# PRESENTATION OUTLINE

- **A bit about the University's Sustainable Transport Strategy**
- **An update on latest travel and transport data findings**
- **Reflection on our progress**
- **Further work, directions, opportunities - discussion**

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# Sustainable Transport Strategy 2012-2016


## Development & Context

# Why a Sustainable Transport Strategy for UTAS?

- **International commitment**
- **Community responsibility**
- **Regulatory requirements**
- **Business case**

Guides investments & actions that deliver more socially, economically & environmentally sustainable transport practices & outcomes.

# Development of the Strategy

**Scoping & research (2010-11):**

- Physicality and travel practices
- benchmarking
- What is happening in Tasmania and nationally

**Consultation & engagement (2011 & 2012):**

- executive & other interested staff
- external stakeholders

**Encouragement of collaboration (internal and external)**

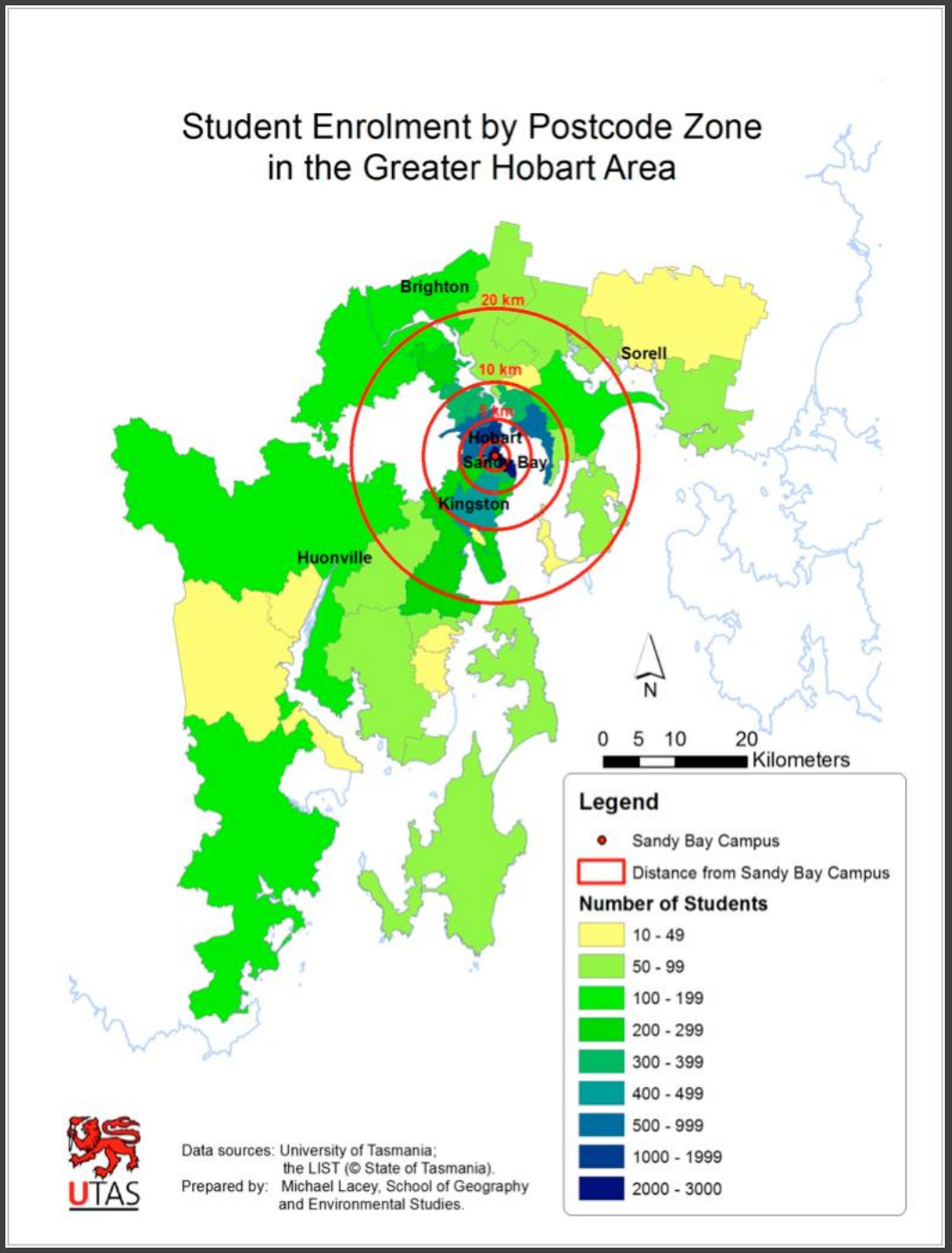
**Monitoring, evaluation & reviews (2013 & ongoing):**

- identified limited baseline data & need for performance monitoring
- UTAS Travel Behaviour Survey (biennially)

# Complex UTAS Transport Profile

- Multi-campuses/facilities across state
- Growing student population (local and international)
- Different regional characteristics in which campuses are located (infrastructure & services, settlement patterns & density)
- Different student/staff profiles in each campus/major facility (residential origins, socio-economic status, gender/life-stage, values & attitudes)

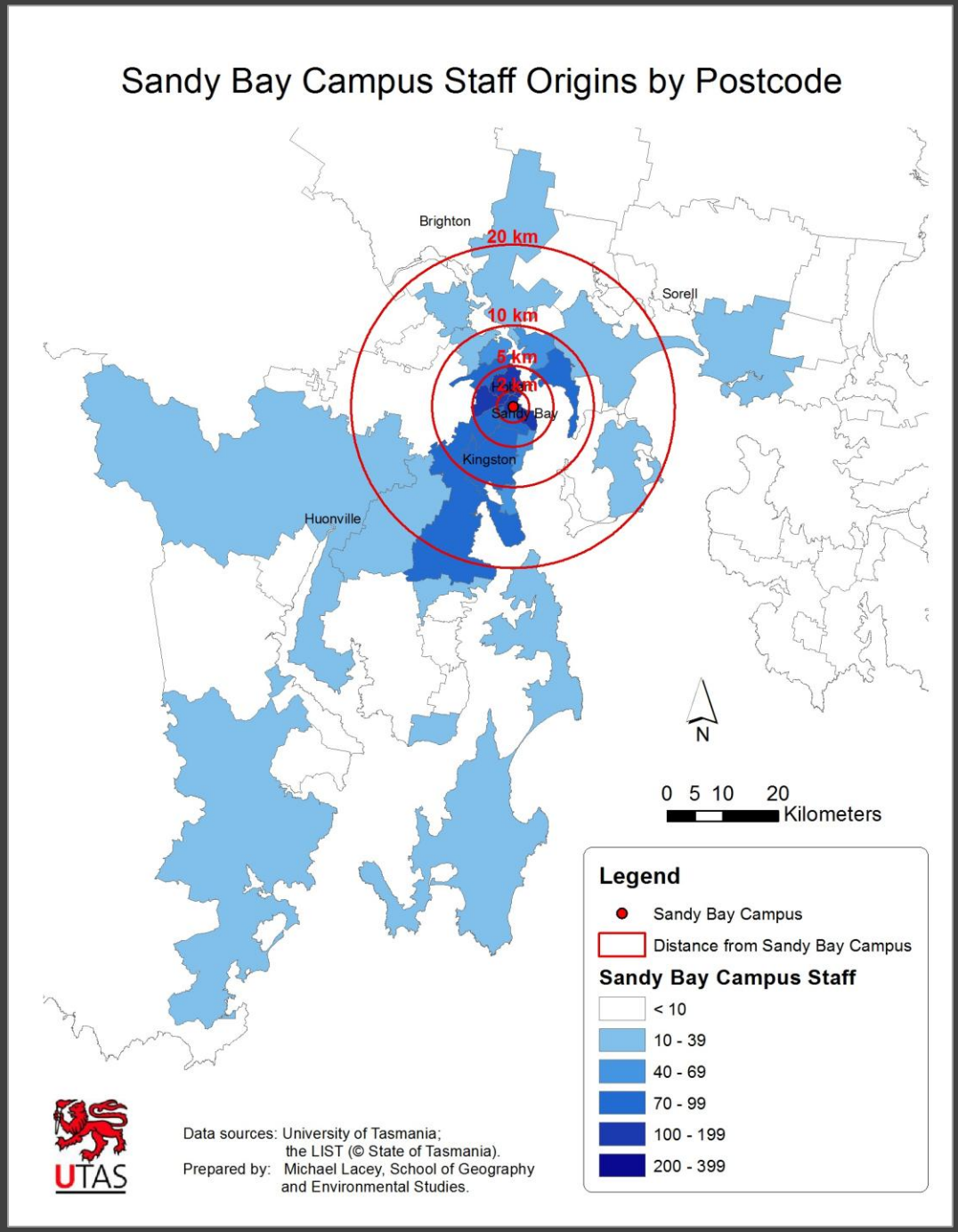
- Multiple transport issues (equity, access, cost of individual transport, transport costs to institution, environmental impact & responsibility)
- No silver bullet or one size fits all approach
- Need for more specific baseline travel behaviour data




High density of students within 2.5km zone

Substantial number in the 10km zone – Eastern shore, Kingston, northern suburbs corridors

