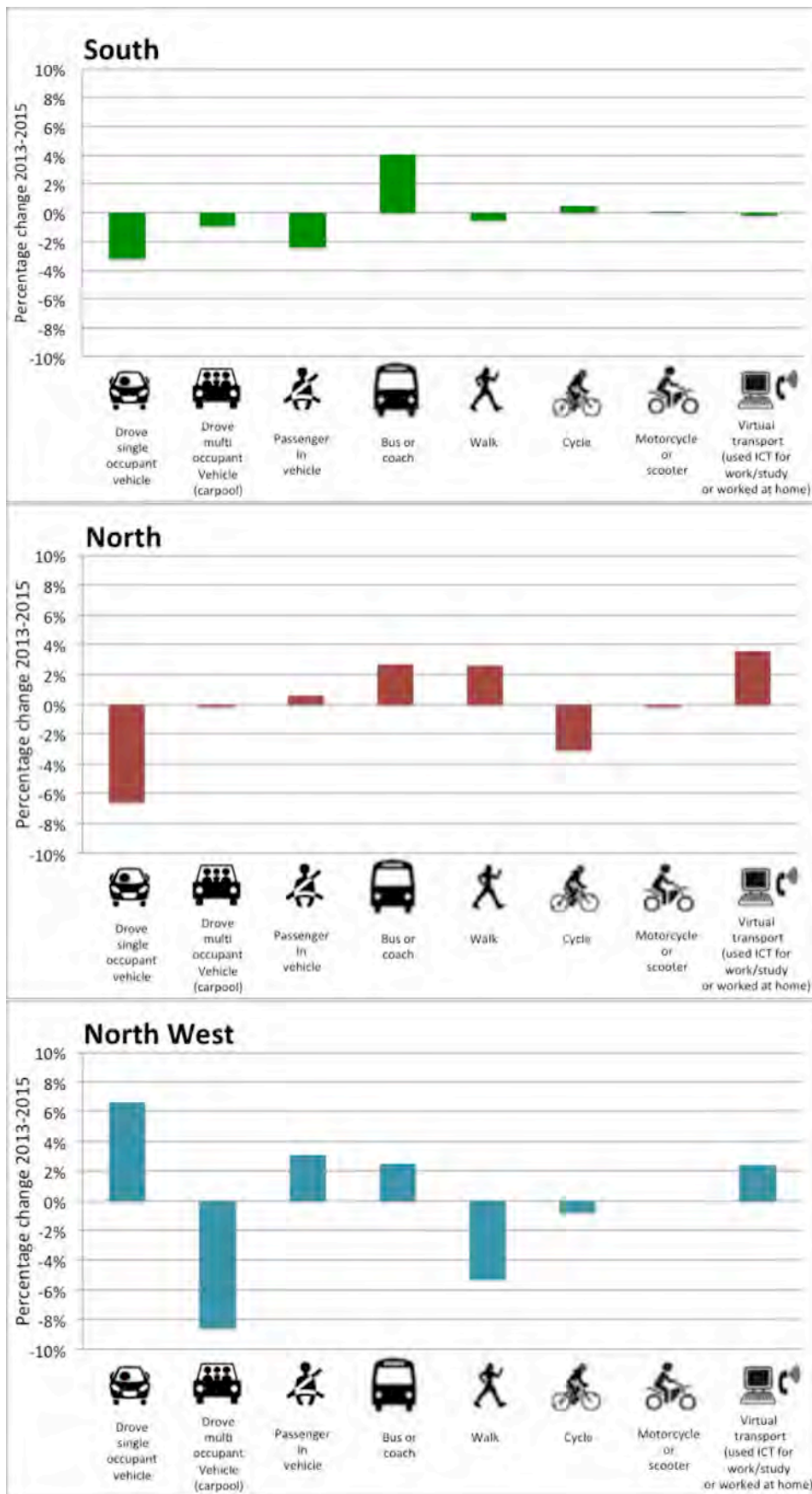
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<sup>33</sup> Sydney campuses are not included in the 2013-15 change figures as we only have 2015 baseline data for these campuses to work with.

<sup>34</sup> Pers. comm., Metro Tasmania, November 2015.

**BOX 5**

**UTAS Mode share change by percentage points 2013-2015 by region (students & staff)**



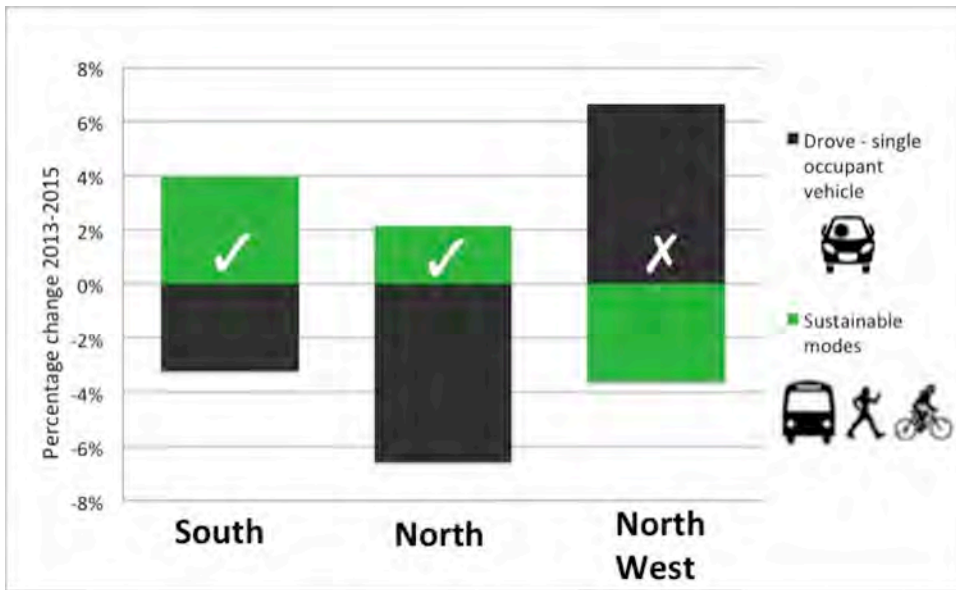
**All Hobart campuses & facilities** – bus use shows particular improvement and motor vehicle use is proportionately down

**All Launceston campuses & facilities** – bus use and walking shows improvement and single occupant motor vehicle use is noticeably down. The increased use of virtual transport (ICT) is also noticeable.

