

Capability Statement Institute for Sensible Transport



A photograph of a dark blue brick wall. At the top, there is a window with a light brown wooden frame. The window looks out onto a red brick wall and some green foliage. A curved, polished metal railing is visible on the right side of the image, curving from the bottom towards the middle. The overall scene is brightly lit, suggesting daytime.

Who we are and what we do

‘a city is judged
by the quality
of its streets.’

Jane Jacobs

The Institute for Sensible Transport is an Australian transport consultancy focused on helping cities become more vibrant and sustainable. We develop innovative, data-led transport strategies, rigorous analyses and carefully designed plans, all focused on helping to make cities more liveable, sustainable and vibrant.

As the urbanist Jane Jacobs said, a city is judged by the quality of its streets. We are committed to the application of evidence based, best practice transport strategy to help make city streets great.

We work with all levels of government, both in Australia and internationally on sustainable mobility, disruptive transport innovation, professional development, as well as policy and strategy formation.

Our key capabilities include:

- Disruptive transport innovation
- Active transport planning, forecasting and cost benefit analysis
- Bicycle plans, strategies, network designs, and 'complete streets' development
- Car parking policy and reform
- Active transport wayfinding strategy and design
- Study tours and seminars on transport innovation
- Electric bike policy and assessment of impacts
- Bike share feasibility and evaluation
- Transport emissions auditing and emissions reduction strategy development
- Place based transport plans
- Shared transport platform policy development.

Our People





Dr Elliot Fishman

Director

As the Director of the Institute for Sensible Transport over the past 15 years, Elliot has played a pivotal role in all of our major projects and leads our work on bike share, e-bikes, disruptive transport and professional development. Dr Fishman has extensive experience in the field of integrated transport planning, and was coordinator and lecturer of the Integrated Transport Planning course at RMIT University.

Dr Fishman's ability to inspire cities to think boldly about the city they want to be in 50 years is highly sought after, both in Australia and internationally. Elliot has led investigations for governments around Australia on emerging transport technology and the implications for policy makers. Dr Fishman is ranked by Stanford University in the top 2% of scientists globally. He completed his PhD at the Centre for Accident Research and Road Safety and his Post Doc at Utrecht University in the Netherlands.

Dr Fishman is a leading thinker on integrated transport and sustainable mobility planning, having provided advice to the Prime Minister's Office, Transport for London and the NYC Department of Transportation. In recent years he has prepared ambitious, best practice transport strategies for local governments in Victoria, South Australia, Tasmania and NSW. These have included land use and transport planning elements that have sought to maximise the beneficial components of emerging transport technology, such as MaaS possibilities and the shift from short car trips to active transport. Dr Fishman's innovative work on the possible impacts of driverless vehicles has led governments to rethinking how best to capitalise on the emergence of these technologies.

Elliot has written for The Age, Newscorp publications, the Canberra Times, Sydney Morning Herald as well as many of the world's highest-ranking peer reviewed transport journals. Elliot has undertaken work for the OECD and the National Government of Singapore. Dr Fishman is an experienced communicator and has facilitated a large number of transport planning workshops and has an excellent ability to write technical documents accessible to a wide audience.



Liam Davies

Senior transport analyst and cost benefit modeller

Liam is a Senior Transport Analyst and has worked for the Institute for Sensible Transport since late 2015. Prior to his appointment at the Institute for Sensible Transport, Liam was RMIT's top transport planning student, demonstrating his understanding of transport research and strategic principles, emerging issues and best practice transport innovation. He has an in depth knowledge of the Victorian Planning Scheme as well as the NSW DA and LEP process.

Liam's excellent GIS and analytical skills have helped our clients understand their current transport problems and his ability to envision a path towards a more sustainable, less car dependent future has proven tremendously valuable to the government agencies he has worked with. Liam has a deep understanding of all modes of public transport, including their operational and infrastructure requirements. There is always a public transport element in the projects Liam is involved in.

Vaughn Allan

Senior transport analyst

Vaughn has worked as a Transport Analyst at the Institute for Sensible Transport since 2017. He has also worked at the Department of Premier and Cabinet, and Bicycle Network. Vaughn has a very strong understanding of the Victorian Planning Scheme, transport data analysis, street redesigns, integrated transport, active transport and GIS based analysis and modelling.



Gary Tong

Mapping, data analyst and
graphic design

Gary makes sure the visual communication of our reports is clear, engaging and accurate. He brings data to life through the development of data visualisations, infographics, network maps and street cross sections.

Stewart Saunders

Transport analyst

Stewart has worked as a Transport Analyst with the Institute since 2020. He has previously worked for Monash University as a Research Support Assistant in the Monash Urban Lab. His studies in Urban Planning and in Architecture allow him to see our work through both design and policy lenses. Stewart assists with literature reviews, developing policy, processing data, and visualising data and proposals through maps, cross sections and infographics.