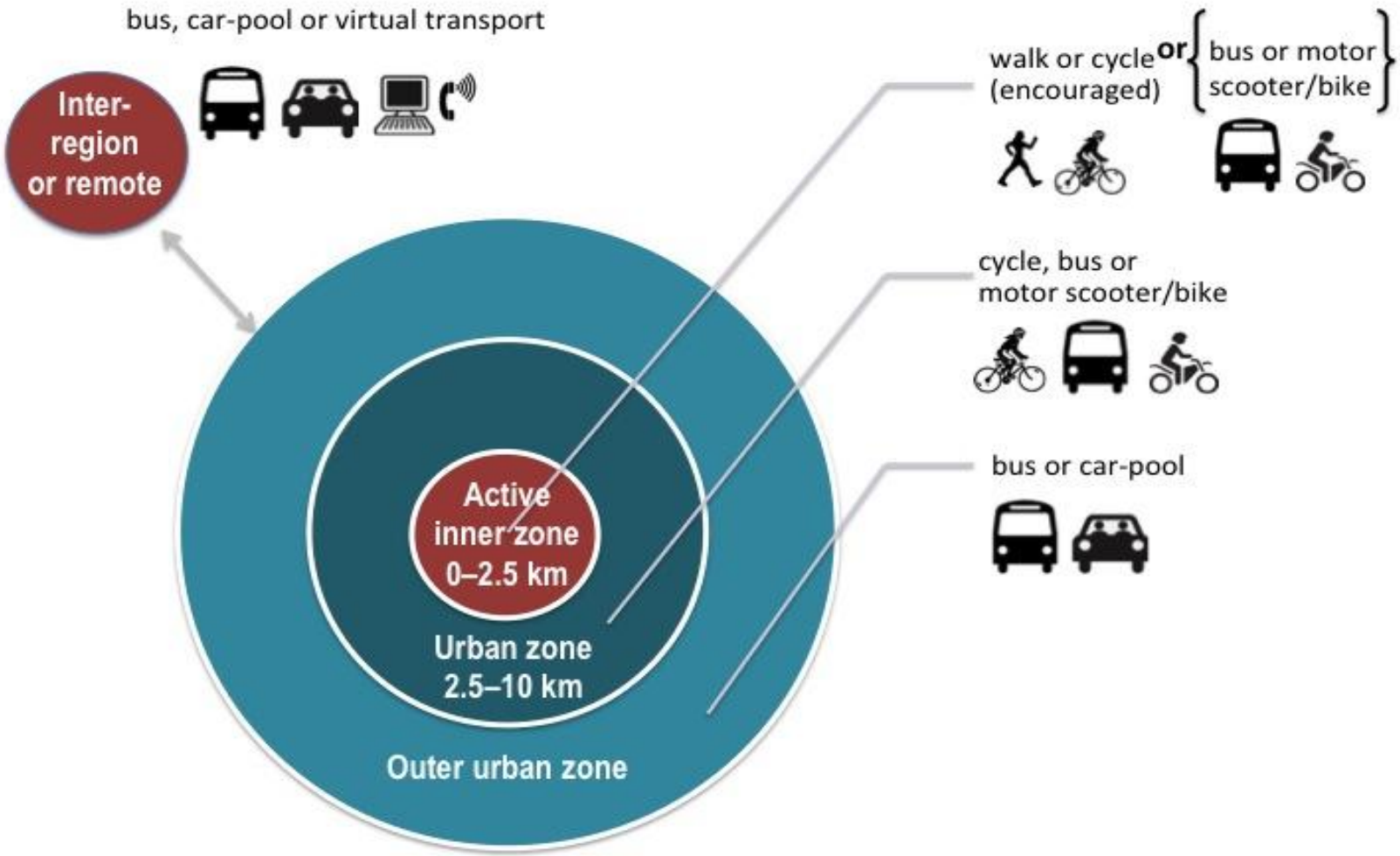
Significant number in outer reaches of region – especially north & east (10-30km) & Huon Valley (10-50km+)



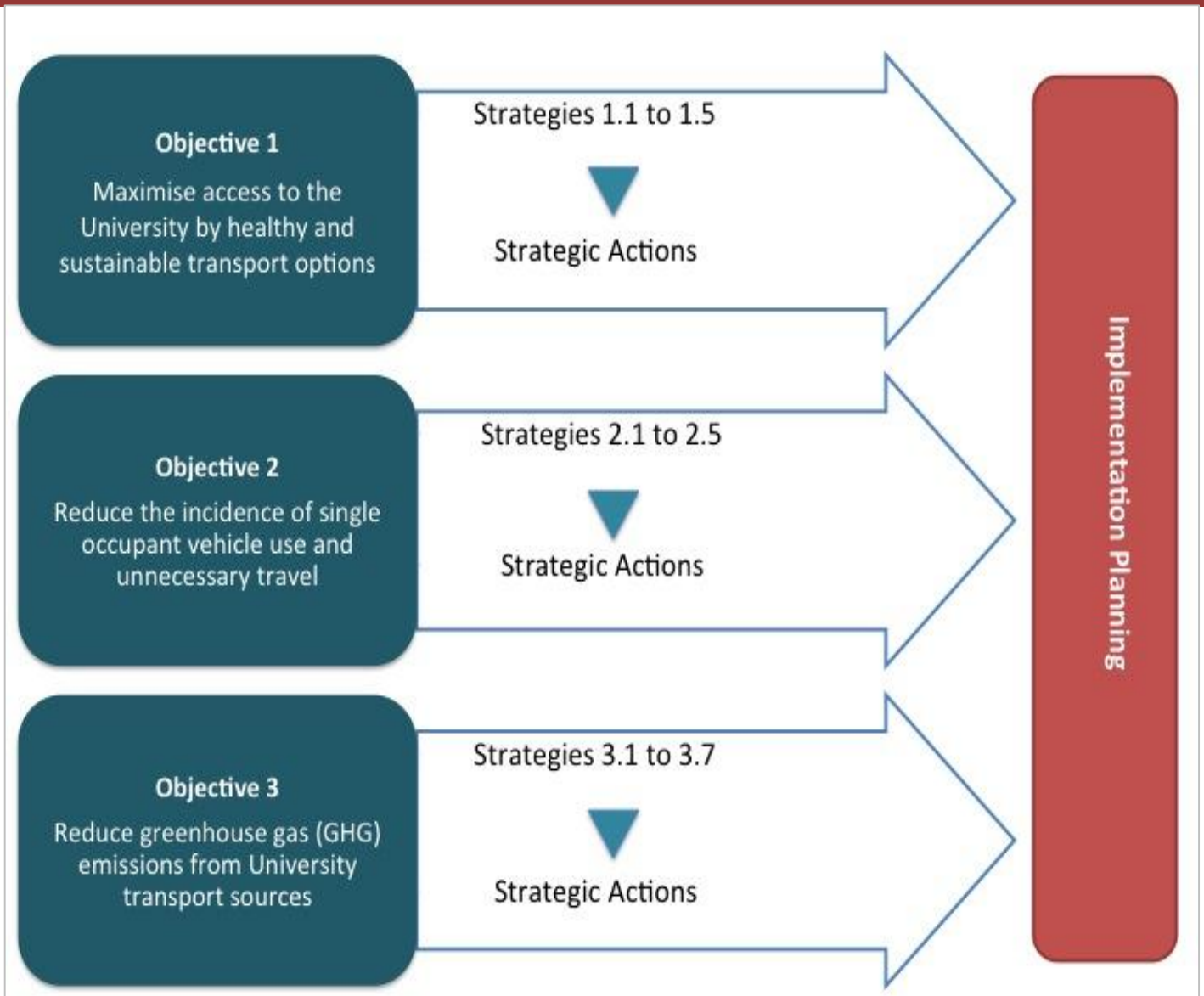

Majority of staff live within the 10km zone

Also an orientation to outer southern suburbs

# Responding to Diverse Travel Demand & Response Realities



# Strategy Framework



# Objective 1: Maximise access to the university by healthy and sustainable transport options

| | |
|---|---|
| 1.1 | Establish baseline measures and monitoring for this objective. |
| 1.2 | Provide and enhance walking, bicycling and motorcycle/scooter infrastructure (including end of trip facilities, cycle routes, safe and direct pedestrian routes). |
| 1.3 | Work with public transport providers to enhance public transport services to university facilities (including bus shelters, bus service information, WiFi, ticketing, bus route planning, bike user access, and new public transport modes in target corridors). |
| 1.4 | Coordinate with other initiatives and establish networks that further support our sustainable transport objectives. |
| 1.5 | Identify opportunities to reduce student and staff travel in-efficiencies through improvements to class timetables, e-learning and video conferencing access. |

# Objective 2: Reduce the incidence of single occupant vehicle use and unnecessary travel

| | |
|---|---|
| 2.1 | Establish baseline measures and monitoring for this objective. |
| 2.2 | Encourage students and staff to consider sharing vehicles or choosing non-car options for short trips. |
| 2.3 | Minimise the number of single occupant vehicle trips. |
| 2.4 | Create an environment where more efficient vehicle options are attractive (motor cycles/scooters, electric vehicles). |
| 2.5 | Create an environment where more efficient travel is considered. |

# Objective 3: Reduce greenhouse gas (GHG) emissions from university transport sources

| | |
|---|---|
| 3.1 | Establish baseline measures and monitoring for this objective (including GHG emissions from vehicle fleet, collective travel behaviour, and supply-chain activities) |
| 3.2 | Identify and implement emission reduction strategies for the UTAS vehicle fleet (including encouraging procurement of more efficient vehicles, use of alternative fuels and reduction of unnecessary vehicle use) |
| 3.3 | Identify opportunities to reduce GHG emissions from supply chains |
| 3.4 | Identify certified ethical carbon offset opportunities for any emissions we can't reduce and facilitate implementation of these |
| 3.5 | Support and recognise individuals and business units (Schools, Institutes, sections) who act to reduce their transport emissions. |
| 3.6 | Encourage more energy-efficient travel behaviour. |
| 3.7 | Identify and reduce unnecessary travel (including local business travel, flights) |

# Detailed Actions

| Objective 1 - Maximise access to the University by sustainable and healthy transport options | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Strategy** | **Whole of UTAS** | **Timing** | **South** *Hobart Sandy Bay Campus, Hobart CBD facilities, other facilities* | **Timing** | **North** *Launceston Newnham Campus, Inveresk Campus, Beauty Point, other facilities* | **Timing** | **North-West** *Burnie Cradle Coast Campus and North West Rural Clinical School* | **Timing** |
| 1.1 Establish baseline measures and monitoring for this objective | a) Survey: Undertake a university-wide online survey of staff and student travel behaviour, needs and attitudes to benchmark mode share, trip generation, and travel behaviour attitudes for the university and separate campuses and facilities and establish key performance indicators. | A | c) Walking: undertake a baseline audit of pedestrian movements and quality (directness, lighting, safety) of access routes (to Sandy Bay Campus and other main city facilities, within Sandy Bay campus, and between UTAS facilities and public transport services) to establish needs and performance indicators. | A | e) Walking: Undertake a baseline audit of pedestrian movements and quality (directness, lighting, safety) of access routes (to Newnham, Inveresk and Beauty Point campuses, within each campus, and between UTAS facilities and public transport services) to establish needs and performance indicators. | A | g) Walking: Undertake a baseline audit of pedestrian movements and quality (directness, lighting, safety) of access routes (to Cradle Coast Campus, NW Rural Clinical School, and key public transport services) to establish needs and performance indicators. | A |
| | b) Motorcycles/Scooters: Complete the baseline audit of ridership and parking provision at all campuses and main facilities to establish needs and performance indicators. | A | d) Bicycling: Complete the baseline audit of bicycle ridership, electric bike use, access routes and end of trip facilities in all Hobart facilities to establish needs and performance indicators. | A | f) Bicycling: Undertake a baseline audit of bicycle ridership, electric bike use, access routes and end of trip facilities for Newnham and Inveresk campuses and Beauty Point facilities to establish needs and performance indicators. | A | h) Bicycling: Undertake an audit of bicycle ridership, electric bike use, access routes and end of trip facilities for Cradle Coast Campus and NW Rural Clinical School to establish needs and performance indicators. | A |
| 1.2 Provide and enhance walking, bicycling and motorcycle/scooter infrastructure (including end of trip | a) Identify priorities, develop an action plan and implement end of trip bicycling infrastructure for all campuses and main facilities. | B | b) Identify priorities and develop an action plan for improving pedestrian and bicycle access and safety on campus and between Hobart main facilities, local activity centres and public transport services (based on pedestrian and bicycling audits and online survey). | B | d) Identify priorities and develop an action plan for improving pedestrian and bicycle access and safety on campuses and between Launceston/Beauty Point main facilities, local activity centres and public transport services (based on pedestrian and bicycling audits and online survey). | B | f) Identify priorities and develop an action plan for improving pedestrian and bicycle access and safety on campus and between main Burnie facilities, local activity centres and public transport services (based on pedestrian and bicycling audits and online survey). | B |