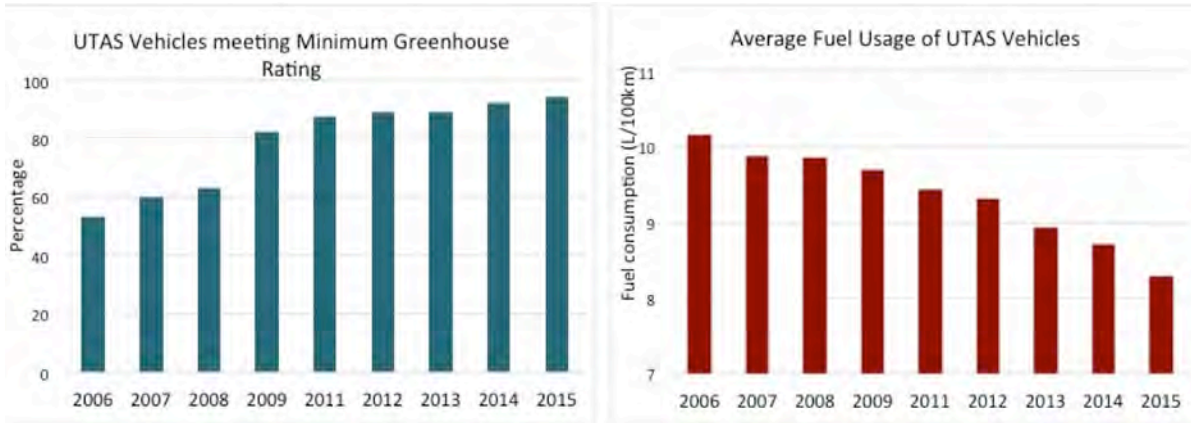
**Burnie campus and the Rural Clinical School** – bus use has improved, although single occupant vehicle use has noticeably increased and walking and cycling is down.

**BOX 6**

**Overall Performance – change by percentage points in single occupant vehicle and sustainable travel modes 2013-15 (all student and staff participants)**



**Reductions over time in fuel usage and greenhouse gas emissions – UTAS vehicle fleet**





## 4 EMERGING ISSUES AND OPPORTUNITIES BY REGION 2017-2021

Section three has provided some insights into the differences between regions and specific campuses in terms of travel behaviour and transport sustainability performance through the last planning period. The strategy also needs to consider development plans for university facilities for this next planning and delivery period, as well as anticipate other issues relevant to each region and place in which UTAS has operations. The following summarises facilities development and sustainable transport issues for each region and the campuses within them for the 2017-2021 period.

### 4.1 Tasmania – Southern region

The Southern Campuses Revitalisation and Activation Project (SCRAP) seeks to revitalise and activate UTAS campuses by consolidating the University's building footprint and creating dedicated precincts<sup>35</sup>. Based on these high-level objectives, and on the University's Master Plan for the Sandy Bay Campus, Commercial Services and Development (CSD) follows some key principles for improving the built environment. Those most relevant to this strategy include:

- Consolidate similar functions/activities into defined precincts to increase efficiency and improve collaboration between disparate parts of the organisation;
- Incorporate sustainability principles: sustainable procurement, energy and water use, dealing with waste to meet national targets as appropriate; and
- Improve the functionality, condition and utilisation of built space.

Connectivity between university precincts, especially those that have a strong relationship with each other, and consideration of how the development of precincts might impact on future travel demand and efficiencies are essential in ensuring the sustainability of future campus revitalisation and development programs. In the past strategy period we have seen the expansion and development of flagship facilities in the Hobart CBD, specifically the Medical Sciences Precinct (MSP), the IMAS Waterfront building, and the revitalised original university buildings at the Domain. These projects have brought a considerable number of UTAS employees and students into the CBD. There are clear transport benefits of being located in a CBD, particularly the benefits of improved public transport access, and amenity associated with being among the services and facilities on offer in a central environment (lunch venues, shops, medical services). In return, the University contributes to the vitality of the city, benefiting the local economy.







The evident benefits of a CBD location for the achievement of sustainable transport outcomes have been reported above. However, there are also travel demand challenges. Associated with the need to move between campuses and facilities (e.g. between Sandy Bay and IMAS or MSP) for meetings and classes, there are productivity and efficiency gains to be made for both the institution and individuals. The online feedback process and focus groups undertaken at MSP and IMAS have alerted the transport planning team to the challenges staff have in particular in moving between facilities, including the generation of extra trips associated with university business, the extra time required to travel to meetings, and the choice of mode given time, weather and university travel policy constraints. It is consequently important to keep in mind the opportunities and issues as further CBD facilities come online, including the Creative Industries and Performing Arts development next to the Theatre Royal and the Elizabeth Street student accommodation. Similarly, the University needs to continue to work with the City of Hobart and other relevant agencies to improve pedestrian and bicycle connectivity within the CBD and between the Sandy Bay campus and UTAS CBD facilities.

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<sup>35</sup> <http://www.utas.edu.au/commercial-services-development/building-works/completed-projects/utas-campus-revitalisation-program>

In the South, Metro Tasmania has recently implemented network and timetable changes following a review period. There have been clear service improvements beginning in 2016 between the Sandy Bay campus and the Hobart CBD with the frequent through services extending throughout the year, as well as the delivery of services from some outer suburban areas (e.g. Eastern Shore to Sandy Bay) through to the Sandy Bay campus when these previously terminated in the CBD requiring a change of bus. To complement these new bus services, consideration might also be given to trialling park-and-ride and implementing bus priority measures<sup>36</sup> at key transport hubs in the region, such as at Kingston or the Eastern Shore. This is an idea well supported by online feedback participants and would serve both those living on the fringes of the greater Hobart area and further afield. Park-and-ride should ideally be accompanied by bus priority measures and an inner city parking supply scheme that does not encourage parking in the CBD for long periods. These initiatives would require leadership from state and local government agencies.

**BOX 7**  
**UTAS Southern Region Recent & Future Developments**

**1, 2, 3** The Domain (1), IMAS Waterfront (2), Medical Science Precinct (3) have become significant UTAS landmarks in the CBD leading best practice in end-of-trip bicycle facilities and sustainable transport practices.

**4** Creating meeting hubs to facilitate efficient use of space and upgrading ICT facilities such as video-conferencing and immersive studios can help reduce travel demand and improve transport efficiency for students, staff and visitors.

**5** New student accommodation on Elizabeth St (artist's impression) will bring students into the CBD to live and study reducing the length of journeys and reducing the need for car use and car ownership.

**6** Expected to be completed by 2018, the Creative Industries and Performing Arts development (artist's impression) will adjoin the historic Theatre Royal. It will contribute to a greater UTAS CBD presence.

## 4.2 Tasmania – Northern region

Attracting more students into higher education and providing high quality, relevant and affordable university courses in modern, fit-for-purpose and accessible facilities is a high priority for UTAS. It is recognised that lifting educational attainment in Tasmania is key to a more skilled, productive and prosperous Tasmanian community. This is particularly relevant in the north and north west of the State where youth unemployment and low levels of educational attainment impact on regional sustainable

<sup>36</sup> Park-and-ride is a system where drivers leave their cars in a car park on the outskirts of a city and travel (ride) to the city centre (or major activity centre) on public transport. Park-and-ride might also involve 'bike-and-ride' where cyclists can securely store their bike at a storage point and then ride on public transport. Bus priority measures may include dedicated bus lanes in peak periods, and bus traffic light timing priority.

development capacity and social wellbeing.