Our People



Selection of recent projects



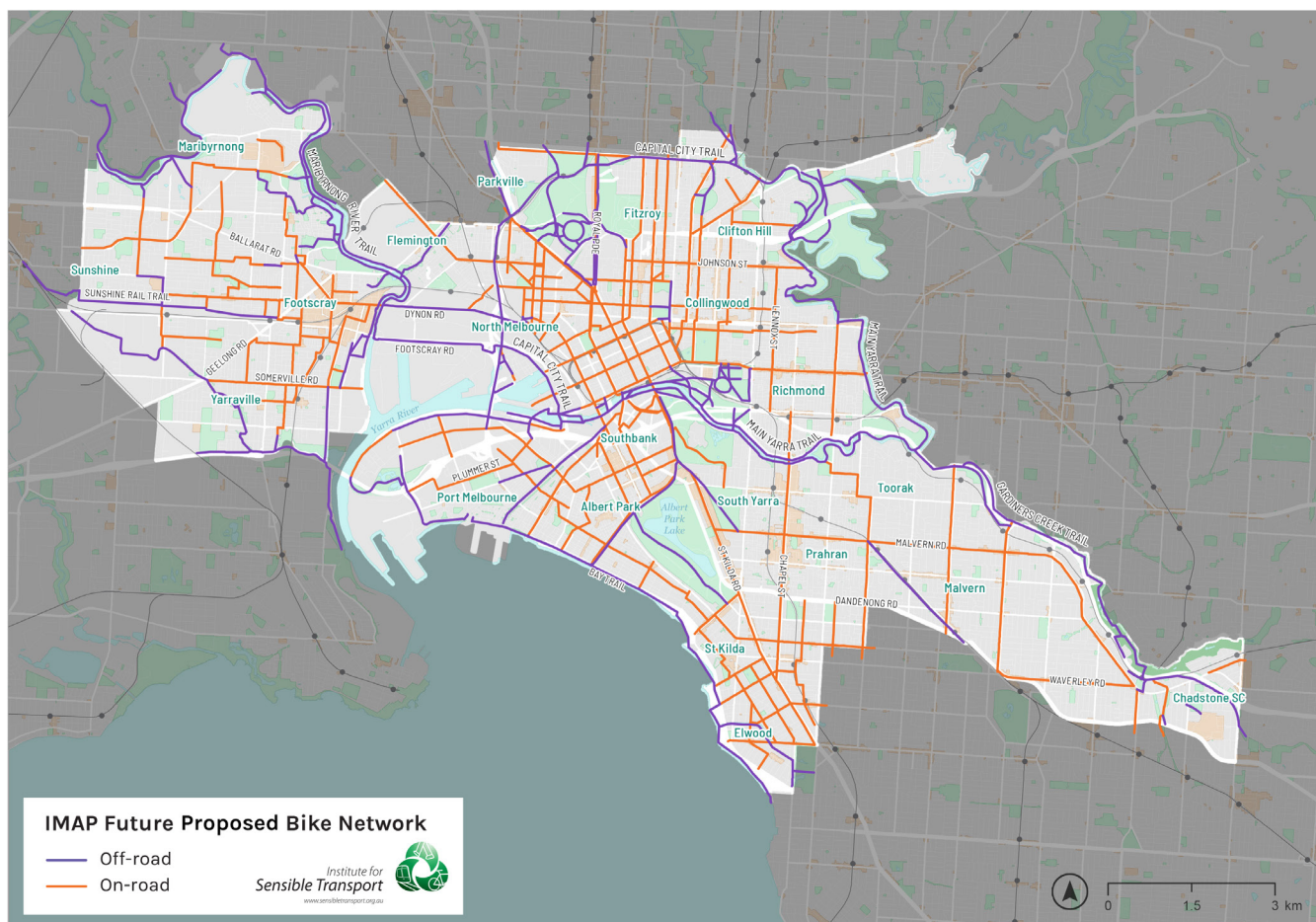
Melbourne Bike Network Model

City of Melbourne, City of Port Phillip, City of Stonnington, City of Yarra & Maribyrnong City Council; 2019

This project was commissioned jointly by Melbourne's five inner most Councils and Resilient Melbourne. It involved the development of a Model to determine the level of bike riding taking place across the Inner Melbourne Action Network (IMAP) and forecast the increase in bike riding due to infrastructure upgrades.

The Model provides a range of analysis options that can be visualised into either static or interactive maps. We provided maps that illustrated showing crash exposure, and the projected number of daily bike trips on every street and road in the study area. Additional analysis opportunities were also realised, including the ability to filter Model variables to create 'corridors of opportunities', including one that highlights areas most likely to mode shift from cars to bikes.

The Model was developed with a methodology designed to be easily updatable by Council staff and expandable to Greater Melbourne and other metro areas.



Bike Network

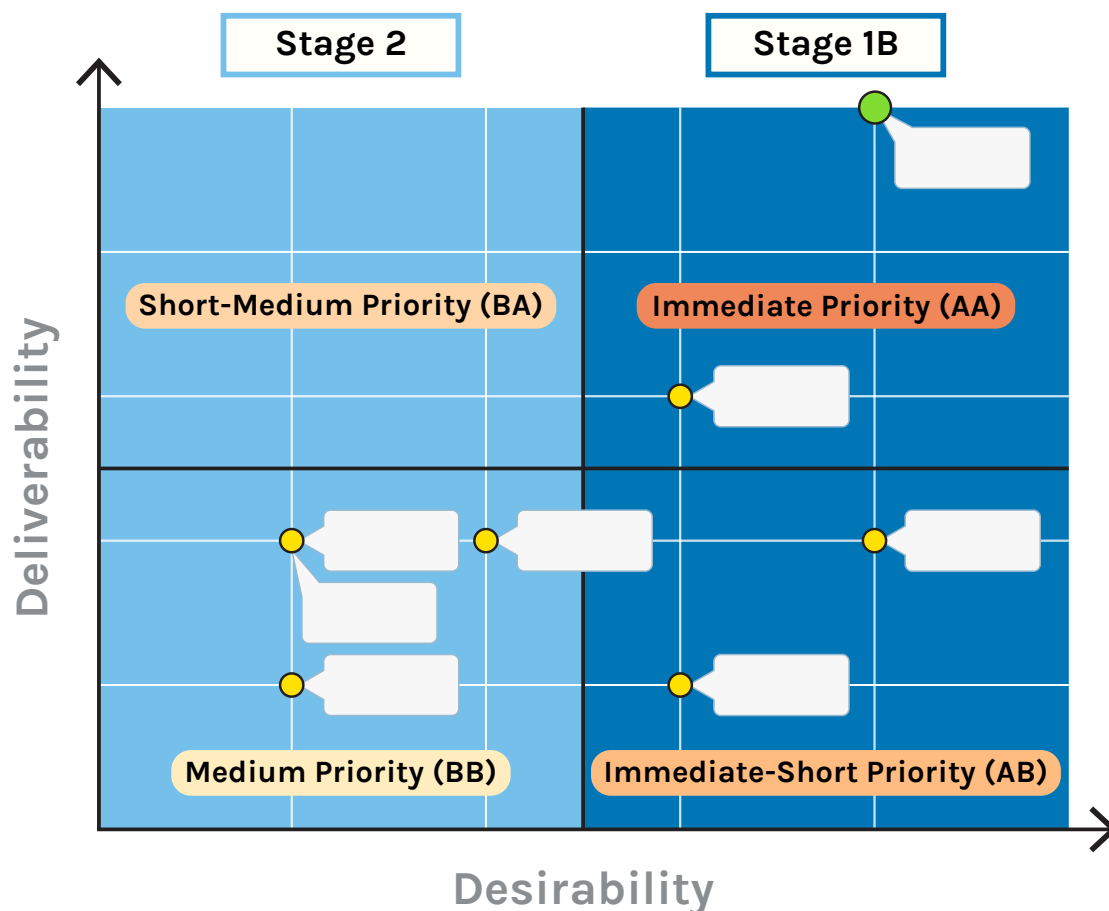
Bike Network Prioritisation Tool

Transport for NSW, 2020

We were commissioned by Transport for NSW to develop a geospatial prioritisation framework to assist in the staging of their proposed Principal Bicycle Network for Sydney and Parramatta. The Framework was able to analyse over 1,300km of future proposed network, providing a score across 16 individually weighted criteria.