# Integrated Approaches

- **Raising awareness**
- **Providing incentives and disincentives**
- **Improve sustainable transport facilities and services**
- **Student involvement**

# Effecting Change

## Focus

- Active Transport
- Public transport
- Parking
- Non-SOV
  - Motorcycle/scooter
  - Car pooling
- Vehicle Fleet

## Implementation

- Infrastructure and equipment
- Services
- Engagement, Partnerships and Collaboration
- Baseline measurement and monitoring

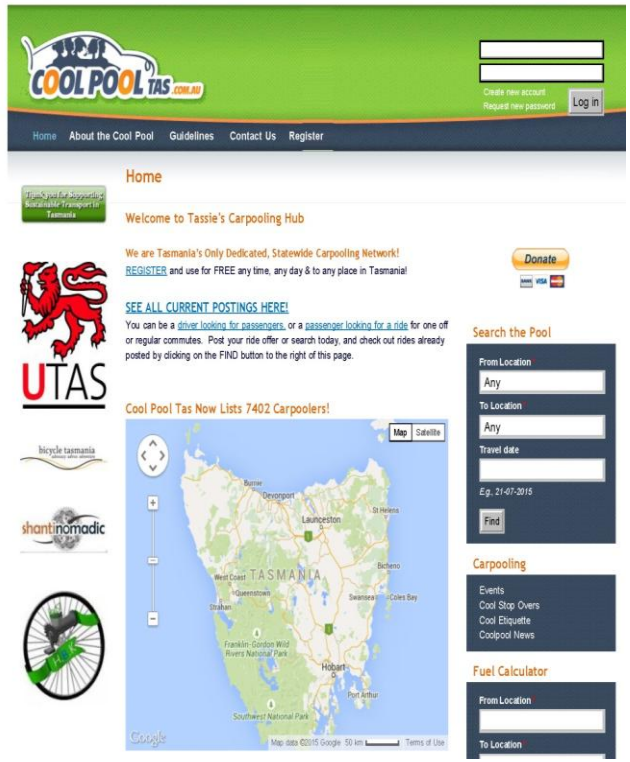
# Infrastructure and equipment

- Bus stop shelters (>$100k)
- Bicycles (>$2m)
  - More parking rails (>400 delivered; >300 programmed)
  - End of Trip Facilities
    - Secure and public access
    - Expanded types catered for (e.g., e-bikes)
    - Individual lockers (31)
    - Repair stations (9)
- Vehicle fleet
  - Hybrid (12; PHEV planned)
  - All-electric (2; more planned)
- Carpool parking
- More motorcycle parking (>30)
- Videoconference Improvement Program (VCIP)

# Services

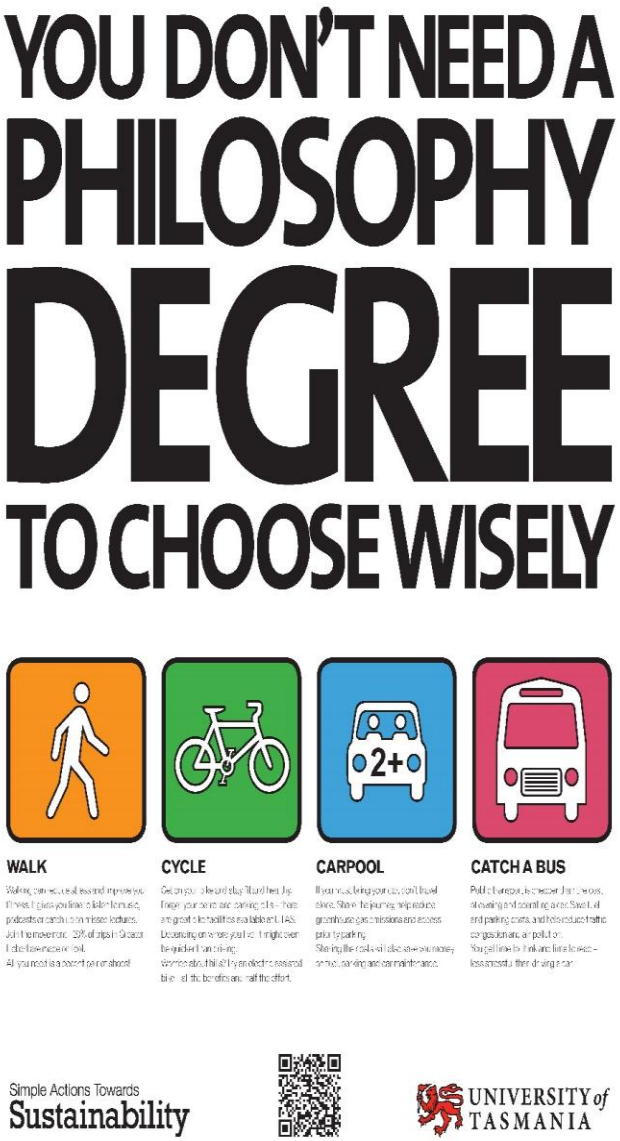
- Urban areas buses
- Inter-campus bus
- Carpooling
- Parking changes
- Eco-driving courses






# Engagement, Partnerships and Collaboration

- Jointly funded infrastructure
- Trial services
- Planning participation
- Grant applications
- Direct engagement
- Media coverage
- Posters / Sustainability Month
- Student activities / orientations



# SO, IS IT WORKING??

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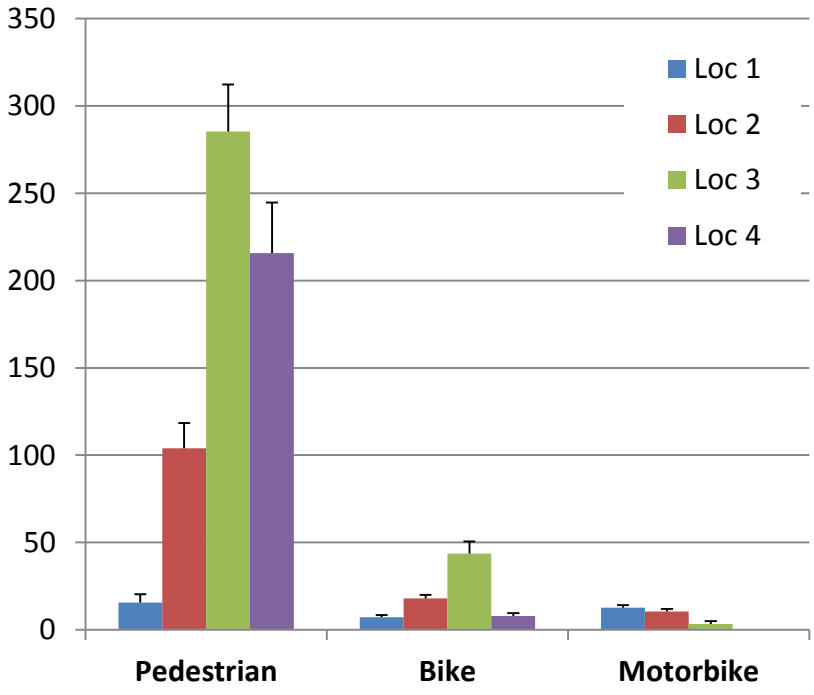
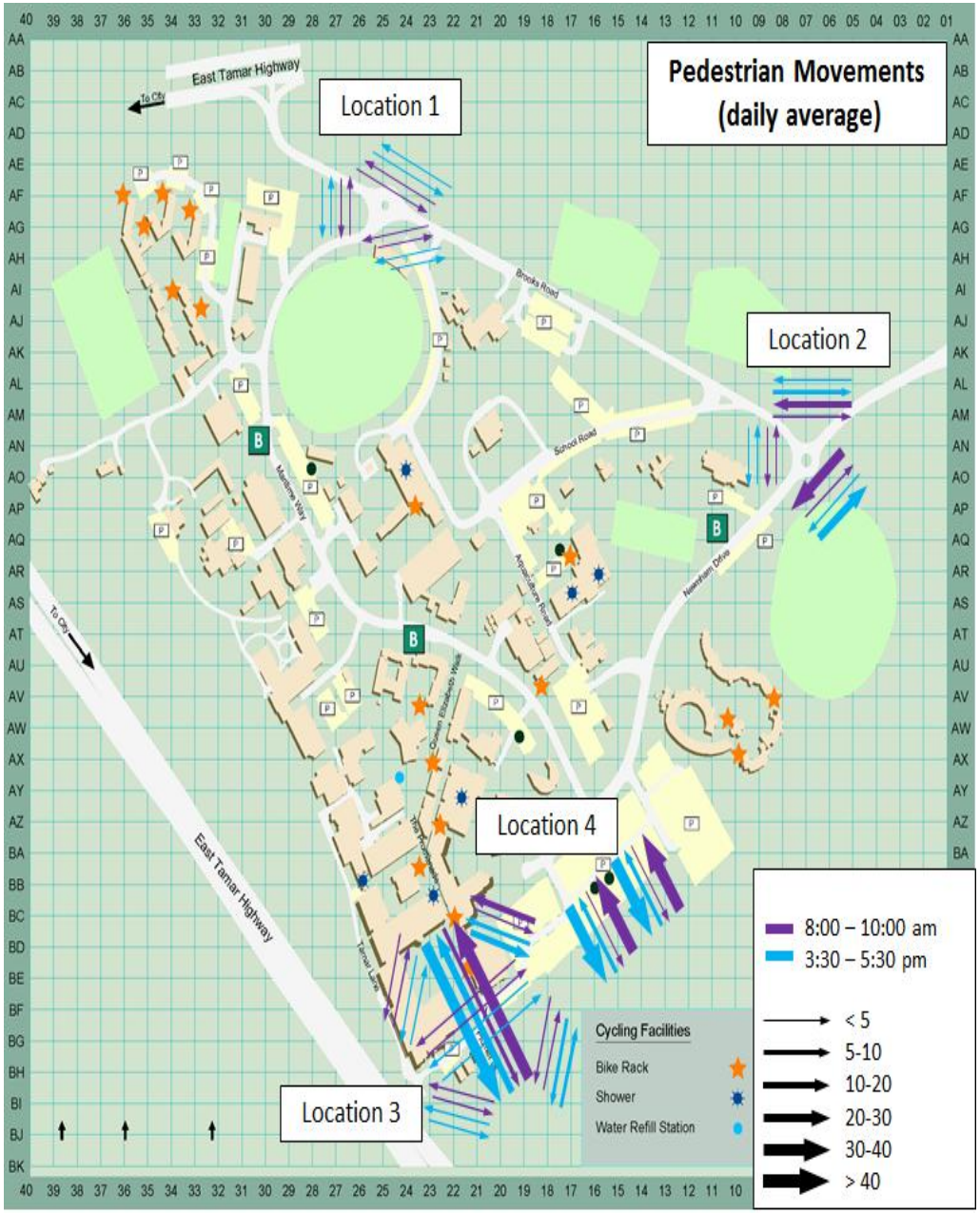
# Establish baseline measures and monitoring