A collaboration between the State Government, the City of Launceston (CoL), TasTAFE, and the Australian Government, concept plans have been developed for a UTAS Northern Expansion program in Launceston<sup>37</sup>. Two key sites have been identified as preferred locations for new university buildings. One of these is at Inveresk, adjacent to Aurora Stadium and existing UTAS facilities. The other is at Willis Street car park, adjacent to the National Automobile Museum of Tasmania and to be connected directly to Inveresk via a shared pedestrian/bicycle bridge. Both sites are central locations allowing for easier access by public transport and active modes, and consolidation of existing Inveresk operations. The State Government, CoL and University are also working on plans for the redevelopment of the remainder of the Newnham site. While the expansion program will continue beyond the life of the STS 2017-2021, it is crucial to integrate sustainable transport objectives and transport accessibility considerations into the early planning and design phases of this significant development to ensure maximum benefit is gained for both the university community and the greater Launceston community.

Also important is the forthcoming review of the Metro Tasmania northern bus network and services. UTAS will work with Metro Tasmania and CoL and others to identify public transport demand and options for improving services in the Greater Launceston area. While there have been specific improvements at Newnham and Inveresk to Launceston CBD bus services (accompanied by increased bus patronage and user satisfaction), comments from the online feedback process revealed considerable frustration with outer suburban bus services in Launceston. Encouraging public transport usage throughout the greater Launceston area and linking other urban centres to Launceston campuses will be an important focus for the STS 2017-2021. In conjunction with the review of bus services, consideration should be given to trialling park-and-ride at key transport hubs in the region and bus priority measures along high frequency corridors. These ideas were well supported by online feedback participants.

The Northern Campuses Revitalisation Project is aimed at improving the student and campus experience through consolidating activities, upgrading facilities and revitalising spaces and amenity at Launceston campuses and student accommodation<sup>38</sup>. Proposed projects may have transport and mobility implications as well as provide opportunities for improving transport amenity both on campus and between campuses and student accommodation and service facilities.

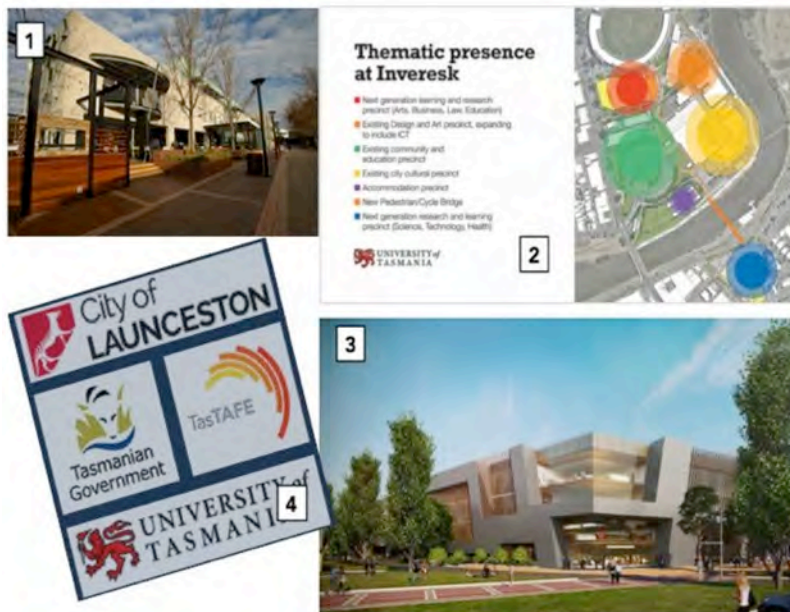
Ongoing improvement to cycling and pedestrian routes, their connectivity and safety will be important to delivering this strategy. This applies both on and off campuses. Addressing bus service improvement and active transport infrastructure requires UTAS to adopt collaborative approaches and engagement with the relevant agencies.

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<sup>37</sup> <http://www.utas.edu.au/northern-expansion/home>

<sup>38</sup> <http://www.utas.edu.au/commercial-services-development/building-works/completed-projects/utas-campus-revitalisation-program>

**BOX 8**  
**UTAS Northern Future Developments (Launceston)**



**1** There are on-campus pedestrian and bicycle safety issues to manage at Newnham campus, including improved lighting, bicycle storage and signage.

**2** Schematic depiction of concept plans for the northern UTAS campus expansion at Inveresk, Launceston.

**3** An artist's impression of a new building that might be proposed in an expanded Inveresk campus.

**4** The original partners associated with the UTAS Northern Expansion program.

### 4.3 Tasmania – Cradle Coast region

UTAS has joined with the State Government, the Burnie City Council, Cradle Coast Authority, and TasTAFE to sign a Memorandum of Understanding to discuss the expansion of the University campus in central Burnie<sup>39</sup>. The University has progressed plans for a modern, purpose-built campus at West Park in Burnie, which houses the prominent 'Makers Workshop' site. Incorporating community feedback, a Master Plan for the site for the next 10-15 years has been approved.

Consolidation of campus and university student accommodation in a more central location in Burnie is likely to improve sustainable transport outcomes in the long run. It will be easier to provide higher quality bus services to the Cradle Coast campus, while active transport options for those living locally are likely to be feasible for a greater proportion of student and staff studying and working in the new facilities. Along with the North West Coastal Pathway project and improved public transport access the West Park campus has the potential to become a major active transport hub. As with the Launceston expansion program, it will be very vital to integrate sustainable transport objectives, particularly accessibility considerations, into the planning, design and development phases.

In the meantime, there are things the University can do to improve the sustainability of travel practices at existing facilities. These include (but are not limited to) working with bus service providers to improve bus services to the Cradle Coast campus and Rural Clinical School; improve and promote bicycle routes and infrastructure; and consider ways of promoting and rewarding carpooling. Similar to the other regions, collaborative approaches and engagement with the relevant agencies will be essential.

<sup>39</sup> For more go to <http://www.utas.edu.au/cradle-coast-expansion>

## BOX 9

### UTAS Cradle Coast Development (Burnie)



**1, 2** Location of the planned Cradle Coast campus at West Park. The more central location should help to deliver more sustainable transport outcomes.

**3** The partners of the Burnie northern expansion program

**4** Recently completed West Park Student accommodation bringing students into central Burnie.

## 4.4 New South Wales – Sydney (Rozelle and Darlinghurst)

UTAS established a presence in New South Wales in 2006. Located in Rozelle and Darlinghurst, these campuses offer nursing and paramedic education in partnership with local hospitals and health services.

UTAS' Darlinghurst campus is located in Sydney's central suburbs and as a consequence is serviced regularly by a range of public transport. The Rozelle campus in Sydney's inner west suburbs is the larger of the two facilities. It is undergoing significant student growth with 682 students enrolled in 2016 compared to 467 in 2013<sup>40</sup>. Rozelle is serviced directly by bus services, and within walking distance light rail connects inner west suburbs with the Sydney CBD.