Transport for NSW were presented with a representation of their proposed network, in terms of how each element performed across each of the 16 criteria. The 16 criteria were divided into *desirability* and *deliverability* categories. The *desirability* and *deliverability* conceptual framework (as shown below) was used to inform the development of the bike network, such as prioritising links and estimating latent demand for cycling.

Our network tool is also useful for costing the proposed network, and how the use of different designs can influence overall cost.



Desirability and deliverability conceptual framework

EV Charging Implementation Plan

City of Port Phillip, 2019

In partnership with SGS Economics and Planning, we led this project for the City of Port Phillip, to prepare their transition to a zero-emission fleet by 2028. This project involved a detailed analysis of best practice electric vehicle charge examples, from both Australia and overseas, and an audit of the Council's existing fleet.

We also developed a proposed publicly available charging network, including a policy to allow residents without off street parking to charge their vehicles.

Our work with the City of Port Phillip provided the blueprint for a zero emission fleet and a publicly available charging network.



A public charging network is essential for greening Australia's vehicle fleet

Sustainability Mobility Plan

City of Launceston, 2020

In partnership with SAGE Automation, we developed the Launceston Sustainable Mobility Plan. We worked as part of a larger consortium on a Smart Cities project designed to help Launceston take advantage of changes to transport technology (e.g. on demand transport, micro mobility) to support Launceston's ambition to become Australia's most liveable regional city.

The development of the Sustainable Mobility Plan included consideration of all modes of transport, as well as measures that take advantage of emerging technology to maximise the efficient use of space and resources.

Cycling was one component of this Plan and included an enlarged network of bicycle infrastructure. The map shown below was developed for this project and indicates both the type of bicycle infrastructure proposed and the estimated travel time to travel between key centres.



Launceston conceptual bike network showing existing and proposed routes with estimated journey times

Narre Warren Access & Movement Study

Casey City Council, 2020

We were commissioned by Casey City Council to prepare the Narre Warren – Fountain Gate Access and Movement Strategy. The Strategy identified transport and infrastructure projects to support a recently adopted Structure Plan for the Fountain Gate Narre Warren Metropolitan Activity Centre. The project was funded by the Victorian Planning Authority's Streamlining for Growth Grant.

We used a mix of Census data, number plate surveys, and site visits to develop a deep understanding of how people access the area and where they come from. This project delivered a set of recommendations covering enhancements to the pedestrian environment, enhanced cycling options, better integrated public transport and more effective parking management. We also delivered recommendations designed to reduce the impact of through traffic on the activity centre.

This Access and Movement Strategy provided a comprehensive set of actions designed to change the transport landscape in Narre Warren Fountain Gate, in order to achieve the goals set out in the Structure Plan, and the targets established in this Strategy. The key challenges and actions are summarised in the figure below.



Narre Warren's major transport challenges and key actions

Yarra Ranges Integrated Transport Strategy

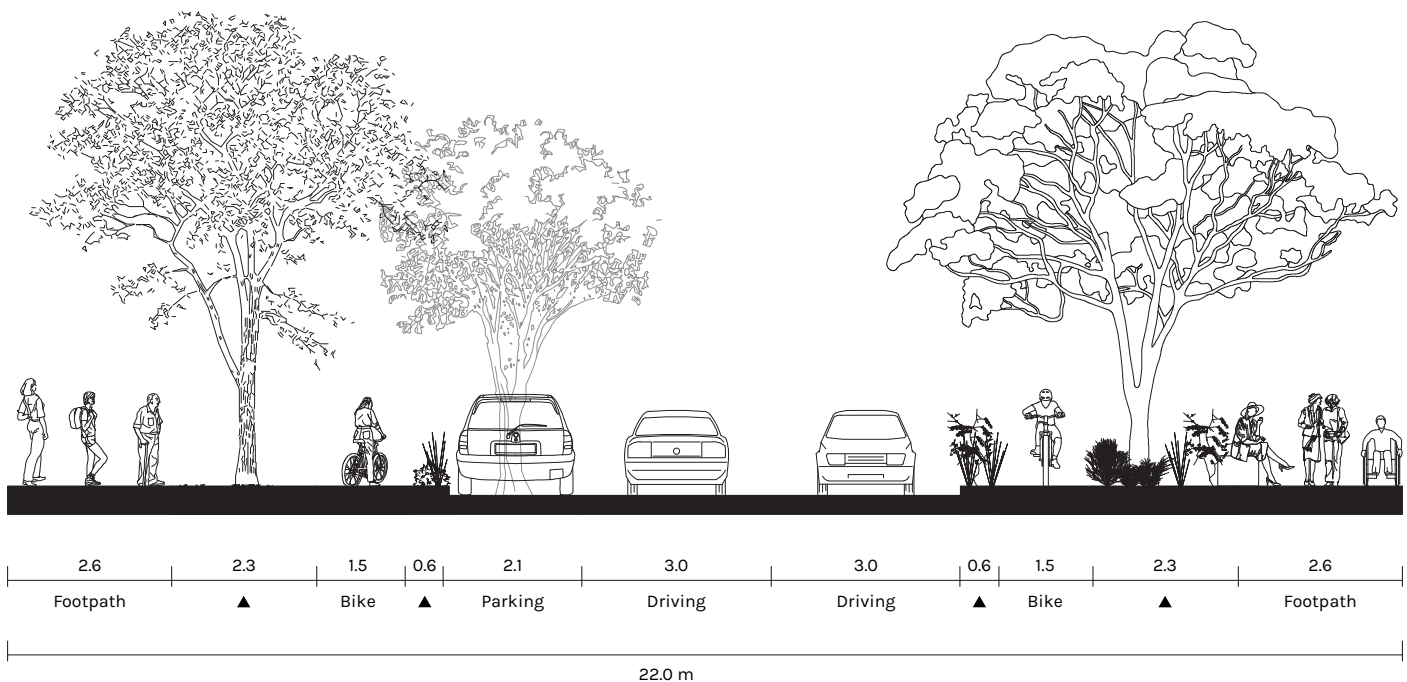
Yarra Ranges Council
2018

We prepared a 20-year Integrated Transport Strategy for Yarra Ranges, a peri-urban and partly rural municipality on the eastern fringe of Melbourne. The Strategy was endorsed by Councillors in May, 2020.