- Bicycle, Motorcycle/scooter, Pedestrian
  - Movement counts (annually since 2012)
  - Stationary (i.e., parked; campus-specific since 2010)
- Surveys
  - Mode specific (2011, 2012)
  - Travel Behaviour Survey (2013, 2015)
- Motor Vehicle (automated counters; 2014, 2015)
- Access stakeholder data sets
  - Metro Tasmania
  - Redline
  - Travel agents

# Movement Counts

**March 2015**
**Daily average movements**

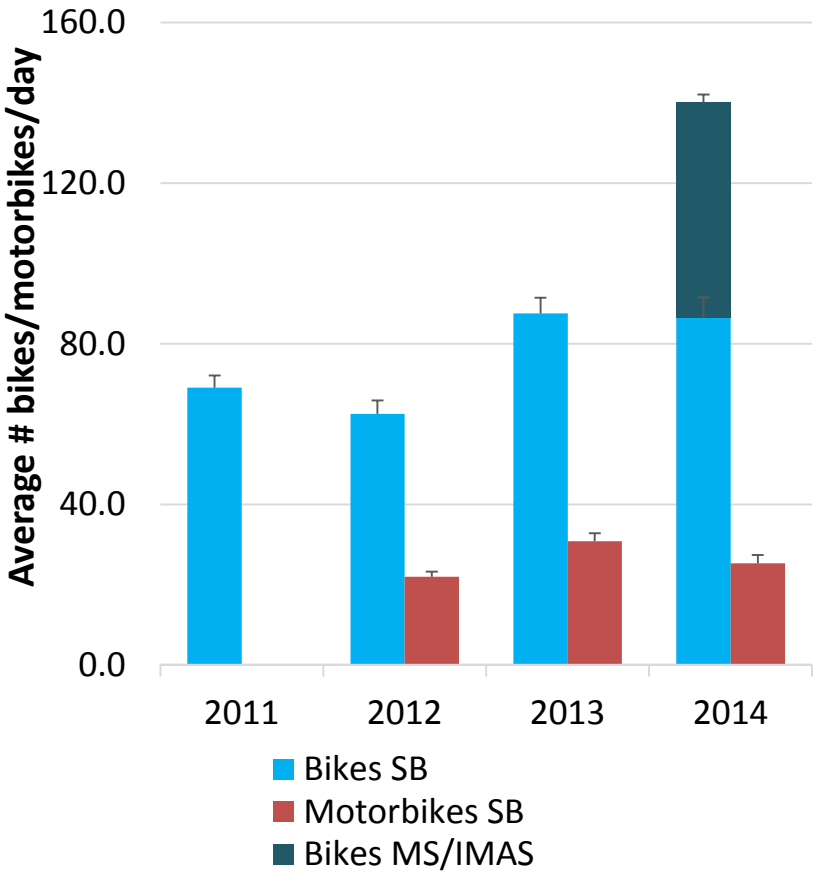


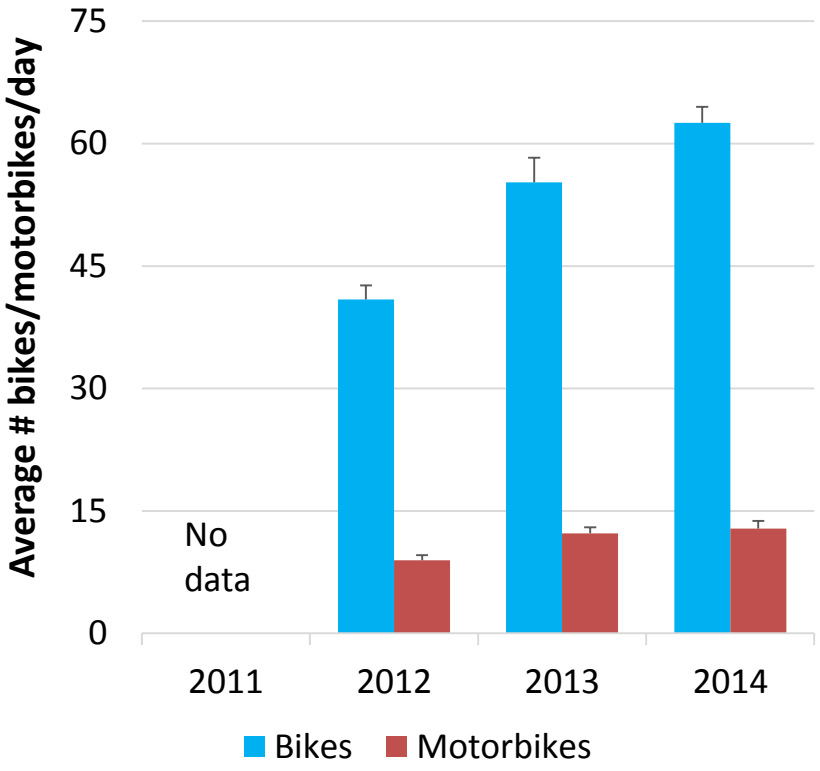