Transport planning in Greater Sydney is complex. As a large metropolitan region, students and staff travel from a myriad of locations and many spend a significant amount of time travelling (Box 10). The 30-minute commute is a transport planning aspiration frequently communicated in Sydney but in reality is often unachievable despite a comprehensive heavy rail and bus network.

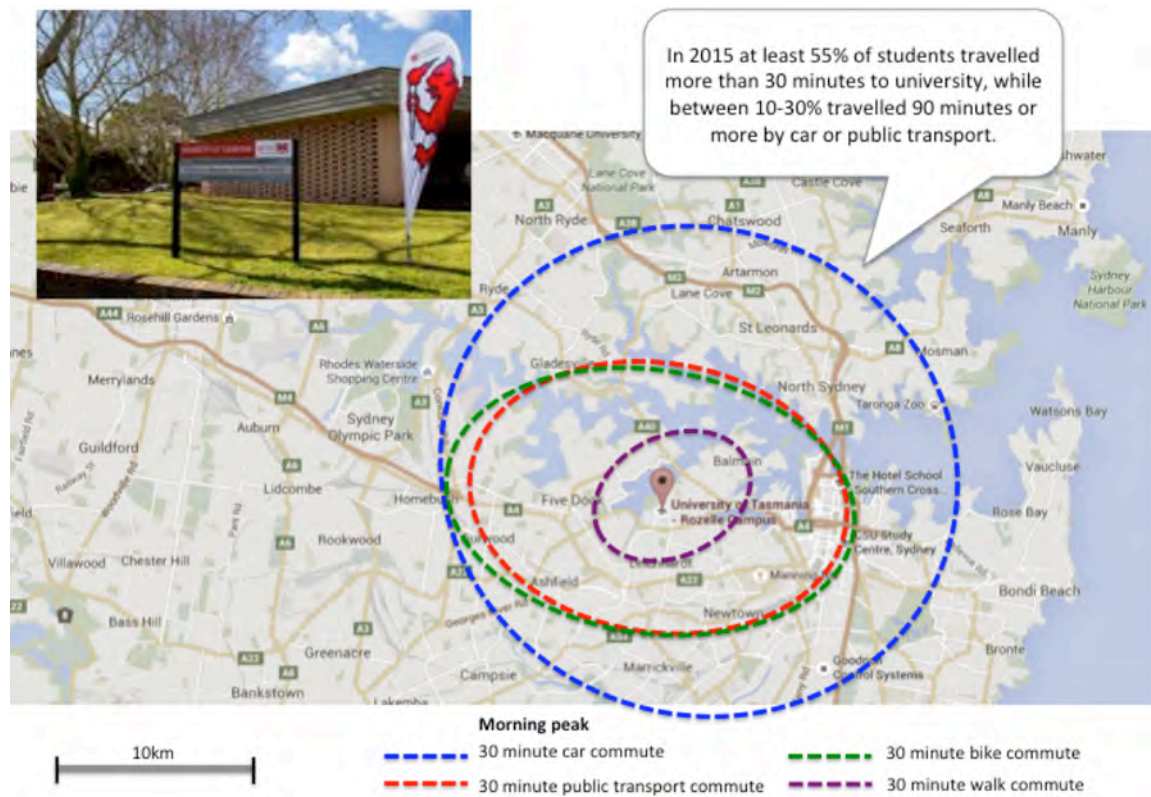
Box 10 depicts the likely limit of a 30-minute commute by different modes from the Rozelle campus. It shows that to travel no more than 30 minutes, staff and students would need to be living in high cost inner to mid suburbs. While Rozelle does have a range of public transport options, if students or staff need to travel outside the inner to middle suburbs to home on public transport, they will likely need to take more than one bus, or connect to heavy rail at CBD train stations. The need to make more than one public transport connection and time spent travelling consequently encourages car use and places pressure on local parking.

Consultation meetings and online feedback pointed to things that UTAS could do as a priority to encourage more sustainable transport practices. These include improving neighbourhood signage for pedestrians and cyclists wanting to access light rail stations; promoting available public transport services; improving the quality and quantity of end-of-trip cycle facilities, such as secure weather-protected bicycle parking and showers; considering more efficient practices in local business travel, such as carpooling, a car-share car space on or near campus, or the establishment of taxi procurement policies which preference the greenest taxi companies.

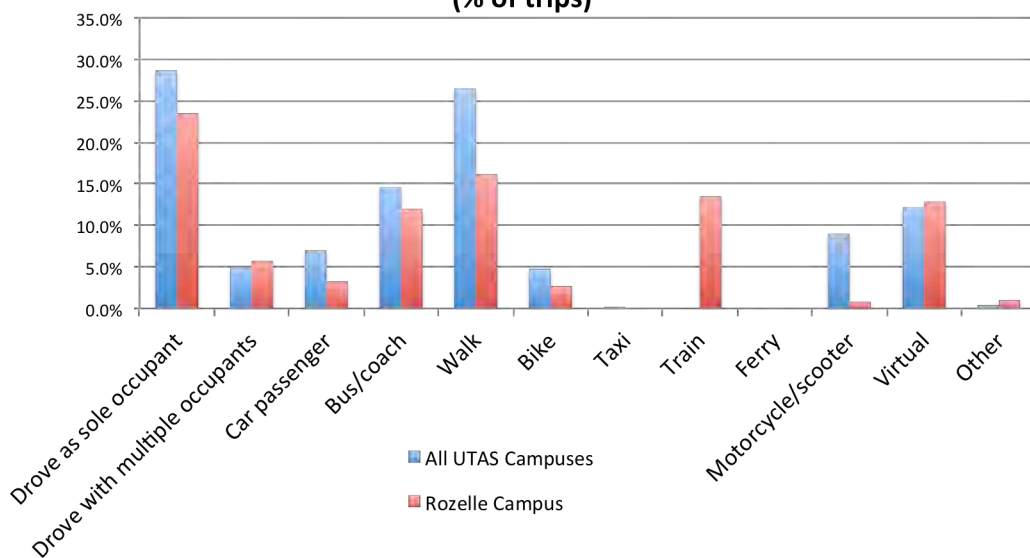
<sup>40</sup> UTAS Student enrolments Semester 1 2013 & 2016

**BOX 10**

**Rozelle Campus – 30-minute commute limits by mode and student mode of transport (2015)**



**Mode of transport used by students travelling to study 2015 (% of trips)**



## 4.5 Connecting students and staff across regions

Inter-regional travel is undertaken by both staff and students. There is regular movement between Hobart and Launceston (up and down the Midland Highway) and between the Cradle Coast, Launceston and the south.

Safety is a paramount issue for those travelling on Tasmanian roads, along with travel efficiency. There are coach services operated by Redline (Cradle Coast-Launceston-Hobart) and Tassielink (Devonport-Launceston-Hobart Express) although these services do not always match up with class or meeting times. It has not been financially viable to maintain a university subsidised Hobart-Launceston morning coach service as has been offered in the past. Nevertheless, inter-regional transport and safety is a statewide issue that presents opportunities for multi-agency (government, business and university) initiatives, as numerous inter-regional trips associated with Tasmanian government and private business are also made. Similarly, there is an opportunity for the impending statewide bus contracts review to consider this challenge in consultation with the University and other relevant agencies or businesses.