Community consultation was an important element in the development of the Strategy, and this included pop up sessions, online surveys and interactive online maps of both the strengths and limitations of the transport system.

A detailed analysis of existing travel behaviour was undertaken, and this found that over half of all car trips were under three kilometres, partly dispelling the myth that most car trips are too long to do by foot or bike. Our analysis of land use patterns also found that 90% of the population lives in just 9% of the land area.

In the Yarra Ranges, where many streets were designed decades ago, the strategy delivers a set of preferred street redesigns (as shown below) to adapt to today's transport and liveability challenges.



A preferred street redesign for Yarra Ranges' Activity Centres

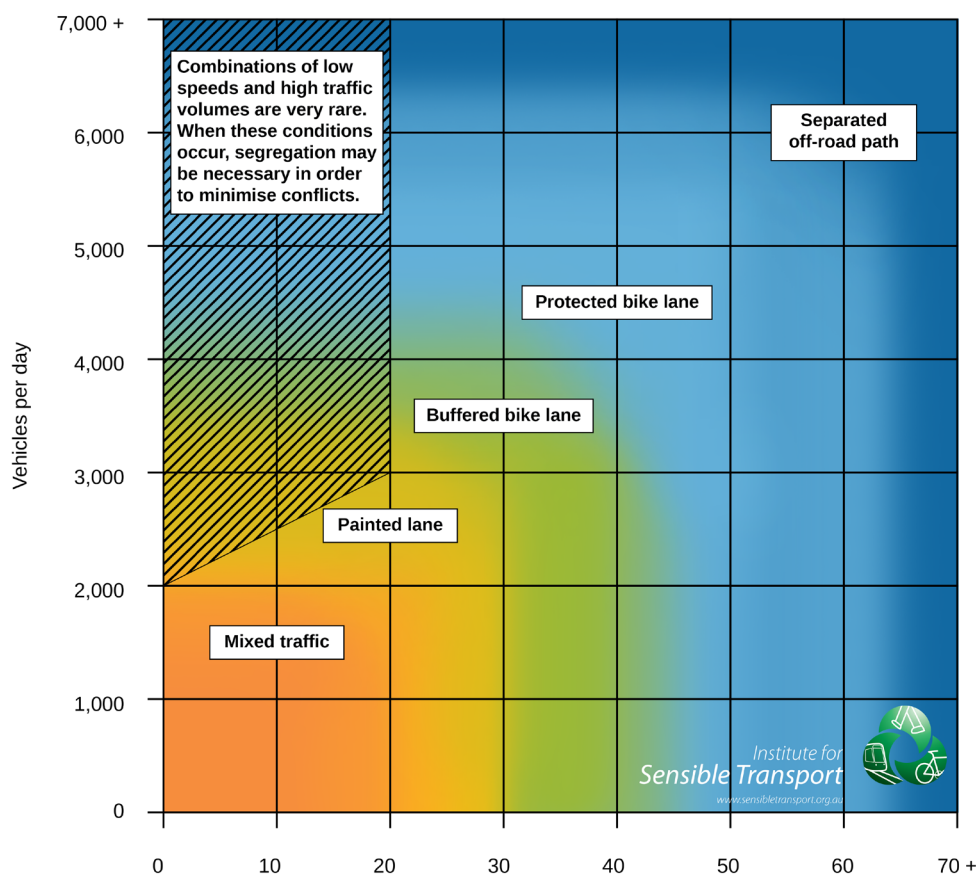
Australian Guidelines for Active Travel

Austrorads / Australian Transport Assessment and Planning, 2020

We have been commissioned by Austrorads/Australian Transport Assessment and Planning (ATAP) to update the national Guidelines for Active Travel assessment and planning. This project has required our team to immerse themselves in the latest data/literature regarding:

- Walking and cycling planning
- Impact and evaluation methodology
- Health impact assessment
- Road safety
- Best practice network design.

The Guidance document is designed to assist practitioners responsible for the planning, design and evaluation of active transport infrastructure.



Tool to determine appropriate bike infrastructure design

Darebin Parking Strategy: Issues and Opportunities

Darebin
City Council,
2018

This project involved a detailed policy and data analysis on issues related to car parking, to assist Darebin City Council as it began a process of car parking policy reform.

This project enabled our team to demonstrate what can be gained by reforming parking policy, including the opportunity created when unnecessary parking is replaced by wider footpaths, more green space, protected bicycle lanes and public transport priority routes.

The two images below offer an impression of the conceptual proposal we were able to offer the client, highlighting that when kerbside parking is removed, more space is available for protected bike lanes, dedicated tram routes and more reliable and less frustrating general traffic lanes. Creating these multi-modal 'complete streets' is a core part of our work.