# Stationary Counts

## Daily average

### Hobart

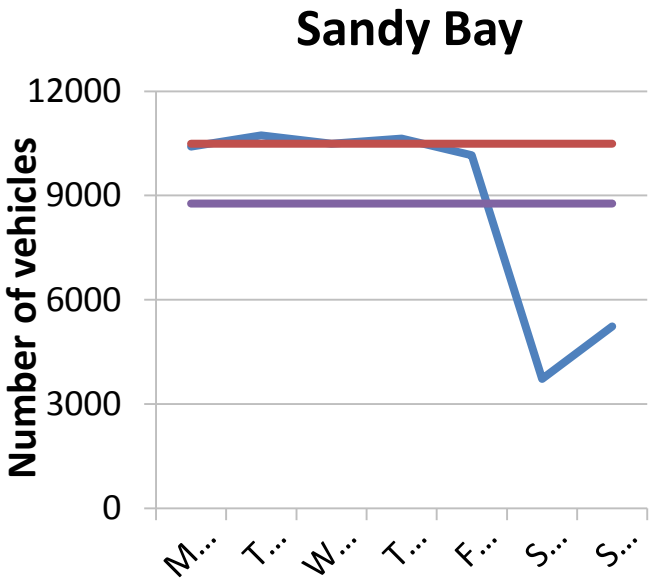


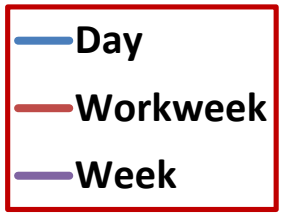

### Newnham

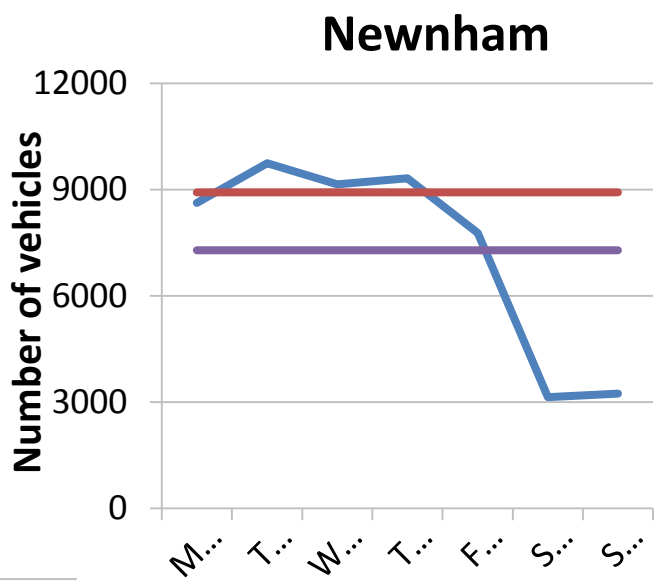


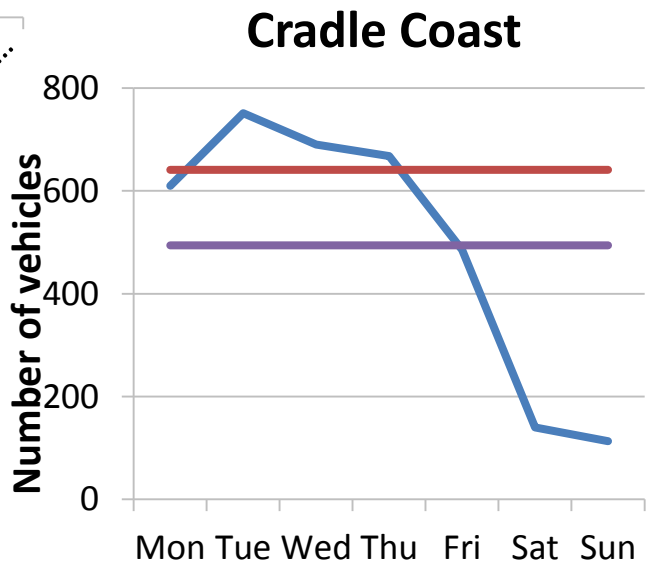
# Traffic Counts

## Average traffic

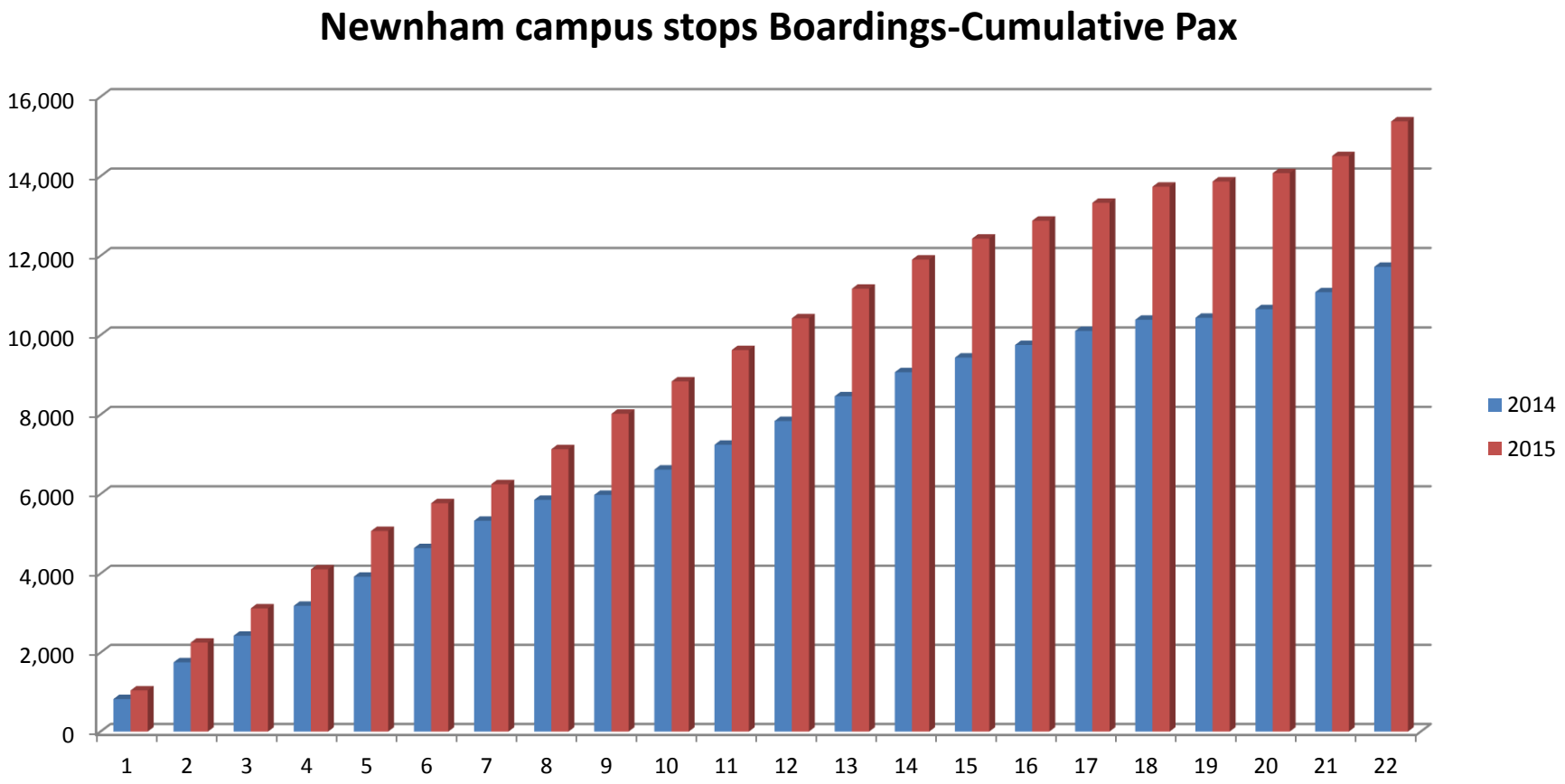


# New Turn Up & Go service

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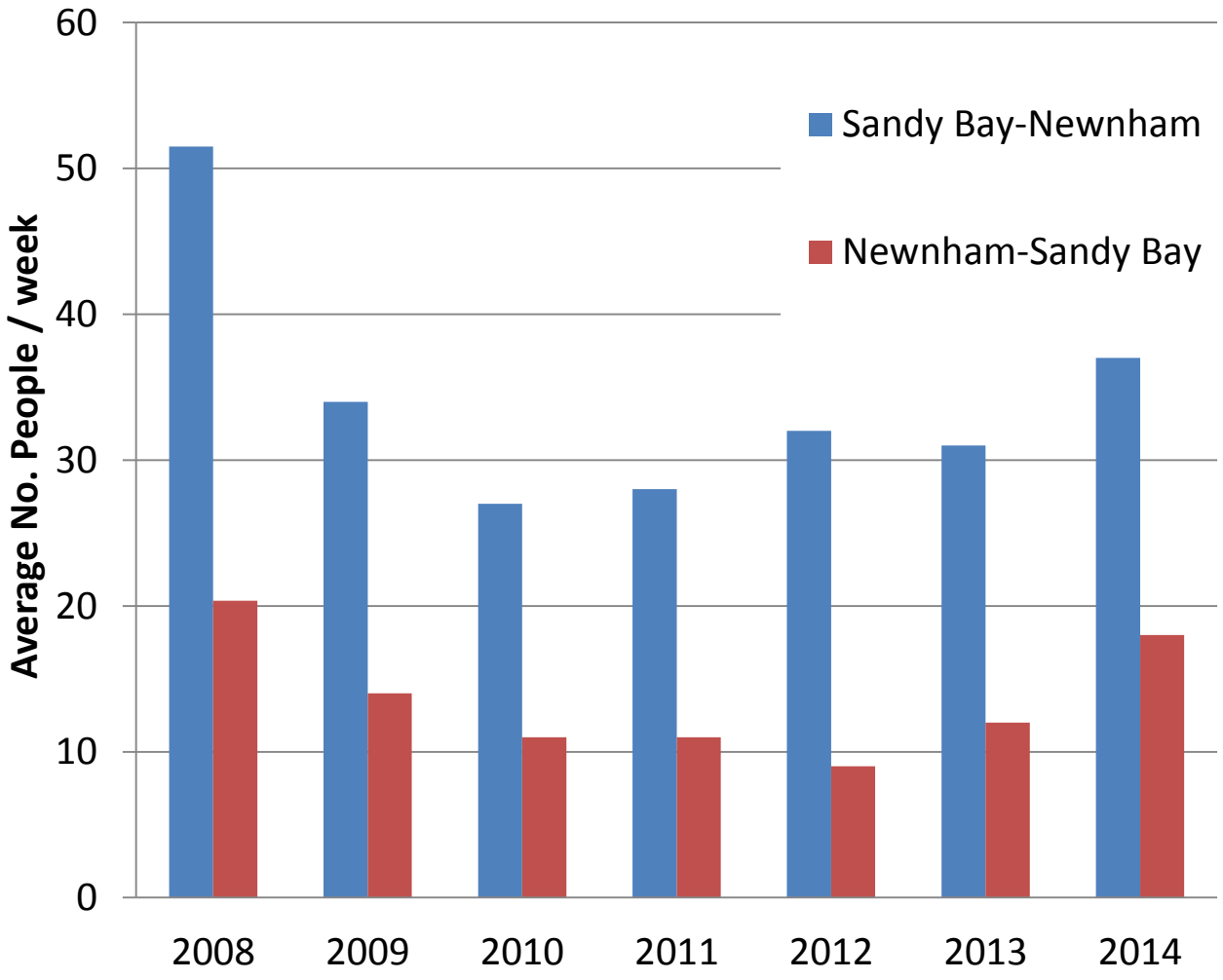
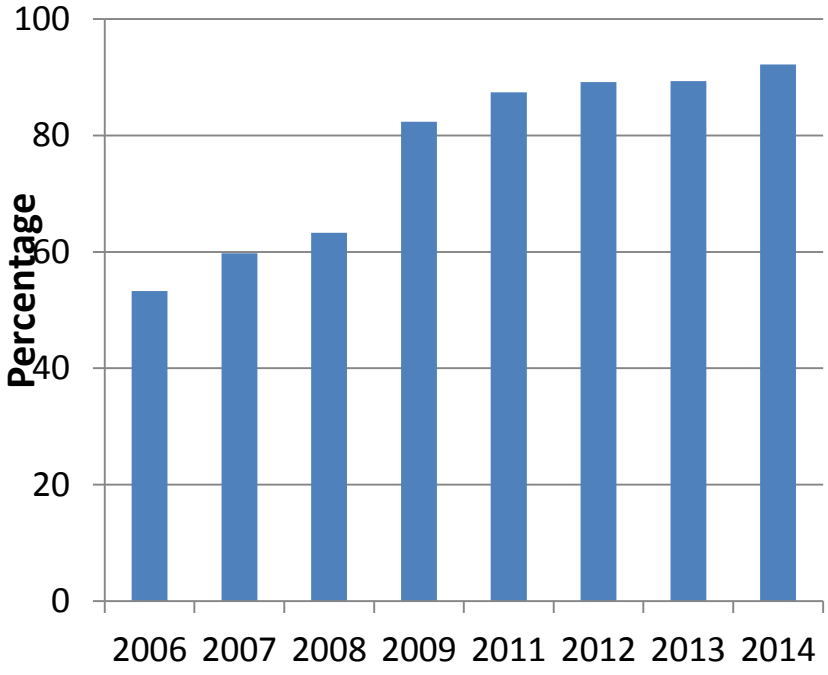
Metro