The demand for inter-regional travel for university staff and student business is being reduced as more sophisticated ICT technologies (such as video conferencing, immersive teaching studios, online learning tools, and smart mobile telecommunications) are taken up. This strategy's action plan outlines mechanisms for reducing unnecessary vehicle travel for university business, improving efficiency in travel, and reducing the impact of necessary university business travel.

## 4.6 Whole-of-institution issues and opportunities

There are a number of issues and opportunities that are relevant to the whole UTAS institution and not only specific to regions or certain campuses. These will involve the development or amendment of university-wide policies, processes and plans, including:

- Requirements for campus development plans to refer to this STS and, by doing so, consider travel demand and transport impact of development decisions, and embed sustainable transport or travel demand-reducing solutions in the planning and design process;
- Parking policy and plans that incorporate incentives for sustainable vehicle parking use (e.g. car-poolers, small or low emission vehicles, motorcycles/scooters, and electric vehicles) and/or disincentives for extensive single-occupant vehicle parking demand;
- Staff travel policy and decision-making processes (local land-based and air travel) that informs sustainable operational decision-making and efficiency around -
  - the need to travel for business trips,
  - the decision-making framework around how best to travel,
  - and the sustainable options readily available to staff (e.g. bus travel cards, UTAS hybrid or electric vehicles, green taxis, access to car-share schemes);
- Information and communications technology improvements, training, and promotion;
- Safe travel guidelines and user etiquette for staff riding their bicycles for local business trips;
- University bylaw impediments to active transport use (such as addressing the restriction of bicycles on footpaths so as to align with other Tasmanian bylaws or guidelines); and
- University-wide information and education programs.

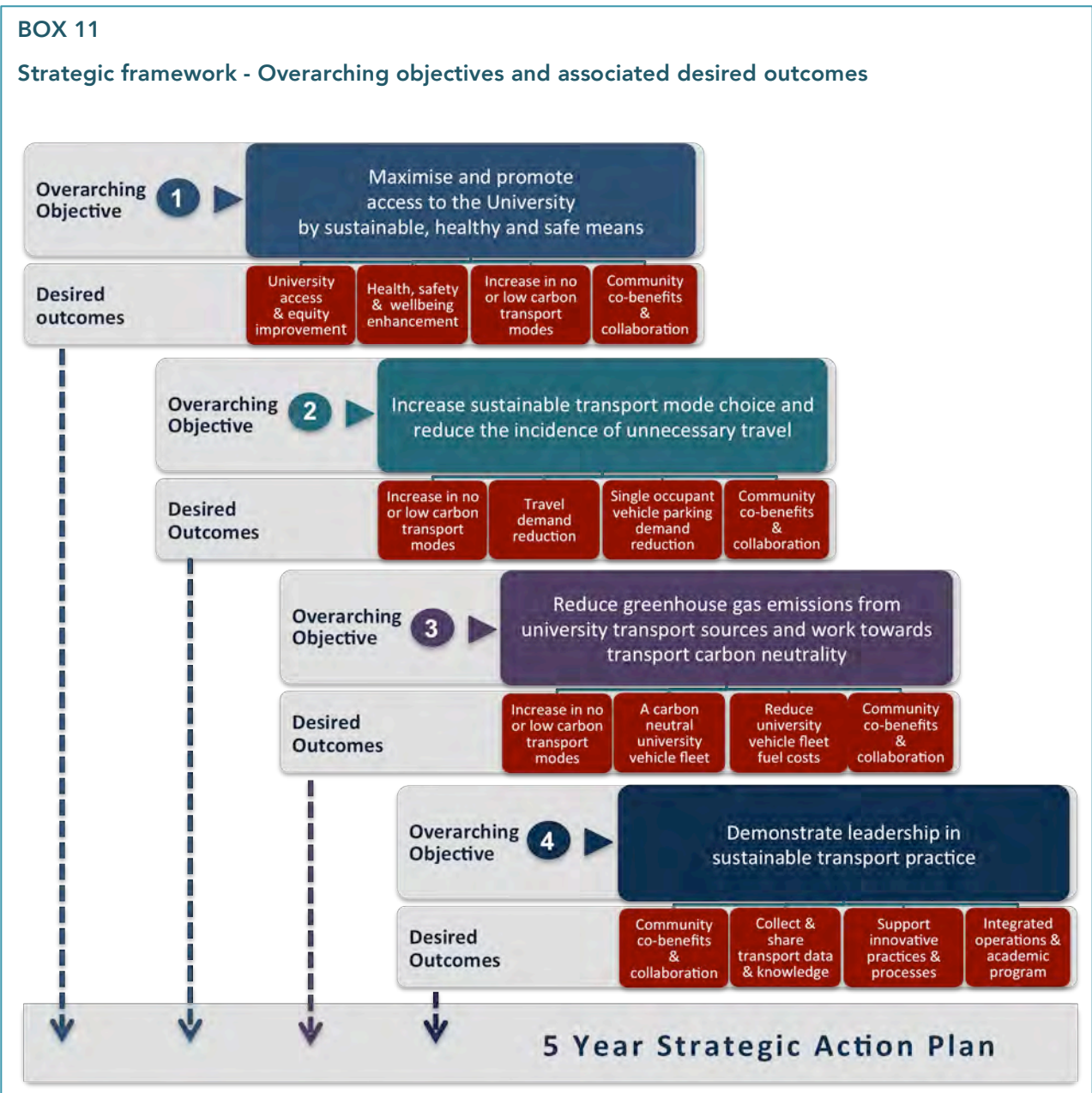
## 5 SUSTAINABLE TRANSPORT STRATEGIC ACTION PLAN 2017-2021

### 5.1 Purpose and objectives

This strategy’s purpose is to guide investments and actions that deliver more socially, economically and environmentally sustainable transport outcomes and travel behaviours into the future. It is guided by four improvement objectives for the University (Box 11). These build on the original three objectives guiding the 2012-2016 STS and the scoping of issues. Related to these overarching objectives are desired outcomes, which also help to focus strategic actions.

The objectives and desired outcomes incorporate three essential principles, primarily the need for:

1. An integrated whole-of-institution approach to sustainable transport planning and practice;
2. Multi-stakeholder collaboration recognising that multiple agencies are required to help deliver this strategy;
3. A strategy that delivers community co-benefits in addition to institutional benefits.





The following explains the intent of each objective.