High Street, Thornbury, VIC
(current)



High Street, Thornbury, VIC
(conceptual proposal)

Transport and Emissions

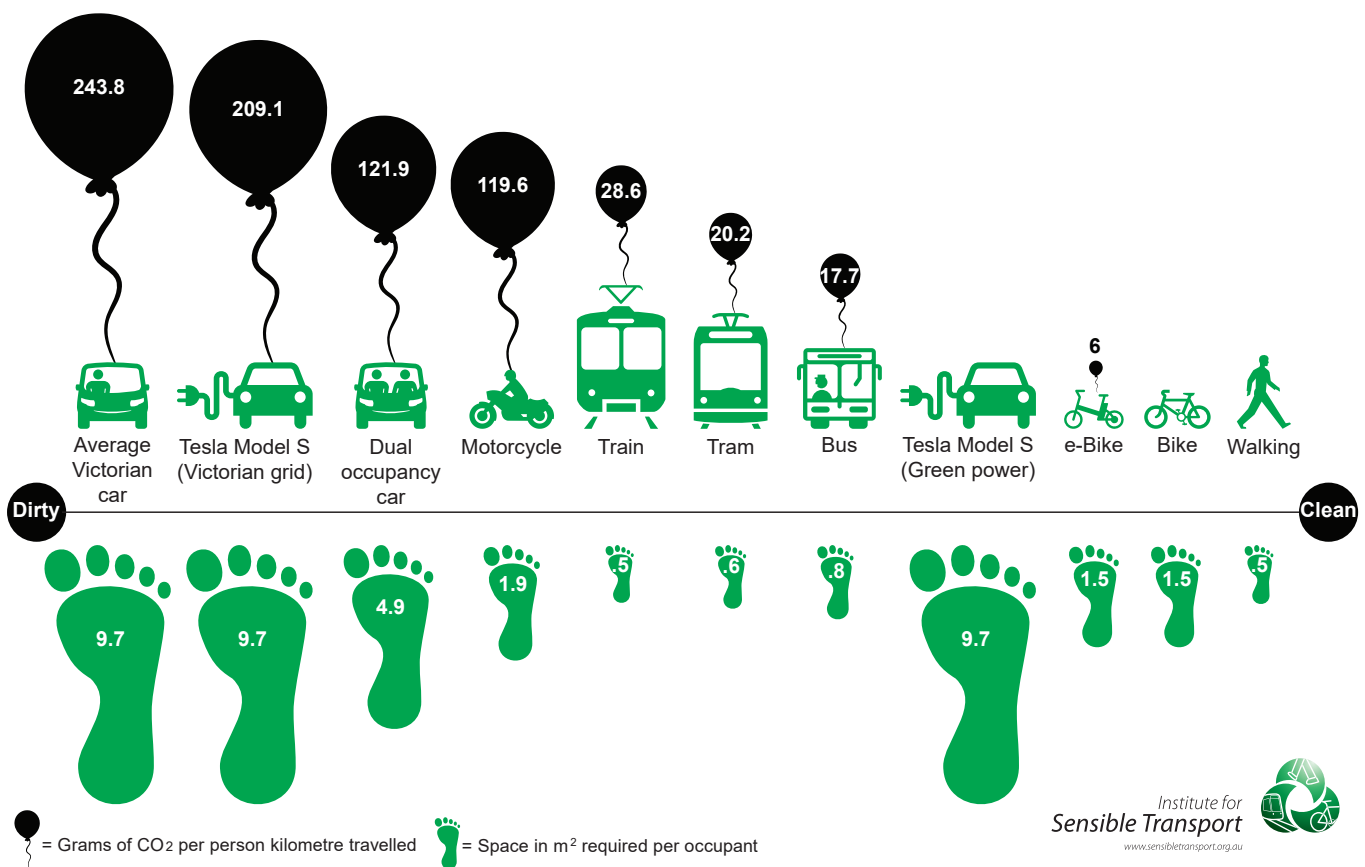
City of Melbourne,
2018

We assisted the City of Melbourne in developing a stronger understanding of the emissions within their municipality attributable to transport (air, land, water).

We were able to provide a snapshot and data led discussion of current trends in transport emissions. We aligned the City of Melbourne's method of calculating emissions with international (GPC) protocols. This project also provided a set of recommendations designed to bring the City of Melbourne's transport emissions in line with climate change commitments.

To help illustrate the relationship between emissions, and space consumption, we developed the infographic shown below, which demonstrates why public and active transport are so important for growing cities seeking to reduce their emissions and congestion levels.

The black balloons represent emissions, while the footprints represent the space consumption of the different transport modes shown.



Understand the emissions and space intensity of different transport modes

Dockless Bike Share Parking Infrastructure Guidelines

VicRoads,
2017

Melbourne, like many other cities, witnessed the unplanned introduction of dockless bike share in 2017.

In this work, we assisted the Victorian government develop an understanding of the parking requirements of dockless bike share and what measures could be taken to enhance the contribution of this growing mode of transport to mobility options in cities.

In this VicRoads commissioned report, we highlighted the experience of other cities with dockless bike share and identified strategies that could be used in Victoria to enhance micro-mobility options while protecting the public realm from an influx of randomly placed bikes.