# Inter-campus Bus Services

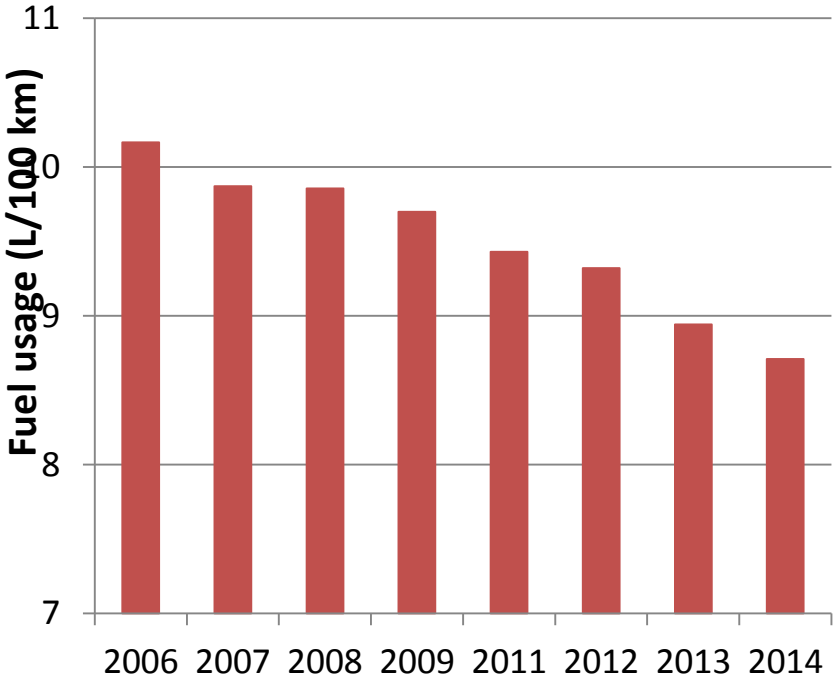


# UniFleet
# Greenhouse Gas emissions

## UTAS Vehicles meeting Minimum Greenhouse Rating




## Average Fuel Usage of UTAS Vehicles



# Biennial Travel Behaviour Survey

- Establish reliable baseline information and monitoring
- Inform university transport/facilities planning and advocacy
- Inform other state planning tasks
- Research program development (involving students & academics)

# TRAVEL BEHAVIOUR SURVEY DESIGN

- Reference to best practice in travel behaviour survey design
- Informed by other university travel behaviour surveys - national and international
- Non-probability sampling - online self-selection method in an attempt to reach as many students and staff as possible across numerous campuses and facilities.
- Two online surveys over two weeks in March 2013 / 2015 - staff and students all campuses and facilities
- Voluntary and widely publicised across all regions and campuses using News@UTAS. An incentive prize draw was offered.
- 27 questions asked participants to reflect on their travel behaviour for the previous week.
- The survey was designed to capture “how” the UTAS community travels at the time

# UTAS TRAVEL BEHAVIOUR SURVEY COMPARED TO OTHERS

## Other major datasets for Tasmania

- ABS (Census & Household Transport Use)
- DIER Greater Hobart Travel Survey 2009

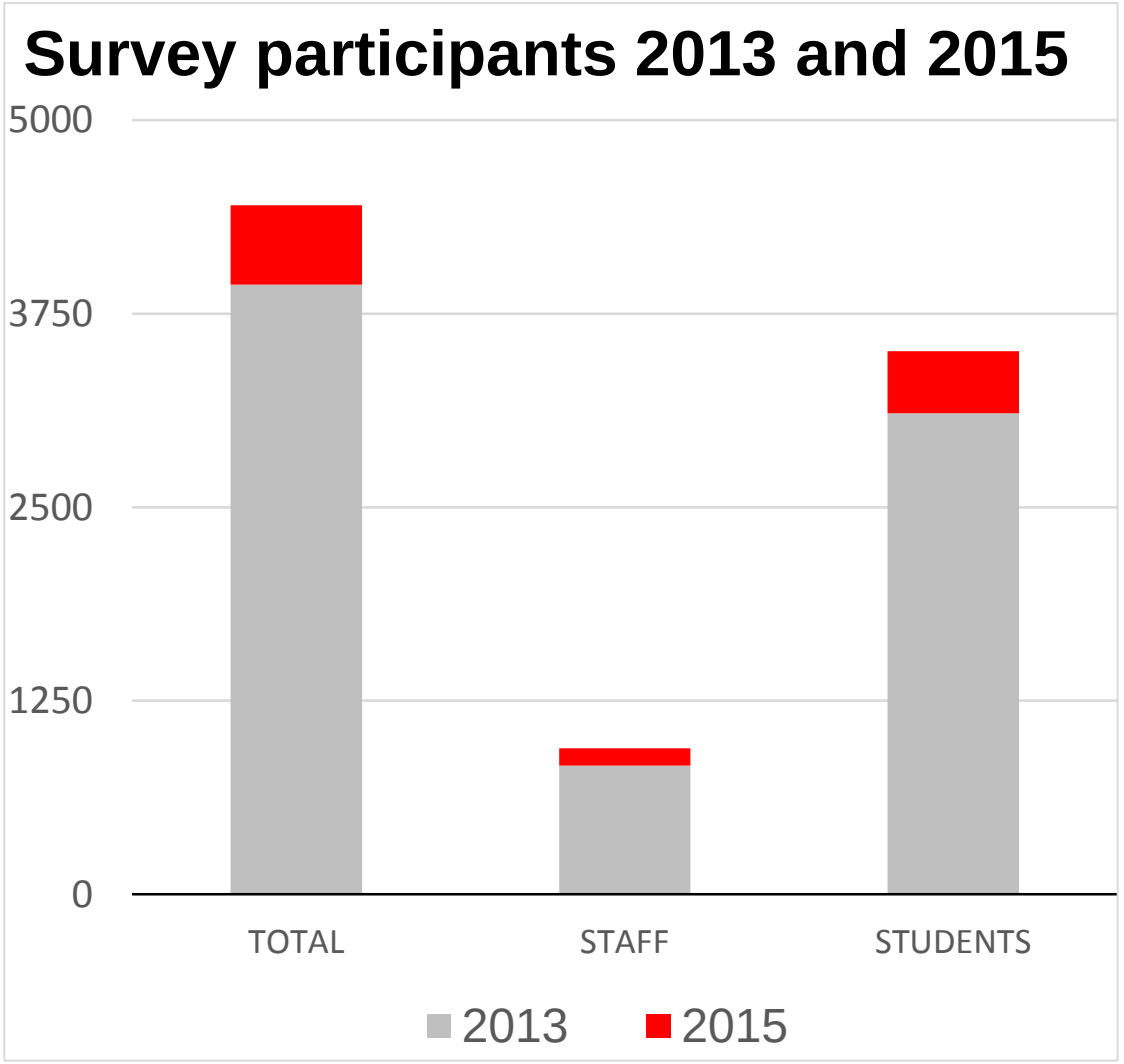
## Other Australian universities (examples)

- University of NSW (UNSW) – single metro campus - 10,000 respondents over 3 week period (2013), response rates similar to UTAS, student population more than double UTAS
- Monash University (metro multi-campus) – periodical surveys 2007-2013, 5100 respondents in 2013 (student population more than double UTAS)


# SURVEY OBJECTIVES

- Establish reliable baseline information on UTAS community travel behaviour and travel patterns across all Tasmanian campuses.
- Develop key performance indicators to guide delivery of transport services and facilities.
- Roll out biennially as a longitudinal survey and support performance monitoring.
- Support local and state planning.
- Engage postgraduate planning students and make data available for research projects.