**OBJECTIVE 1: Maximise and promote access to the University by sustainable, healthy and safe means**

Ensuring a good level of access to the educational and research services offered at the University and facilitating more sustainable transport options where feasible allow us to:

- Reduce inequities in access to higher education as far as possible through improvements in transport options, online and remote educational services;
- Reduce the vulnerability of the university community to fluctuating transport costs or fuel shocks by improving alternative transport options to single-occupant car use and increasing community resilience;
- Support the continued growth and development of the University by enhancing accessibility to campuses for students, staff and visitors;
- Facilitate safe, active transport options, in turn promoting healthy lifestyles and work/study places and lower-cost travel options;
- Reduce the growth in demand for on-campus and neighbourhood on-street parking, thereby reducing the significant cost of parking provision and reducing the impact of parking demand in neighbourhoods surrounding campuses to improve neighbourhood amenity and traffic safety; and
- Shrink the carbon footprint of the university community's travel.

**OBJECTIVE 2: Increase sustainable transport mode choice and reduce the incidence of unnecessary travel**

Increasing the proportion of people travelling via sustainable transport modes and minimising single occupant vehicle use where there are opportunities to facilitate and encourage alternatives will help:

- Reduce the growth in demand for on-campus and neighbourhood on-street parking, thereby reducing the significant cost of parking provision and reducing the impact of parking demand in neighbourhoods surrounding campuses;
- Reduce the costs of transport inefficiencies (time and financial) associated with university business travel and improve productivity;
- Shrink the carbon footprint as well as other environmental impacts of the university community's travel; and
- Improve neighbourhood and city amenity, and traffic safety.

**OBJECTIVE 3: Reduce greenhouse gas emissions from university transport sources and work towards transport carbon neutrality**

As well as positioning UTAS as a carbon responsible and sustainable higher education institution in the global educational market and within the nation and state economy, this objective focuses the University on:

- Meeting its regulatory compliance requirements associated with NGER;
- Meeting University energy consumption and GHG emission reduction targets;
- Meeting the aspirations of many staff and students to be part of an institution and community that is taking action to address climate change;
- Reducing the University's vehicle fleet costs through reduced consumption of transport fuel;

- Reducing the carbon footprint of goods and services procured by the University by considering GHG emissions associated with supply chains; and
- Addressing transport and work productivity inefficiencies through reducing travel demand generated by university business operations.

#### **OBJECTIVE 4: Demonstrate leadership in sustainable transport practice**

The University’s mission statement specifically states ‘The University will provide leadership within its community, thereby contributing to the cultural, economic and social development of Tasmania’<sup>41</sup>. The first UTAS STS 2012-2016 has demonstrated considerable leadership in developing sustainable transport agendas, delivering innovative solutions, working collaboratively within the community, leading an innovative teaching, learning and research program, and collecting and sharing valuable data that is informing transport planning throughout the State. As a consequence, the University is not only delivering for itself, but also the communities within which it operates and the State of Tasmania at large.

### **5.2 Strategic actions**

Appendix A outlines the Strategic Actions that have been proposed in consultation with internal and external stakeholders. Actions proposed have been developed keeping in mind that they need to be achievable, practicable (either by the University or in partnership with other agencies), and pertinent to the objectives outlined in the strategy.

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<sup>41</sup>Mission statement in the UTAS Open for Talent Strategic Plan  
[http://www.utas.edu.au/\\_\\_data/assets/pdf\\_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF](http://www.utas.edu.au/__data/assets/pdf_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF)

## 6 MONITORING, EVALUATION AND REPORTING

Monitoring and evaluation are different but related activities. Monitoring involves the regular gathering of information in a consistent manner. It provides information to keep track of progress. Evaluation is the systematic review of a program, project, plan or other activity to determine whether it is working or delivering as intended. Evaluation involves the analysis of information collected via monitoring processes to make judgements and recommendations for future action.

Monitoring, evaluation and reporting activities also help to inform stakeholders (in this case University decision-makers, interested university staff and students, and external agencies) of key trends and issues. This also serves to educate and raise awareness about issues that need attention.

In response to the need to establish baseline and ongoing monitoring data due to the lack of useful data for university transport planning identified in preparing the UTAS STS 2012-2016, the UTAS Travel Behaviour Survey (TBS) project was initiated to provide baseline travel behaviour data and then ongoing data over time to inform planning and performance indicators. The survey was designed and developed as part of the *Sustainability Integration Program for Students* (SIPS). An ideal SIPS project, the TBS demonstrates applied planning relevance and skills development ideally suited to a Masters planning research project and a continuing wider transport research program. The TBS has since been run as an online survey of travel behaviour at the same time of year (March) in 2013 and 2015, allowing comparative analysis to inform evaluation for this strategy. In 2013, almost 4000 staff and students participated, while in 2015 almost 4500 participated. Data is collected from all campus locations in Tasmania and Greater Sydney and provides information about travel behaviour. It provides indicators on travel mode for the journey to and from work/study, details about local university business travel demand and mode, and GreenCard® ownership. Data can be analysed according to region, campus, gender, and staff and student populations.

In addition to the TBS, the University also regularly undertakes observational surveys and counts of bicycle riders and pedestrians at major campuses. Some of these surveys have involved students as part of their learning activities. Due to NGER reporting obligations, data is regularly collected on the university's fleet fuel usage and greenhouse gas emissions, while Metro Tasmania also provide data on bus boardings at key University bus stops.

The development of the UTAS STS includes a commitment to monitoring and reporting of key indicators and evaluation. Progress against strategy objectives is reported biennially in Implementation Progress Reports<sup>42</sup> prepared by the Sustainability Manager and in the TBS summary reports<sup>43</sup>.

Monitoring and reporting progress and sharing data, as we have done with government agency and public transport stakeholders, also assists the exploration of collaborative opportunities with other stakeholders who have complementary agendas. Data collection thereby underpins a sound evidence base for effective decision-making, and advocacy for wider community transport infrastructure and planning initiatives that will help deliver the aspirations and actions recommended in this STS.

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<sup>42</sup> The 2014 Implementation Progress Reports is available at: [http://www.utas.edu.au/\\_data/assets/pdf\\_file/0007/519757/Transport-Strategy-Progress-Report-March-2014\\_for-web.pdf](http://www.utas.edu.au/_data/assets/pdf_file/0007/519757/Transport-Strategy-Progress-Report-March-2014_for-web.pdf)

<sup>43</sup> The 2013 and 2015 TBS Summary reports are available at <http://www.utas.edu.au/commercial-services-development/sustainability/transport/utas-travel-surveys>

## **Appendix A**

### **TABLES OF STRATEGIC ACTIONS**

## UNIVERSITY OF TASMANIA SUSTAINABLE TRANSPORT STRATEGY 2017-2021

### STRATEGIC ACTIONS

The following is a matrix of agreed strategic actions (SAs) for 2017-2021. The SAs link directly to the four strategy objectives and include actions associated with:

- University campus and facilities planning and development
- University vehicle fleet and staff business travel
- Sustainable Transport promotion and safety
- Parking
- Information and communications technology
- Stakeholder engagement
- Data and performance monitoring
- Student, academic and community engagement