The problem associated with poorly designed bike share in Melbourne

Homebush Bay Wayfinding Strategy and Masterplan

City of
Canada Bay,
2017

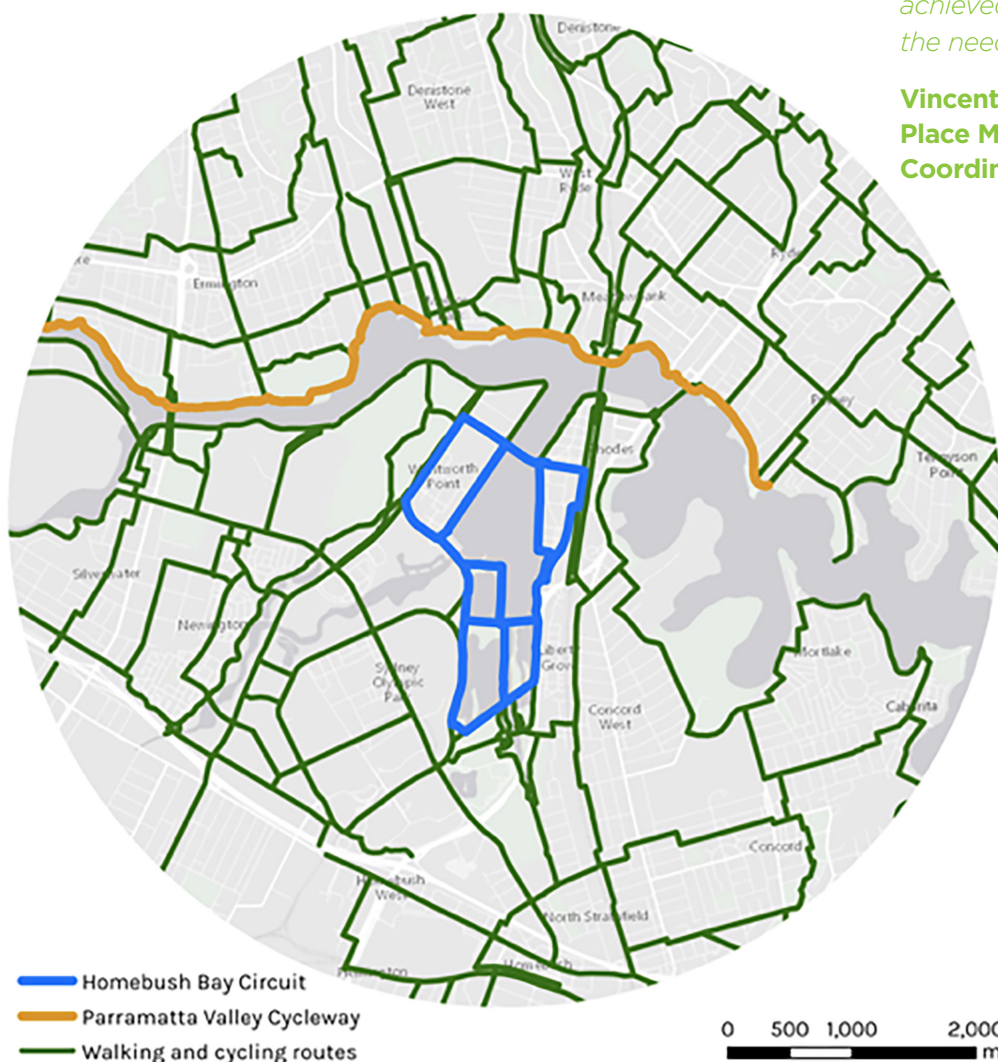
We led an international consortium to deliver a comprehensive design for a cohesive walking and cycling circuit around Sydney's iconic Homebush Bay, the site of the 2000 Olympics.

This Homebush Bay Wayfinding Strategy and Masterplan was commissioned by the City of Canada Bay, Sydney Olympic Park Authority and the City of Parramatta, and funded by the NSW Government.

Testimonial

"The Institute for Sensible Transport were able to demonstrate an exceptional understanding of world's best practice in balancing the needs of different modes of transport and integrating more walking and cycling into local travel...(They) utilised graphically clear street cross sections and mapping demonstrating that the provision of safe and attractive walking and cycling facilities could be achieved on the Circuit while recognising the needs of motorists"

Vincent Conroy,
Place Management
Coordinator, City of Canada Bay



We developed a comprehensive walking and cycling network, integrated with wider transport opportunities in Sydney

Bike Plan

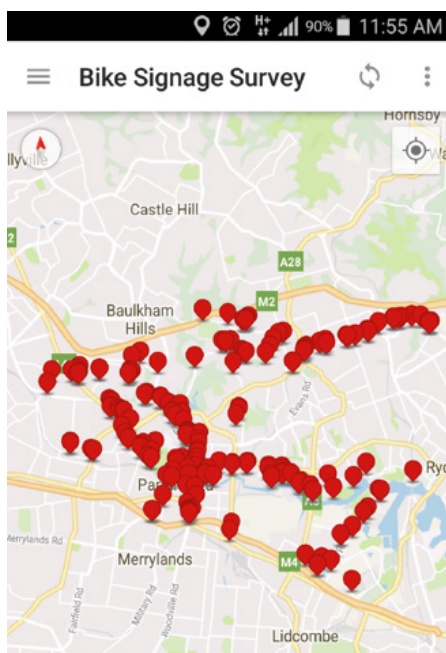
City of
Parramatta,
2017

As Parramatta continues its urban intensification and rapid population growth, we assisted the City of Parramatta in the development of a detailed Bike Plan, designed to boost the contribution of cycling to meeting current and future transport challenges.

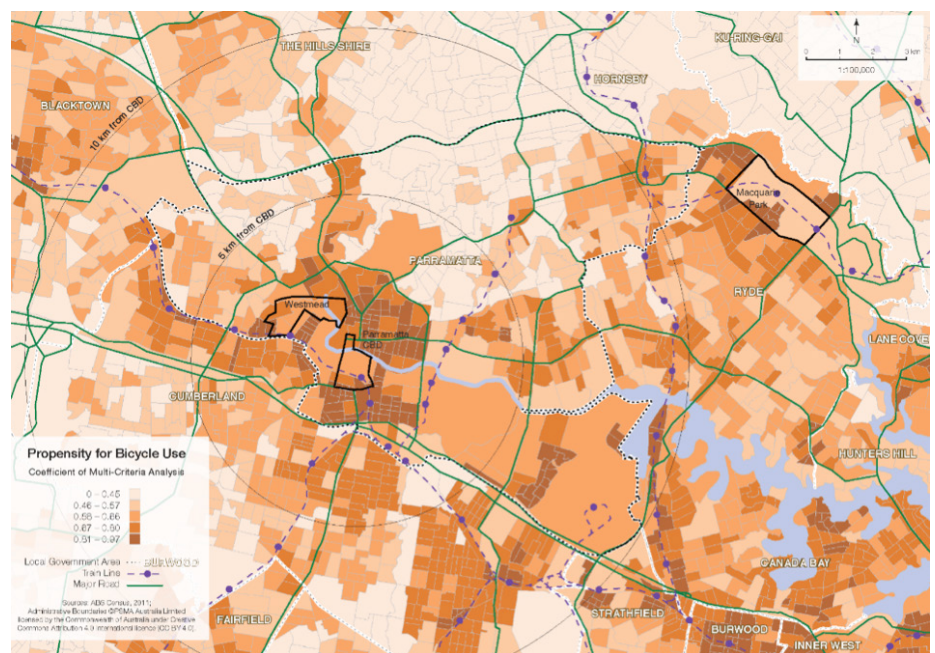
This project involved a 'saddle survey' using HD handlebar mounted video and a specially designed mobile app to document existing conditions and potential improvements (see snapshot of data overview below).

A detailed network of bicycle lanes and paths were recommended, costed and usage forecast provided over the next 30 years, taking into account government estimates of population growth rates.