# SURVEY RESPONSE




**2015**

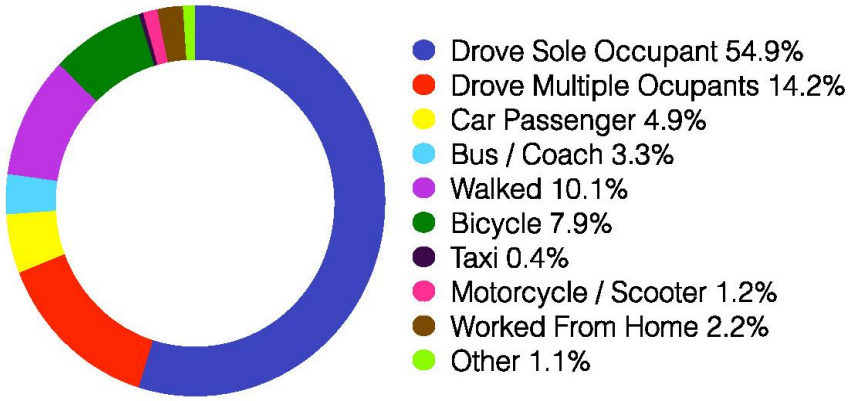
943 STAFF RESPONSES

STUDENT RESPONSES 3507

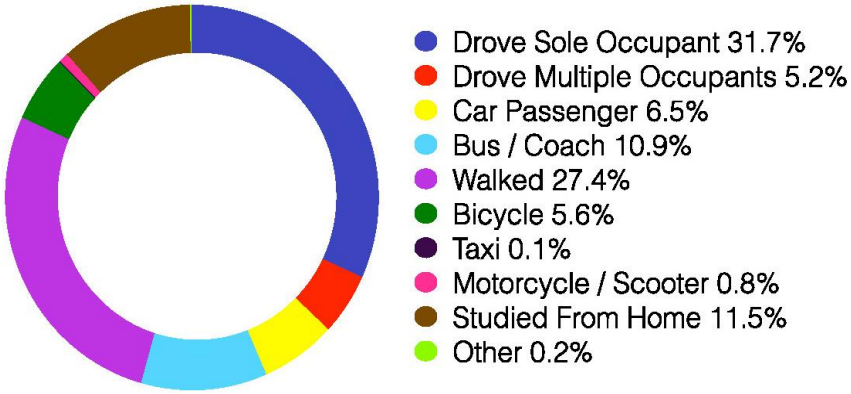
Response Rates
Staff 27%
Students 12%

# MODE SHARE 2013 & 2015

## 2013

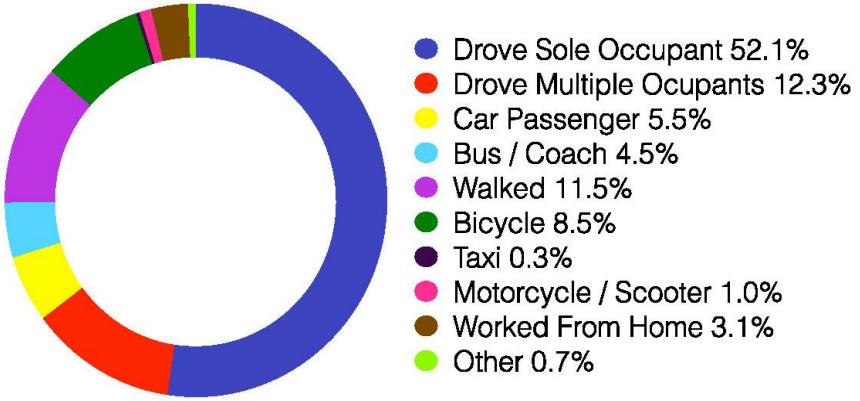



Mode of transport utilised by staff travelling to / from home / work

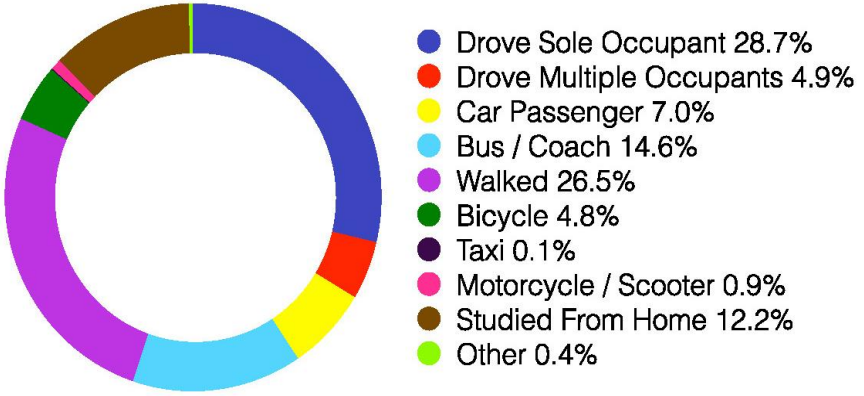



Mode of transport utilised by students travelling to / from home / study

## 2015




Mode of transport utilised by staff travelling to / from home / work




Mode of transport utilised by students travelling to / from home / stud

# MULTI MODAL TRIPS

## (a trip involving more than one mode of transport)

1 in 10 trips to work or study comprise two or more modes in 2013 & 2015

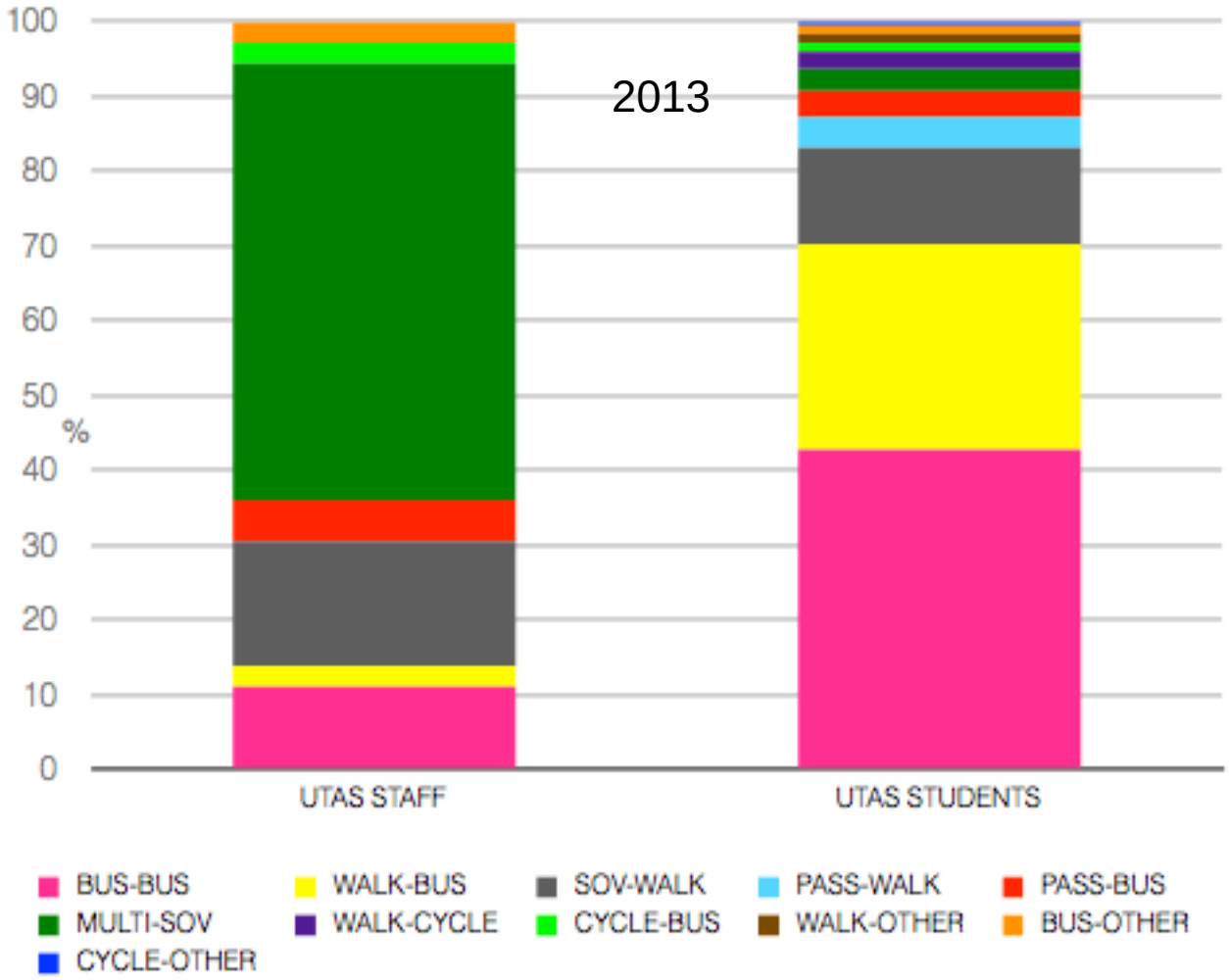
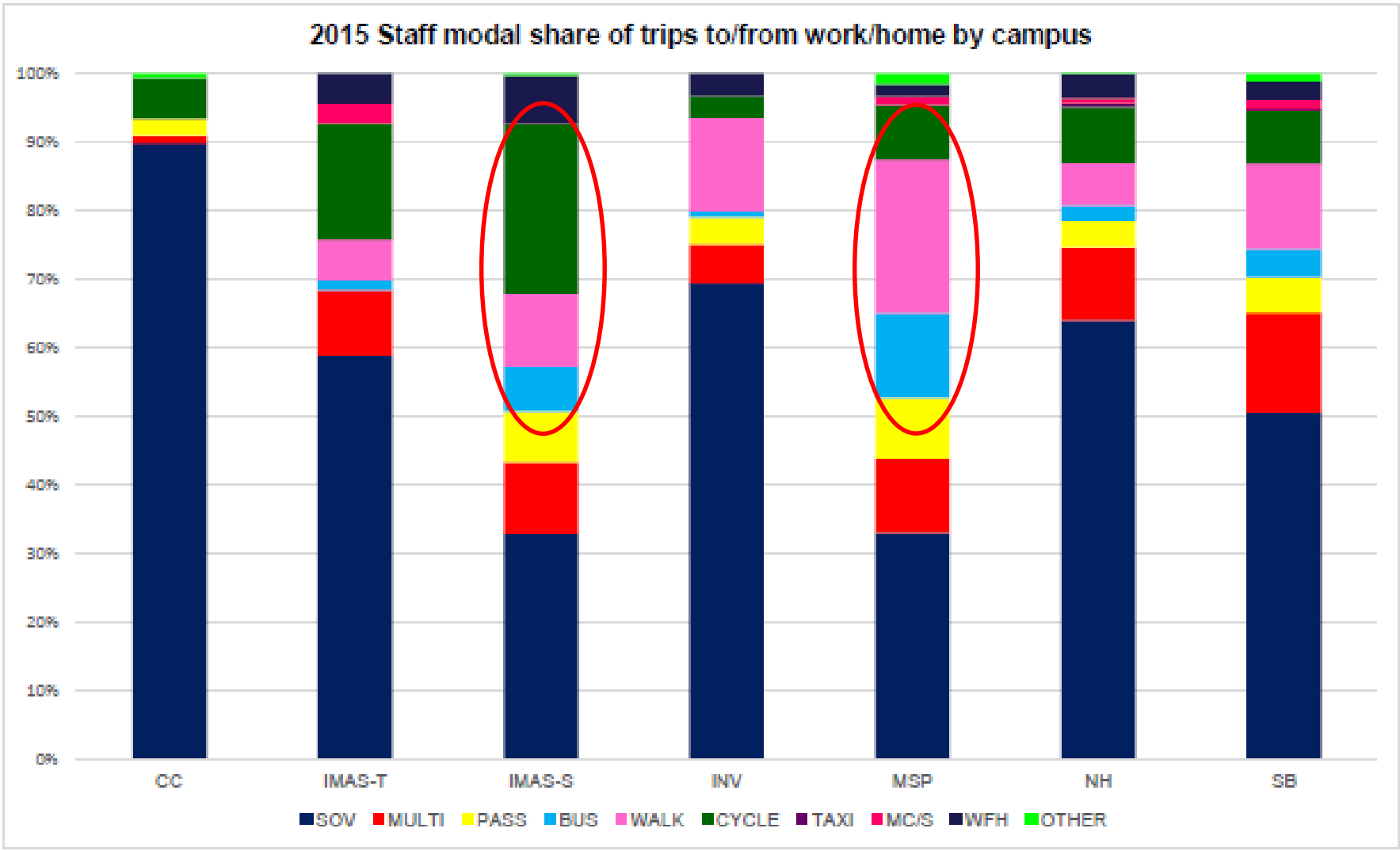