Some actions are things that can be implemented immediately, while others require more lengthy delivery periods or are ongoing activities. Responsibility for delivery is shown in the far right column. Initiatives will require working with a range of internal UTAS units as well as external partners. Abbreviations for internal units/groups are:

CSD	UTAS Commercial Services & Development
EfS CoP	UTAS Education for Sustainability Community of Practice
ITS	UTAS Information Technology Services
WHS	UTAS Work Health & Safety Unit
HR	UTAS Human Resources
ICT	UTAS Information & Communication Technology
SIPS	UTAS Sustainability Integration Program for Students
TUU	Tasmanian University Union

## Whole of University (UTAS)

Strategic Actions		Alignment to Strategic Objectives				Design to Delivery Period				Unit or agency responsible
		1	2	3	4					
SA Code		Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	UTAS domain of responsibility and/or external agency
		<b>University Campus &amp; Facilities Planning &amp; Development</b>								
SA1	Continue to integrate sustainable transport objectives and desired outcomes outlined in the UTAS STS in all campuses and facilities (including student accommodation) development programs and policies, Master Plans, and design processes, including application of Green Star requirements and Healthy Campus Initiative guidelines. Development proposals, campus Master Plans and facility designs should: i) demonstrate how STS objectives are met and ii) how the value of local services/facilities of benefit to students/staff are captured to reduce the need for travel and enhance opportunities for short active trips	✓	✓	✓	✓				✓	CSD and whole of organisation
SA2	Ensure UTAS STS projects are disability compliant as per federal regulations and design standards	✓							✓	CSD supported by HR
SA3	Explore options and feasibility for establishing sub-regional study hubs to support remote student access to university services and facilitate collaborative and community-based learning	✓	✓	✓	✓		✓			ITS, Student Experience CSD
SA4	Improve and expand secure bicycle storage facilities to reduce risk of theft and property damage as well as provide protection from weather (rain and extreme heat), and electric bicycle charging facilities (Burnie, Rozelle, IMAS Taroona priority examples)	✓	✓	✓					✓	CSD
SA5	Improve and expand motorcycle/scooter parking to reduce risk of property damage, provide protection from weather and cater for new fuel sources (e.g. electric charging points)		✓	✓	✓				✓	CSD
SA6	Ensure that decision-making with regard to transport planning, travel and transport choices takes into account minimisation of greenhouse gas emissions and offsetting any residual emissions (including for air travel)		✓	✓	✓				✓	CSD and whole of institution

## Whole of University (UTAS)

Strategic Actions		Alignment to Strategic Objectives				Design to Delivery Period				Unit or agency responsible
		1	2	3	4					
		Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	UTAS domain of responsibility and/or external agency
<b>SA Code</b>	<b>University Vehicle Fleet and Staff Business Travel</b>									
<b>SA7</b>	Continue to grow the proportion of electric and hybrid vehicles in the UTAS fleet or contracted services and provide electric vehicle charging points at additional locations of need (IMAS Tarooma a priority example)			✓	✓				✓	CSD
<b>SA8</b>	Procure staff GreenCards® in Tasmania or Opal® cards in Sydney for local business bus travel use	✓	✓	✓	✓	✓				CSD with HR, Finance (procurement), ITS
<b>SA9</b>	Where use of public transport and active modes are not an option for local business meetings, use inter-campus travel options such as: <ul style="list-style-type: none"> <li>• preferred taxi providers with fuel-efficient fleets</li> <li>• car-sharing (e.g. priority for Go-Get at Rozelle staff use working with the Inner West Council to secure dedicated parking near the campus)</li> </ul>	✓	✓	✓	✓	✓				CSD work with HR, Finance (procurement), ITS
<b>SA10</b>	Improve UTAS fleet vehicle-booking system to include a checklist for transport and vehicle options for journey purpose(s) and encouraging carpooling with other University staff. Include links to information about alternative options where these are appropriate (carpooling, local bus services, minibus hire, car-share services, taxi)	✓	✓	✓	✓	✓				CSD work with HR, Finance (procurement), ITS
<b>SA11</b>	Continue to improve ICT facilities to obviate the need for physical travel (e.g. Skype for Business, videoconferencing)	✓	✓	✓	✓				✓	ITS
<b>SA12</b>	Promote high frequency bus services (existing and forthcoming) in urban centres for local business travel and commuting	✓	✓	✓					✓	CSD and Media

## Whole of University (UTAS)

Strategic Actions		Alignment to Strategic Objectives				Design to Delivery Period				Unit or agency responsible
		1	2	3	4					UTAS domain of responsibility and/or external agency
		Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	
<b>SA Code</b>	<b>Sustainable Transport Promotion and Safety</b>									
<b>SA13</b>	Continue to provide sustainable transport information and familiarisation opportunities to students, staff and visitors on arrival/commencement (including prospective student information packs, Student Orientation week, open days, staff induction, major events/conferences), promoting sustainable choices, appropriate etiquette, safety considerations, and providing incentives such as free and/or pre-charged GreenCards® in Tasmania or Opal® cards in Sydney)	✓	✓	✓	✓				✓	Marketing and Communications supported by CSD; TUU
<b>SA14</b>	Develop a UTAS 'Healthy & Safe Bicycle Use' policy and communicate this to staff, students, and visitors and/or embed this into WHS initiatives and the Safe Use of Vehicles policy	✓			✓	✓				WHS, Legal, supported by CSD
<b>SA15</b>	Support on-campus bike safety and etiquette training events facilitated by appropriate third parties	✓			✓				✓	CSD, Student Experience
<b>SA16</b>	Improve and expand on campus pedestrian and cycle safety, especially improving lighting, signage, and maintenance of facilities	✓	✓	✓					✓	CSD
<b>SA17</b>	Pilot car-share schemes (e.g. priority for Hobart accommodation services)	✓	✓	✓	✓	✓				CSD, Student Experience
<b>SA18</b>	Explore opportunities for showcasing projects across all aspects of this strategy	✓	✓	✓	✓				✓	CSD and others
<b>SA19</b>	Work with other agencies to plan improved cycle network connectivity, safety, and way-finding to enhance connectivity to university campuses and student accommodation facilities (e.g. within and between Tasmanian CBDs and campuses)	✓			✓				✓	CSD with all relevant local councils, Dept. State Growth