We were able to provide Parramatta with a cost benefit ratio, offering an indication of the long-term return on investment in building their bicycle network. To ensure that the bicycle infrastructure was being recommended in the areas with the highest latent demand, we developed a data-led Bike Use Propensity Index, utilising Census and bicycle count data, the results of which are shown below. This helped to ensure the infrastructure recommended was being placed in the areas most likely to be used.



The collection of detailed, local data in a GIS format is essential to our approach



A data-led illustration of where latent demand exists for future cycling

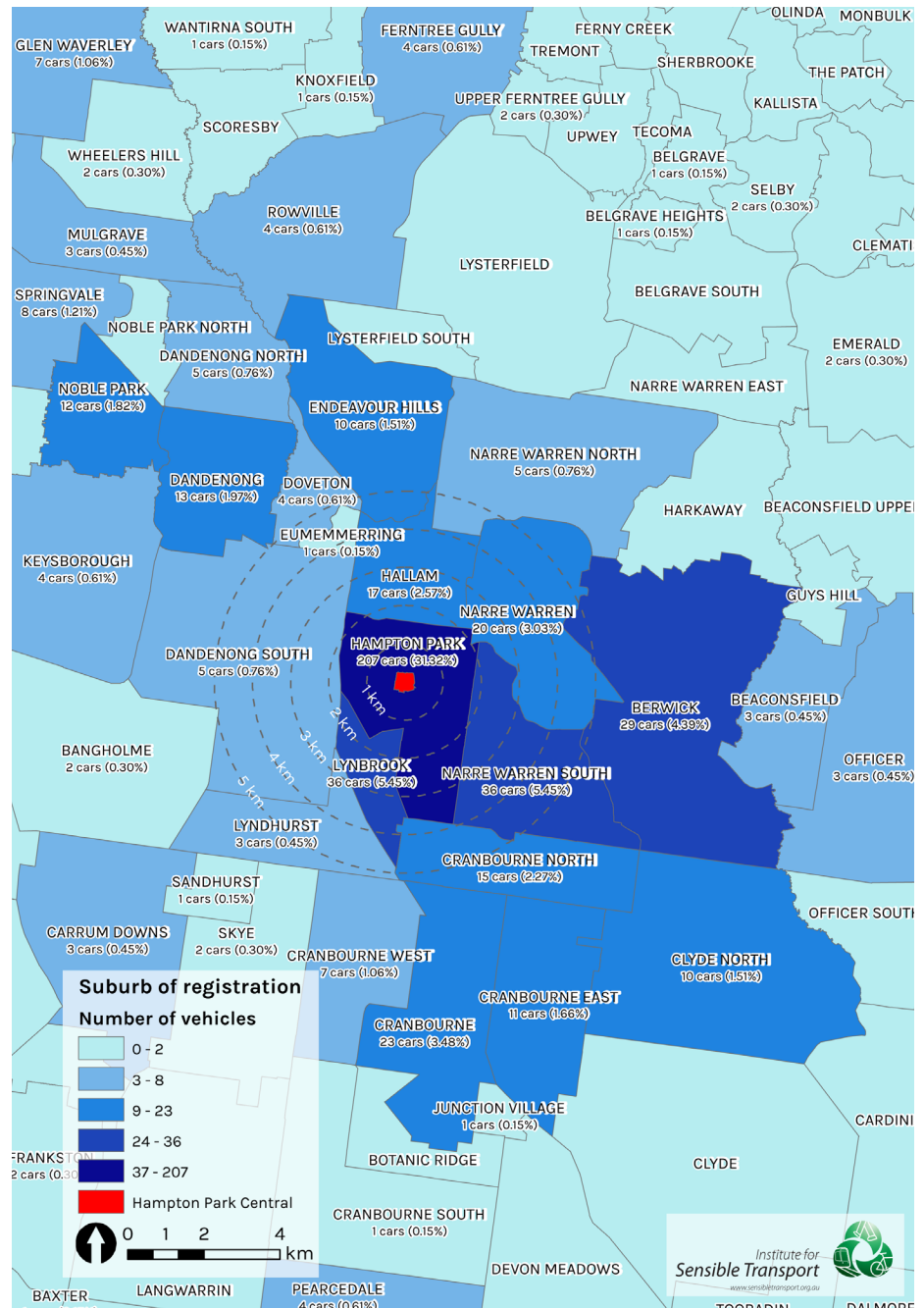
Hampton Park Central Access and Movement Study

Casey
City Council,
2017

We recently completed this place-based transport plan for Casey City Council.

The focus was on people, rather than vehicles and this led to a design process in which priority was offered to pedestrians, cyclists and public transport users, as these are the modes that are current under-represented within this Activity Centre.

As with all our work, a data-led approach was taken and this included an analysis of the address of registration for the vehicles parked within the study area (see image below). This provided our team with insights as to the likely distance people may have been travelling to arrive at the Activity Centre. Most vehicles were registered at the same, or an adjoining postcode to the study area itself.