Figure 6: Most common combinations of multi modal trips

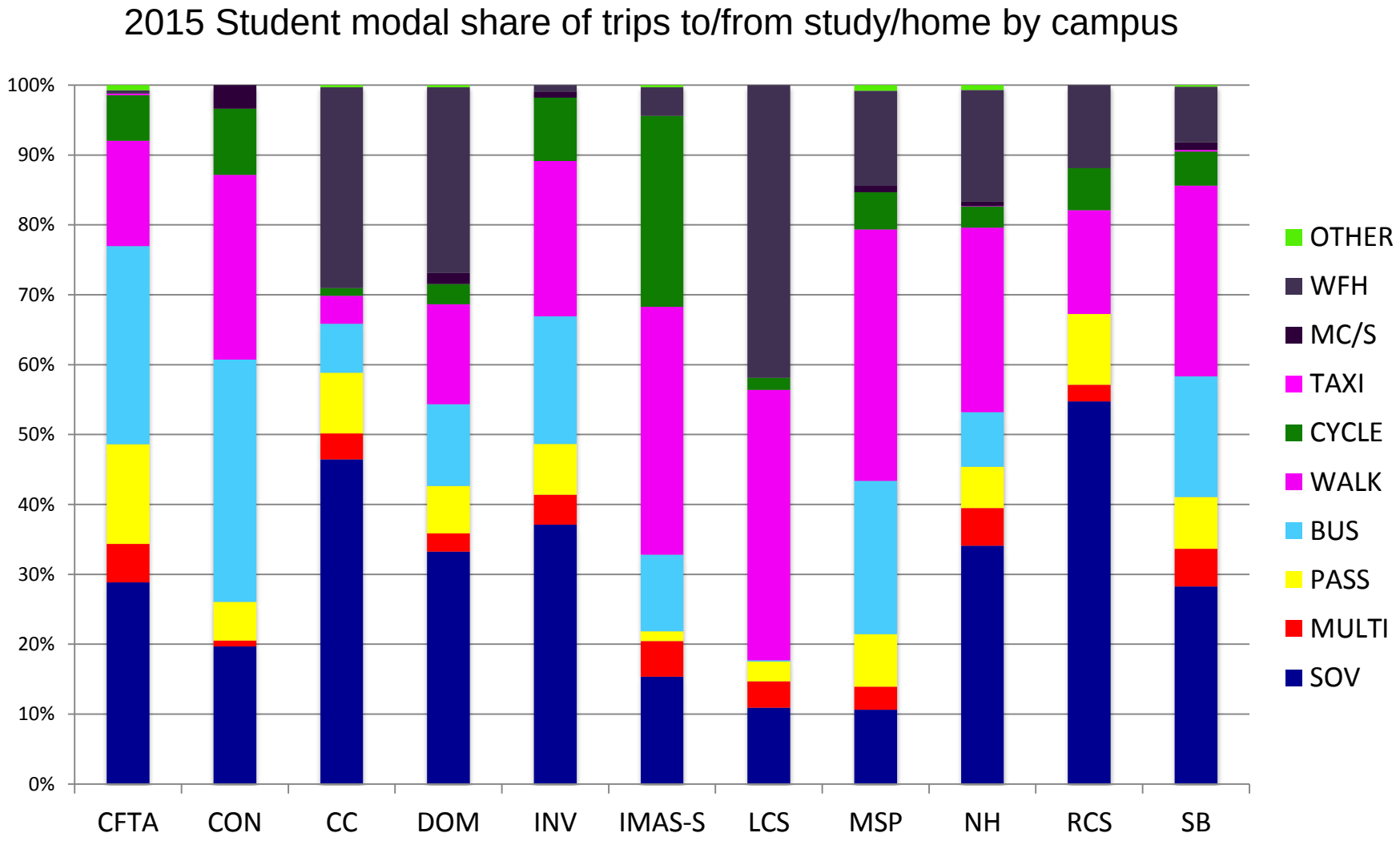
## Table 1: UTAS modal share of trips to/from work/home by region 2013/15

| MODE OF TRAVEL | SOUTH | | | | NORTH | | | | NORTH-WEST | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | STAFF | | STUDENTS | | STAFF | | STUDENTS | | STAFF | | STUDENTS | |
| | 2013 | 2015 | 2013 | 2015 | 2013 | 2015 | 2013 | 2015 | 2013 | 2015 | 2013 | 2015 |
| **Total number of trips** | 3545 | 3237 | 10111 | 12001 | 1329 | 1588 | 4237 | 5350 | 229 | 186 | 698 | 894 |
| **Drove single occupant** | 49.6% | 46.7% | 27.9% | 25.9% | 68.2% | 64.0% | 38.7% | 31.8% | 59.0% | 86.6% | 44.4% | 48.0% |
| **Drove multiple occupant** | 15.5% | 13.6% | 5.0% | 5.0% | 10.9% | 9.8% | 4.7% | 5.1% | 12.7% | 1.1% | 11.3% | 3.5% |
| **Car passenger** | 5.0% | 6.1% | 7.3% | 7.4% | 4.6% | 3.8% | 4.6% | 5.6% | 4.4% | 4.8% | 5.4% | 8.9% |
| **Bus / Coach** | 4.0% | 5.5% | 14.1% | 18.2% | 1.7% | 2.0% | 4.6% | 7.9% | 2.2% | 0.0% | 2.3% | 5.7% |
| **Walked** | 12.5% | 13.3% | 29.5% | 27.6% | 4.3% | 7.5% | 25.1% | 27.3% | 7.0% | 0.0% | 11.3% | 6.0% |
| **Bicycle** | 8.2% | 8.9% | 5.0% | 5.6% | 6.7% | 7.6% | 7.6% | 3.3% | 9.6% | 7.0% | 1.7% | 2.0% |
| **Taxi** | 0.5% | 0.3% | 0.1% | 0.1% | 0.0% | 0.6% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% |
| **Motorcycle / scooter** | 1.2% | 1.2% | 0.9% | 1.0% | 1.4% | 0.6% | 0.6% | 0.6% | 0.0% | 0.0% | 0.0% | 0.0% |
| **Water taxi / ferry** | NA | 0.0% | 0.0% | 0.0% | NA | 0.0% | 0.0% | 0.0% | NA | 0.0% | 0.0% | 0.0% |
| **Virtual transport** | 2.0% | 3.1% | 9.8% | 8.8% | 2.2% | 3.4% | 13.7% | 17.8% | 5.2% | 0.0% | 23.1% | 25.5% |
| **Other** | 1.5% | 1.0% | 0.2% | 0.3% | 0.1% | 0.2% | 0.2% | 0.6% | 0.0% | 0.5% | 0.4% | 0.2% |

# DIVERGENT STORIES BY CAMPUS – staff 2015



# DIVERGENT
# STORIES BY CAMPUS – students 2015



# COMPARISON WITH ABS DATA

Table 3: Comparing modal share to work - UTAS and ABS data for single mode journeys to work only (one point in time)

| MODE OF TRAVEL TO WORK | STAFF | ABS (2011)* |
|---|---|---|
| Car as driver | 70.9% | 74.9% |
| Car passenger | 5.1% | 7.9% |
| Bus/coach | 0.6% | 2.9% |
| Walked | 10.1% | 5.9% |
| Bicycle | 9.2% | 0.7% |
| Taxi | 0.2% | 0.3% |
| Motorcycle/scooter | 1.5% | 0.6% |
| Worked / Studied From Home | 3.0% | 5.3% |
| Other | 0.2% | 1.9% |

[1]

[1] Australian Bureau of Statistics 2011, *Census of Population and Housing: Working population Profile,* ABS, 15 May 2013, http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/communityprofile/6?opendocument&navpos=100

# BUS USE

Table 5: Awareness, use, future use of contracted inter-regional coach service

| | AWARE OF SERVICE | HAVE USED SERVICE* | WOULD CONSIDER FUTURE USE |
|---|---|---|---|
| Staff - Southern Tasmania | 69.1% | 6.5% | 41% |
| Students - Southern Tasmania | 30.4% | 7.5% | 34.7% |
| Staff - Northern Tasmania | 76.2% | 17.5% | 49.7% |
| Students - Northern Tasmania | 45.5% | 20.6% | 48.9% |

*Note: Have used service in the last year


Table 4: Share of staff and students who have a Metro Greencard

| | WHOLE OF UTAS | SOUTH | NORTH | NORTH-WEST |
|---|---|---|---|---|
| Staff | 28.5% | 35.3% | 15.1% | 3.3% |
| Students | 44.9% | 53.5% | 31.6% | 21.4% |

# SUSTAINABLE TRANSPORT PERFORMANCE BY REGION

| Performance by! region! / Mode share change! | STAFF | | | STUDENTS | | |
|---|---|---|---|---|---|---|
| | South | North | North West | South | North | North West |
| | 👍 | 👍 | 👎 | 👍 | 👍 | 👎 |
| Drove car - single occupant | ↙ | ↙↙ | ↗↗↗ | ↙ | ↙↙↙ | ↗↗ |
| Drove car - multiple occupants | ↙ | ↙ | ↙↙↙ | ≈ | ≈ | ↙↙↙ |
| Bus or coach | ↗ | ≈ | ↙ | ↗↗ | ↗↗ | ↗↗ |
| Walked | ↗ | ↗↗ | ↙↙↙ | ↙ | ↗ | ↙↙ |
| Cycled | ↗ | ↗ | ↙ | ↗ | ↙↙ | ≈ |
| Motorcycl or scooter | ≈ | ↗ | ≈ | ≈ | ≈ | ≈ |
| Virtual transport | ↗ | ↗ | ↙↙ | ↙ | ↗↗ | ↗ |

## LEGEND

### Regional performance

👍 Region heading in the right direction

👎 More attention required

### Mode share change

| | |
|---|---|
| ≈ | no change |
| ↗ | slight increase |
| ↗↗ | increase |
| ↗↗↗ | significant increase |
| ↙ | slight decrease |
| ↙↙ | decrease |
| ↙↙↙ | significant decrease |

# CONCLUSION

- Journey to and from UTAS for staff and students is not straightforward.
- How staff and students make this journey varies considerably – by campus
- Location, facilities and bus service availability do appear to influence mode.
- The role of values and attitudes? These are being investigated through qualitative methods (MSP and IMAS Salamanca August 2015)
- A two pronged approach to sustainable transport planning?

1) build on opportunities in urban areas to enhance sustainable mode choice

2) address areas of transport disadvantage outside the larger urban centres


# FURTHER WORK AND RESEARCH

- Active (walk and bike) inner urban zones – maintain the momentum
- Campus bus services – more direct service and frequency improvements are working (north and south)
- Regional/remote students – a bit of a 'wicked problem' so lets collaborate
- Sustainable transport and disability issues – what are the issues and how do we rate?
- Bike share/car share programs – is now the time?
- Sustainability & small cities/university town research – learning more about the economic and social benefits – what's our advantage now and into the future?
- Values and attitudes may also be influencing sustainable travel practices.

# MORE THAN JUST GOOD STRATEGIC AND TRANSPORT PLANNING PRACTICE


The Strategy also opened the door for a whole of institution sustainability approach and one that was relevant to the wider Tasmanian community.

Opportunities for ongoing student, organisational, & social learning opportunities

# Thank you!
# QUESTIONS?

**Sustainable Transport Strategy**

**and**

**Progress Report March 2014**

available for download:

www.utas.edu.au/commercial-services-development/sustainability/transport