## Whole of University (UTAS)

Strategic Actions		Alignment to Strategic Objectives				Design to Delivery Period				Unit or agency responsible
		1	2	3	4					
		Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	UTAS domain of responsibility and/or external agency
<b>SA Code</b>	<b>Sustainable Transport Promotion and Safety cont'd...</b>									
<b>SA20</b>	Promotion of high frequency bus services (i.e. Turn Up and Go service) in the urban centres (e.g. Sandy Bay to Hobart CBD; Newnham to Launceston CBD) and priority regional route services (e.g. Northwest link to Burnie) for local student travel and commuting	✓	✓	✓					✓	CSD and Media, Metro Tas
<b>SA21</b>	Work with Metro Tasmania and State Government to explore: expansion of student concession fare eligibility to include part-time and international students; and/or alternative fare incentive schemes to reduce the cost of public transport and encourage use	✓	✓	✓	✓			✓		CSD, Metro Tasmania
<b>SA22</b>	Improve way-finding signage and its consistency including walk/cycle times between campuses and public transport access (e.g. priority for Rozelle Campus to North Leichhardt Light Rail Station, Sydney)	✓				✓				CSD with Leichhardt Council & Transport NSW
<b>SA23</b>	Improve and promote integrated cycle route map and pedestrian-public transport access maps to aid multi-modal trip journey planning (priority for Rozelle)	✓			✓	✓				CSD, Rozelle management
<b>SA24</b>	Continue upgrades to on-site shower and change facilities for active transport users (priorities at West Park, Burnie; Rozelle, Sydney; Sandy Bay and IMAS Taroona, Hobart; and AMC, Launceston)	✓	✓						✓	CSD with approval from respective local councils
<b>SA25</b>	Encourage informal student carpooling through proactive reminders in class sessions and around campus using ICT screen messages (or MyLo message posts) at end of class and production of posters (e.g. priority for Rozelle and Cradle Coast campuses)	✓	✓	✓	✓	✓				CSD, regional site managers
<b>SA26</b>	Work with interested external agencies to explore the feasibility of an inner city bike-share scheme of benefit to UTAS students and staff (in Hobart and/or Launceston)	✓	✓	✓	✓		✓			CSD, external partner (potential SIPS project)

## Whole of University (UTAS)

Strategic Actions		Alignment to Strategic Objectives				Design to Delivery Period				Unit or agency responsible
		1	2	3	4					
		Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	UTAS domain of responsibility and/or external agency
<b>SA Code</b>	<b>Parking</b>									
<b>SA27</b>	Identify and implement parking strategies for encouraging low-carbon emissions from vehicles, such as: <ul style="list-style-type: none"> <li>• integration and enforcement (e.g. bollards) of priority parking for small/fuel-efficient vehicles and carpoolers</li> <li>• more motorbike/scooter parking, including covered parking areas</li> <li>• parking-permit price variance according to car size/fuel efficiency</li> </ul>		✓	✓		✓				CSD
<b>SA28</b>	Explore parking priority options for remote students and students disadvantaged by poor sustainable transport options	✓			✓		✓			CSD
<b>SA29</b>	In accordance with Action SA1 and the objectives of this STS, ensure that new developments consider a full range of options to reduce or limit growth of parking demand on and off-campus	✓	✓	✓	✓				✓	CSD
	<b>Information &amp; Communications Technology</b>									
<b>SA30</b>	Provide more 'hands on video-conference' training (e.g. Skype for Business, Video Conference Improvement Program enhancements)		✓	✓					✓	ITS
<b>SA31</b>	Develop a web/smart device accessible transport and trip planning app/tool for students, staff, and visitors (including links to information on bike routes, bike use etiquette/safety, bus service information, real-time bus service status, inter-campus travel options, etc). Explore the opportunity to work with the Dept. State Growth who also have this as an initiative	✓	✓		✓	✓				CSD (Mobile Maps) or via SIPS involving ICT students, Dept. State Growth
<b>SA32</b>	Continue to improve ICT facilities to assist remote access to university services and reduce the need to travel, especially inter-region	✓	✓	✓	✓				✓	ITS, Academic units, Student Experience
<b>SA33</b>	Continue to explore integrated University ID/GreenCard® opportunity with Metro Tasmania	✓	✓		✓				✓	ITS/CSD, Metro Tasmania

## Whole of University (UTAS)

Strategic Actions		Alignment to Strategic Objectives				Design to Delivery Period				Unit or agency responsible
		1	2	3	4					
		Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	UTAS domain of responsibility and/or external agency
<b>SA Code</b>	<b>Stakeholder Engagement</b>									
<b>SA34</b>	Develop and implement a sustainable transport stakeholder engagement action plan and guidelines that explore opportunities to collaborate with stakeholders to deliver projects across all aspects of this strategy (e.g. bike-share schemes, shared 'car-share' schemes, etc)	✓	✓	✓	✓	✓				CSD
<b>SA35</b>	Engage with the Peter Underwood Centre for Educational Attainment to identify locations disadvantaged with respect to transport and educational access and develop initiatives for improving accessibility to educational services and facilities	✓	✓		✓		✓			CSD, ITS, Underwood Centre, whole of institution
<b>SA36</b>	Contribute to the Tasmanian 2018 bus service contract review and the Metro Tasmania bus service reviews (e.g. Greater Launceston and Burnie/Cradle Coast), including identifying bus frequency, connectivity issues and ticketing improvement	✓	✓			✓	✓			CSD
<b>SA37</b>	Continue to participate in state-wide planning and community-driven initiatives for electrification of the Tasmanian vehicle fleet			✓	✓				✓	CSD
<b>SA38</b>	Support infrastructure projects and urban design that enhance access and connectivity to UTAS campuses/facilities by active modes (such as dedicated walk/bike pathways, 'park-and-ride' (car+bus) and 'ride-and-ride' (bike+bus)) [e.g. Kingston and outer Eastern suburbs and complementary bus service improvements]	✓	✓	✓	✓				✓	CSD and whole of institution

## Whole of University (UTAS)

		Alignment to Strategic Objectives				Design to Delivery Period				Delivery Mode
		1	2	3	4					
SA Code	<b>Strategic Actions</b>	Maximise & promote access to university services by sustainable, healthy, safe means	Increase sustainable transport mode choice & reduce the incidence of unnecessary travel	Reduce greenhouse gas emissions from university transport sources & work towards carbon neutrality	Demonstrate leadership in sustainable transport practice	Within 1-2 Years	Within 2-3 Years	Within 5 Years	Ongoing	UTAS domain of responsibility and/or external agency
	<b>Data and Performance Monitoring</b>									
SA39	Continue to monitor, review performance, and identify transport issues through collection and reporting of quality data, particularly the biennial Travel Behaviour Survey and facility user observations, counts and surveys	✓	✓	✓	✓				✓	CSD
SA40	Collaborate with internal and external stakeholders in data collection, analysis and dissemination where data has benefit to the wider Tasmanian community and transport planning agencies	✓	✓	✓	✓		✓			CSD
<b>Student, Academic and Community Engagement</b>										
SA41	While delivering operational outcomes, where practicable and mutually useful, involve students and/or academic staff in project design and delivery of some of the above to provide: 1) practical and experiential learning for students; and 2) academic research opportunities and publication outputs				✓				✓	CSD, Efs CoP, UTAS Sustainability Committee (SIPS projects)
SA42	Deliver on broader institutional strategies and goals by including community engagement and partnerships in sustainable transport project design and delivery (e.g. Education for Sustainability Tasmania: a UN Regional Centre of Expertise; Institute for the Study of Social Change, Peter Underwood Centre for Educational Attainment, UTAS Menzies Institute for Medical Research)	✓	✓	✓	✓				✓	CSD and whole of institution