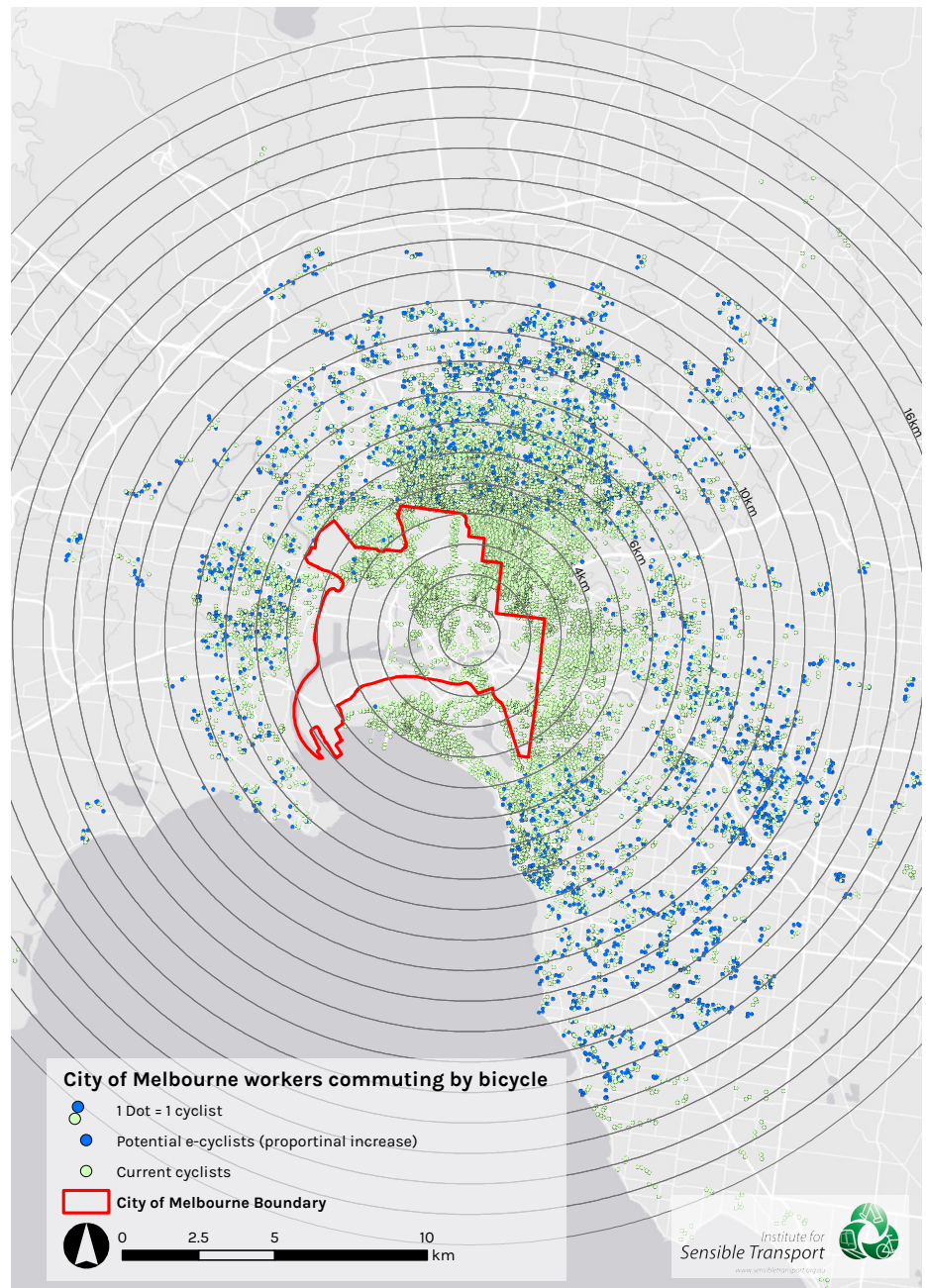
Understanding where cars are registered

Potential for electric bike use in Melbourne

City of Melbourne, 2018

As part of the City of Melbourne's Transport Strategy Refresh, we provided an analysis of the potential for e-bikes to contribute to the growing transport task facing a fast-growing Melbourne.

This project included an overview of the latest developments in the e-bike market, the influence e-bikes are having on travel behaviour in other markets and what the City of Melbourne can do to maximise the contribution of e-bikes to provide safe, efficient mobility.



Helping the City of Melbourne understand the potential for e-bikes to meet the growing transport challenge

Transport innovation study tour to the Netherlands

The Institute for Sensible Transport uses its extensive network of Dutch transport and land use experts to curate a week-long tour of transport innovation in the Netherlands.

An emphasis is placed on translating best practice examples into the Australian context and past attendees have included representatives from Infrastructure Australia, Transport for NSW and local government transport planners and Councillors from around Australia.

Our study tours look at the Dutch transport and land use system as a whole, with a focus on lessons that can be translated into more car dependent contexts. Whilst it is impossible to ignore cycling in the Netherlands, our study tours take a broader view, encompassing the full set of transport options in the Netherlands and what it means for Australian cities.



The 2018 study tour delegates learning about street transformation and vibrancy from the chief landscape architect, City of Amsterdam

Professional development seminars

2010
- ongoing

The Institute for Sensible Transport have, for over eight years, held professional development seminars on a range of emerging transport topics.

These include seminars on:

- Innovations in parking policy and practice, with the world's foremost authority on the topic, Professor Donald Shoup.
- App and ride sharing services and the impact on mobility, with Professor Allan Fels, Uber and the taxi industry.
- The Psychology of Transport Behaviour with New York Times best selling author, Tom Vanderbilt.
- Road user pricing and autonomous vehicles with former Victorian Premier John Brumby, Reserve Bank Board Member Professor Ian Harper, and the then Productivity Commission Chairman Peter Harris.



The former Premier of Victoria, John Brumby AO, delivering his Keynote address at our seminar on road user pricing in 2017

Sydney Bike Share Feasibility Study

Inner Sydney Councils,
2017

We assisted a group of inner Sydney Councils understand the global context regarding the rapidly changing international bike share industry.

Our work included:

- Bike share case studies from London, NYC, Washington, D.C., San Francisco, Melbourne, and Brisbane.
- Key benefits and opportunities for bike share in Sydney.
- Integration of a future Sydney bike share program with public transport, including options for Smartcard compatibility.
- Bike share propensity index: This was developed as a map of Sydney, indicating areas of high and low forecast bike share use.
- Design principles for the placement of docking stations.
- Assessment of suitable bike share hardware for Sydney.
- Optimal process for user sign up and customer interface.
- Consideration of helmet requirements and potential measures to mitigate lower usage levels due to existing legislation.
- Bicycle infrastructure network and impact on usage
- Potential funding sources and program costs.
- Governance and contract management.



Integrating sustainability

Creating more sustainable cities and towns through transport innovation underpins everything we do. Naturally, our commitment to sustainability also covers our own business practices.

We lower our environmental footprint everyday through the following actions:

- Our office is powered by 100% certified Greenpower (wind)
- Use public transport and cycling as our default mode of transport to the office, meetings and site visits. Use an electric vehicle when travelling beyond the active or public transport network
- Only use 100% post consumer waste recycled paper in the office
- Offset our emissions from air travel and only choose to travel by air when there are no other options
- Use green/biodegradable cleaning products in the office.



The former Premier of Victoria, John Brumby AO, delivering his Keynote address at our seminar on road user pricing in 2017

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